



Sustainability Report 2022



About this report

Gulf Energy Development Public Company Limited (“GULF” or the “Company”) stands by the principles of transparency, accuracy and timeliness and has therefore prepared an annual Sustainability Report since 2018 to communicate its non-financial and environmental, social and governance (ESG)-related disclosures to stakeholders. This Sustainability Report covers the Company’s information and activities related to sustainability from 1 January 2022 to 31 December 2022 and is prepared in accordance with the Global Reporting Initiative (GRI) Standard. This report includes information on the Company’s ESG targets, performance, and management approach related to its material topics, with data coverage of 100% of the Company’s operations according to the reporting boundary for each ESG dimension.

The reporting boundary has been revised from previous annual reports to include only entities where GULF has direct management control, namely, Gulf Energy Development Public Company Limited and its subsidiaries, unless otherwise stated. The detailed list of companies under the reporting boundary can be found in the Annual Report (56-1 One Report) on pages 218 – 225.

External assurance for selected topics may be found on the Company’s website at www.gulf.co.th/en/pdf/Assurance-2022.pdf

For more information, please contact the Sustainability and Risk Management Department at:
87 M.Thai Tower 11th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok 10330
Email: sustainability@gulf.co.th
Tel: 02-080-4499

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MESSAGE FROM THE CEO



Dear Value Shareholders,

This past year has been one of hope for a strong recovery in the post-Covid era but also one of the challenges brought about by global inflation, geopolitical tensions, and widespread economic impacts. Most certainly, it has highlighted the need for more resilient and sustainable solutions to multiple aspects of everyday life, especially food and energy management.

As a leading company that has its beginning in Thailand's energy sector, Gulf Energy Development

Public Company Limited ("GULF") has always believed that our business success must be achieved in conjunction with an improvement in the quality of life of our stakeholders and the general society. As such, we have, from the very beginning, maintained a commitment to conduct business in a responsible manner in order to drive sustainability in the economic, environmental, and social dimensions within the framework of good corporate governance.

In 2022, we were able to make good progress towards our vision, with significant successes in business growth – such as the full commercial operation of our GSRC power project, which will support development in the Eastern Economic Corridor, as well as the signing of Tariff MOUs for two hydroelectric power projects which will provide clean energy to the country – along with key achievements in our environmental, social and governance (ESG) management.

Environmental

We have maintained our robust approach to environmental management, allowing us to achieve our target of Zero Operational Waste to Landfill for the third consecutive year, as well as applying innovative solutions to improving operational efficiency, which has led to good performance in terms of maintaining air and water quality. Significantly, our efforts have resulted in reduced fuel consumption, translating into over 70,000 metric tons of avoided greenhouse gas emissions.

Building on these successes, GULF will continue strengthening our commitment to climate mitigation to support the global aspiration of achieving net zero greenhouse gas emissions by 2050. We have adopted a more aggressive target to increase the proportion of our renewable generating capacity to 40% of the total installed capacity within 2035. We are on track to achieving our target of a 25% reduction in Scope 1 greenhouse gas emissions intensity by 2030 compared to 2019.

Social

We have continued to apply our IMPACT framework to our social and community development work. Through our dedicated Community Relations team and with the participation of numerous employees across all functions of our organization, GULF conducted dozens of community investment programs which reached over 166,000 beneficiaries in 2022, or a cumulative total of over 800,000 beneficiaries since 2020, bringing us one step closer to achieving our target of helping one million people in five years.

Governance

Without doubt, 2022 has also been a significant year for GULF in terms of enhancing our governance, especially with regard to ESG issues. To demonstrate our support for and commitment to anti-corruption, human rights, and other vital matters, we have become a member of the United Nations Global Compact (UNGC). We also completed our journey to joining the Thai Private Sector Collective Action Against Corruption (CAC), having become officially certified as a member in March 2022. In addition, we have achieved ISO 27001 certification for our information security management system, which will help support our expansion into the retail energy business, including the digital, telecommunications, and virtual businesses.

We recognize that these achievements would not be possible without support from our Board and management as well as all our employees. After all, sustainability is a joint effort that requires hard work and a long-term commitment. For this reason, we have also focused our work over the past year on building our internal capabilities and strengthening our long-term planning to better deliver on our sustainability commitments.

I would like to reiterate our belief that GULF's success should be achieved through positive action that enhances the quality of life for everyone in society. We will continue to strive towards these aspirations to contribute to a bright and sustainable future for all.

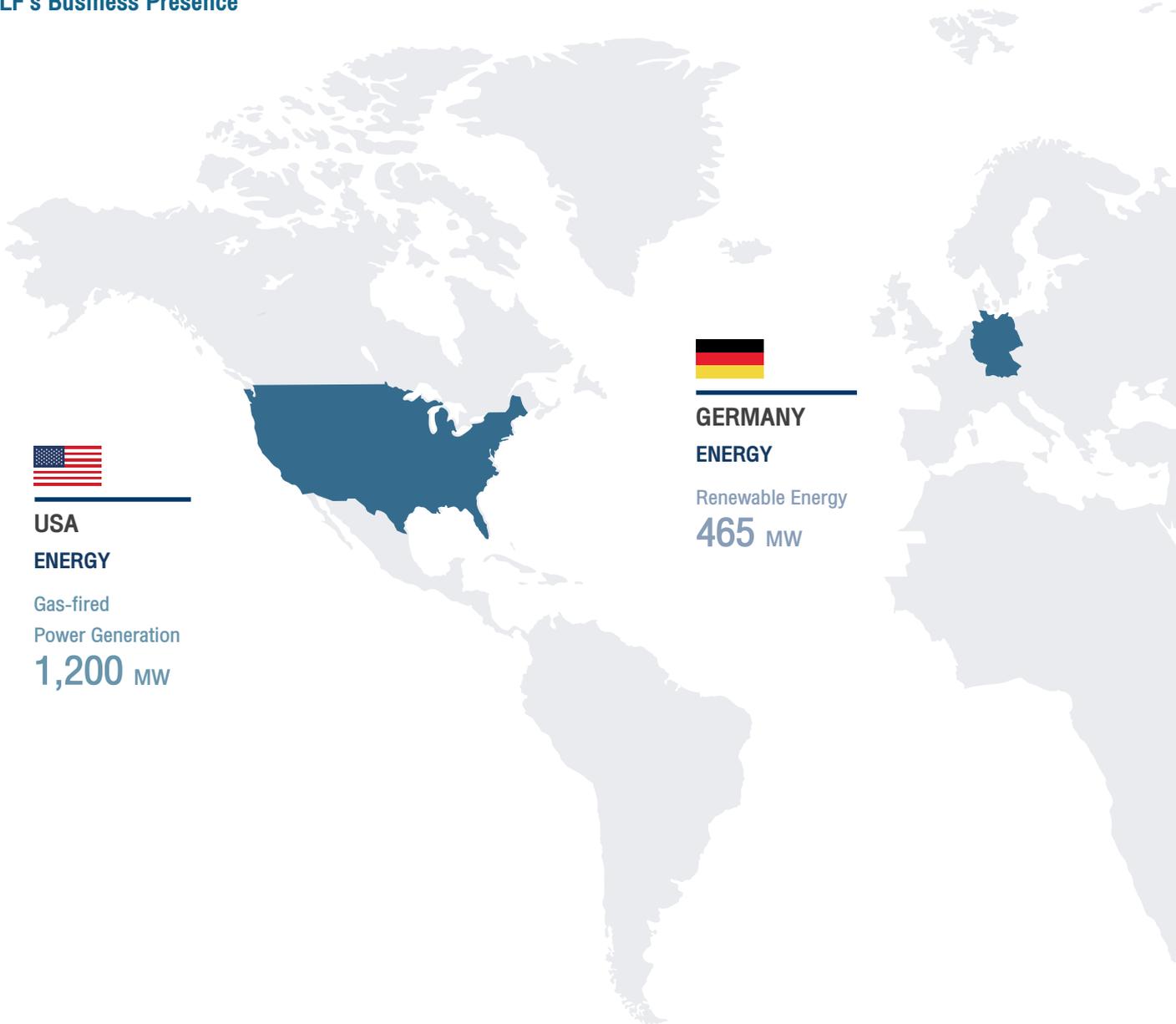


Mr. Sarath Ratanavadi
Chief Executive Officer

ABOUT GULF

Gulf Energy Development Public Company Limited (“GULF” or the “Company”) is a holding company and a leading energy and infrastructure company based in Bangkok, Thailand with a portfolio covering gas-fired and renewable energy, infrastructure and logistics, and digital businesses. The Company has projects in a number of countries across three continents. GULF was established in 2011 and listed on the Stock Exchange of Thailand in December 2017. The Company has continued to expand and diversify its business in line with its commitment to improve people’s quality of life by strengthening the physical and digital infrastructure of Thailand and supporting the energy transition.

GULF's Business Presence



Revenue (THB mn)
101,397

Dividend per share (THB)
0.60

Total installed capacity:



Gas-fired
14,861 MW



Wind
770 MW



Solar
252 MW



Biomass
25 MW



THAILAND
ENERGY

Gas-fired
Power Generation
13,335 MW

Renewable Energy
335 MW

- Gas
- LNG Shipper License
 - LNG Terminal
 - Natural Gas Distribution

INFRASTRUCTURE

- Deep-sea Container Port
- Motorways (O&M)
- Liquid Tank Farms
- Electricity Distribution System & District Cooling System

DIGITAL

- Investment in INTUCH & THCOM
- Data Center
- Digital Asset Exchange



VIETNAM
ENERGY

Renewable Energy
247 MW



OMAN
ENERGY

Gas-fired
Power Generation
326 MW

Number of employees
1,074

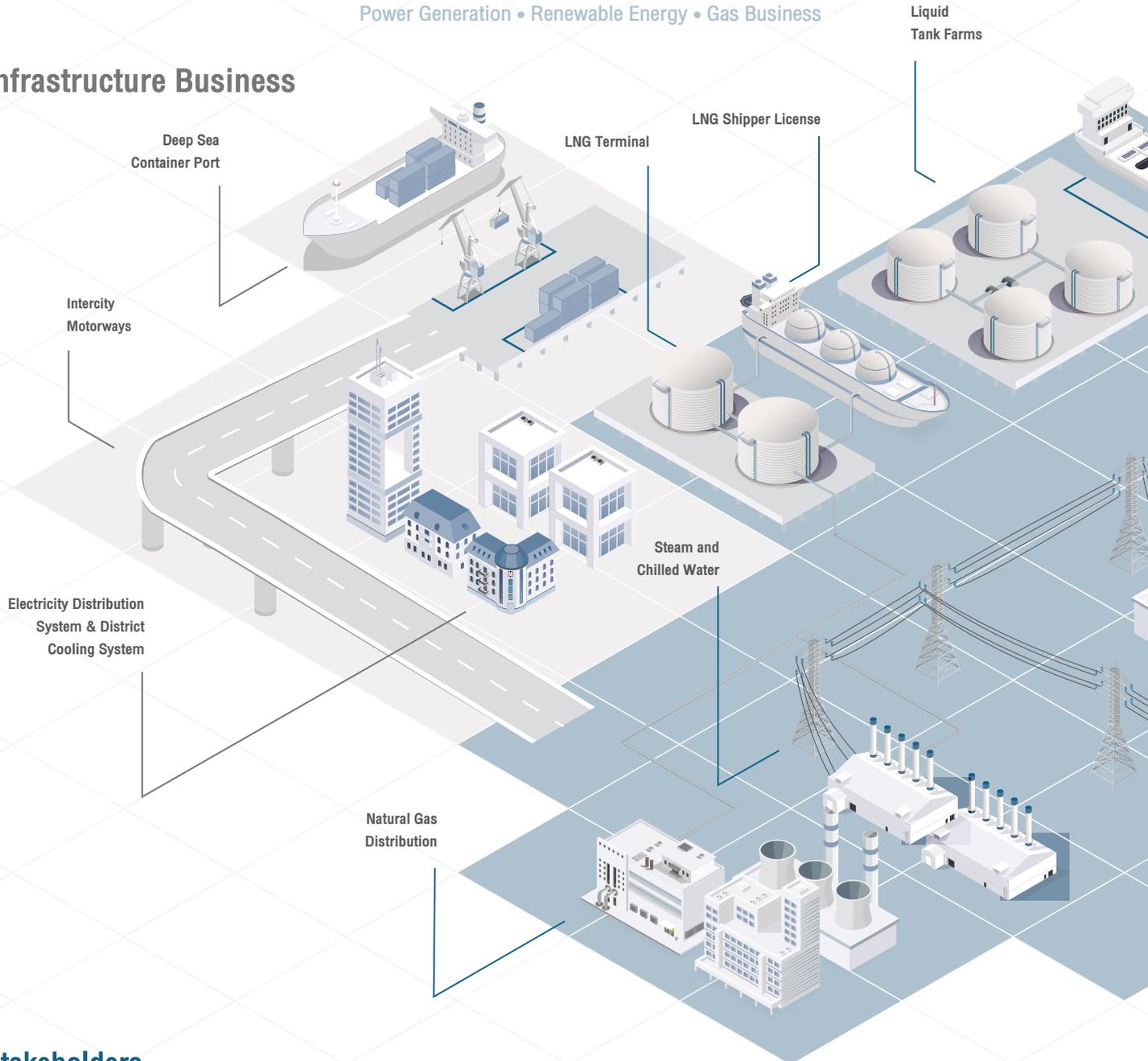
GULF'S BUSINESS VALUE CHAIN

GULF is a holding company that invests in a portfolio of core businesses which can be divided into 3 groups comprising 1) Energy Business, including gas-fired power generation and other related businesses, renewable energy and gas business 2) Infrastructure and Utilities Business and 3) Digital Business.

Energy Business

Power Generation • Renewable Energy • Gas Business

Infrastructure Business



Stakeholders

Upstream



Investors and shareholders



Business partners

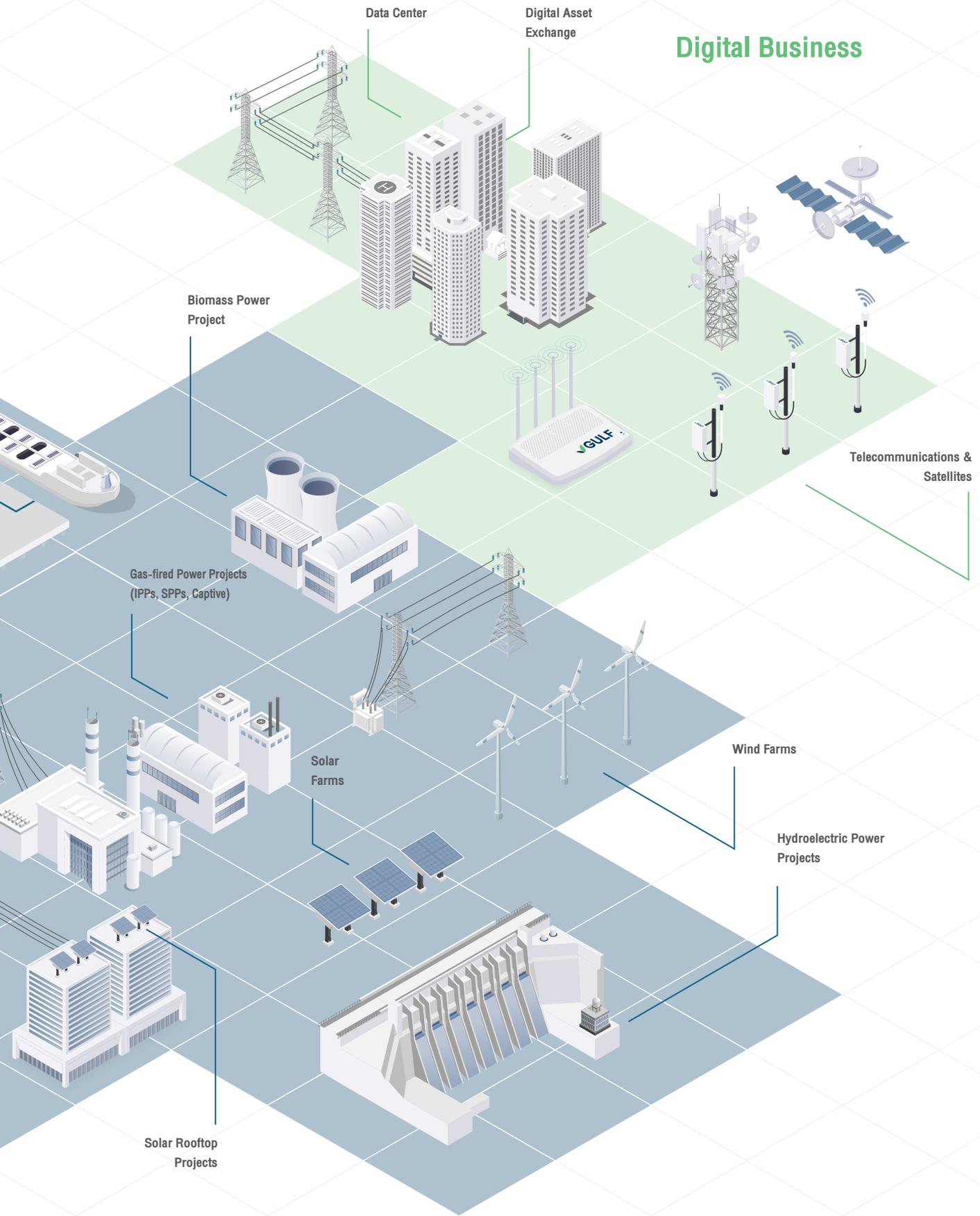


Governmental authorities and regulators



Suppliers and contractors

Digital Business



Operations



Employees



Local communities

Downstream



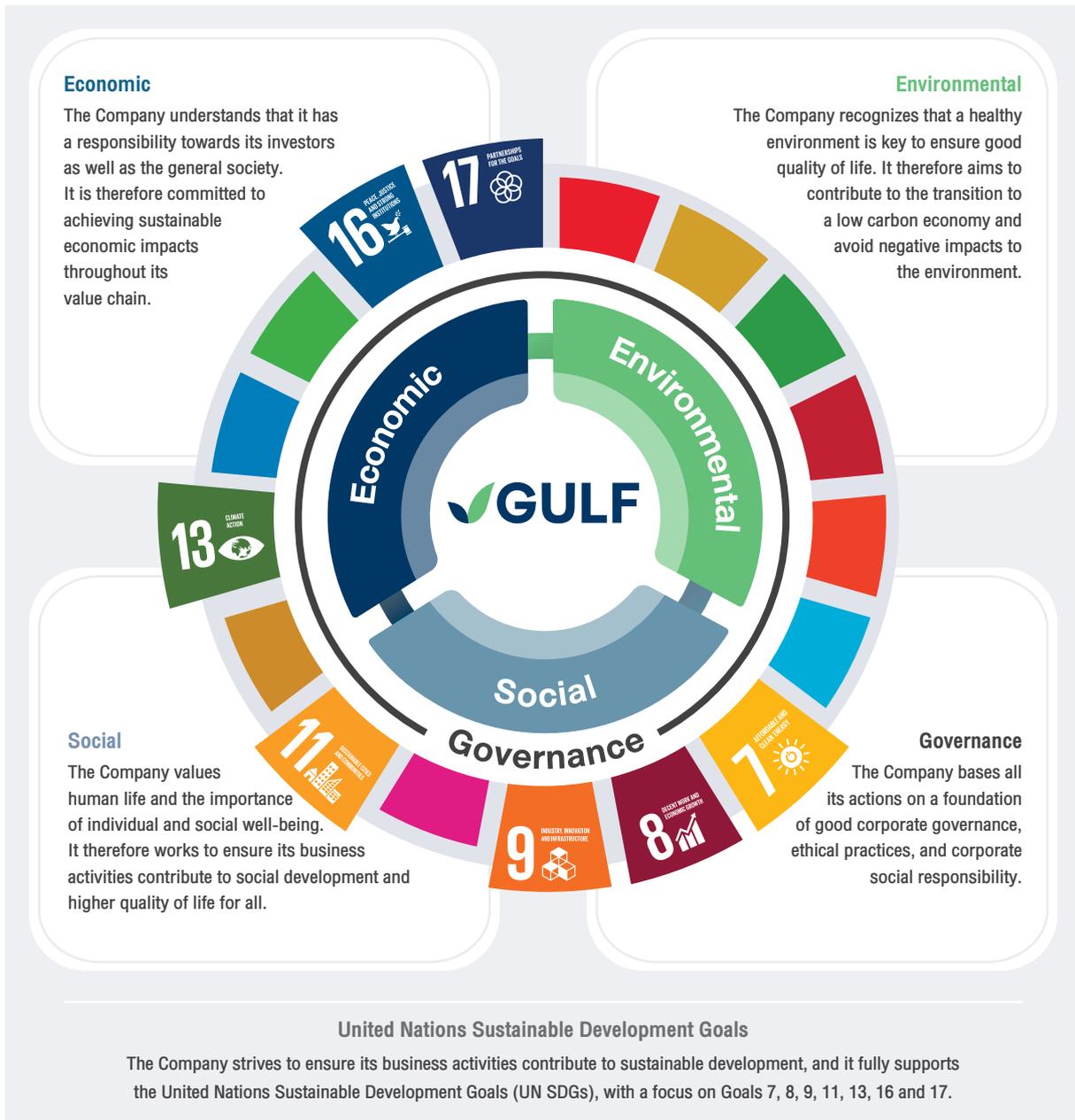
Customers

SUSTAINABILITY APPROACH

GULF is committed to conducting business in a responsible manner to create shared value for the benefit of all stakeholders, in line with the United Nations Sustainable Development Goals, the Principles of the United Nations Global Compact, the United Nations Guiding Principles on Business and Human Rights, and other relevant national and international standards. The Company has established a Sustainability Policy covering economic, environmental, social and governance dimensions to ensure it continues to create a positive impact in all spheres where it operates.

In 2022, the Company updated its Sustainability Framework, derived from its Sustainability Policy and input from internal and external sources, to better reflect its efforts to meet stakeholders' expectations and its commitment to achieving sustainable business operations and growth

Sustainability Framework



Sustainability Governance



STAKEHOLDER ENGAGEMENT

The Company places great importance on understanding the needs of its stakeholders and aims to act in best interest of all stakeholders. As such, the Company has established a 7-step stakeholder engagement process for its domestic projects, conducted on annual basis, to communicate with stakeholders, identify and prioritize stakeholder needs, design appropriate engagement plans, and monitor the effectiveness of those plans. The Company has identified 6 key groups of stakeholders: (i) investors, lenders and shareholders, (ii) employees, (iii) suppliers and contractors, (iv) local communities, (v) government agencies, authorities and regulators, and (vi) business partners and customers.

Stakeholder Engagement Process



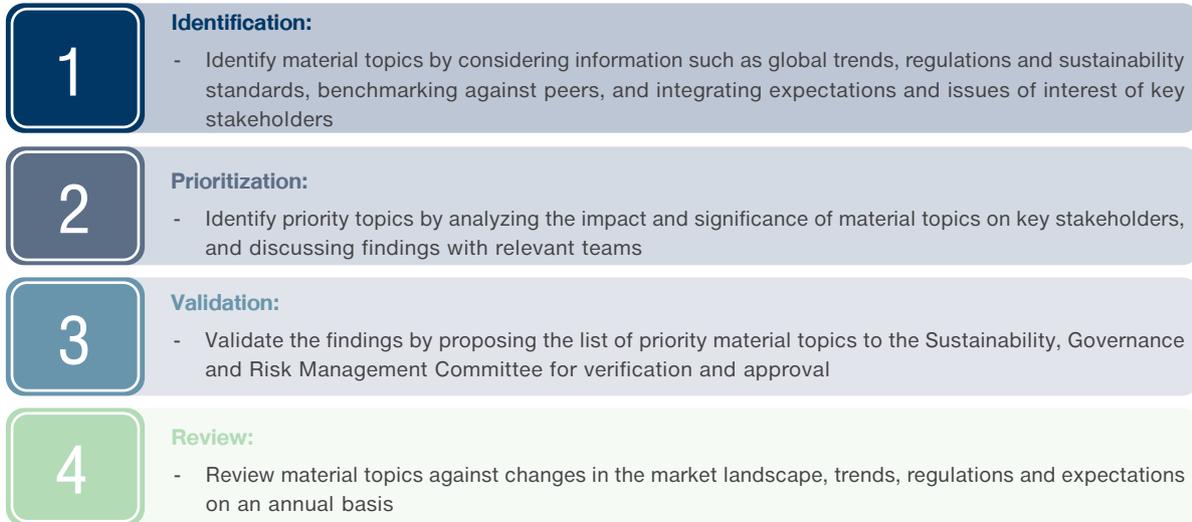
Expectations and issues of interest	Communication channels	Information about response measures
 Investors, lenders and shareholders		
<ul style="list-style-type: none"> - High and stable growth - Increased competitiveness - Corporate governance and transparency - Sustainable business growth 	<ul style="list-style-type: none"> - Investor Relations - Public disclosures such as annual reports, quarterly investor fact sheets and MD&A reports - Shareholder meetings (AGM / EGM) - Quarterly analyst meetings - Investor roadshows - Investor's questionnaires 	<ul style="list-style-type: none"> - Risk Management Section (56-1 One Report) - Corporate Governance and Anti-corruption Chapter - Sustainability Highlights Section (56-1 One Report) - Climate Management Chapter
 Employees		
<ul style="list-style-type: none"> - Mental and physical well-being - Occupational health and safety - Career development and job security 	<ul style="list-style-type: none"> - Bi-annual employee engagement survey - Management visits and visits from the human resources department - Employee engagement activities - Annual performance appraisals - Whistleblowing and complaint channels 	<ul style="list-style-type: none"> - Human Capital Management Chapter - Occupational Health and Safety Chapter - Corporate Governance and Anti-corruption Chapter
 Suppliers and contractors		
<ul style="list-style-type: none"> - Transparent and fair business operations - Clear policies and guidelines for suppliers/ contractors 	<ul style="list-style-type: none"> - Supplier meetings - Visits from procurement teams - Whistleblowing and complaint channels 	<ul style="list-style-type: none"> - Sustainable Supply Chain Management Chapter - Corporate Governance and Anti-corruption Chapter
 Local communities		
<ul style="list-style-type: none"> - Environmental and social impacts - Quality of life - Community development support 	<ul style="list-style-type: none"> - Environmental Impact Committee - Community surveys - Regular visits & participation in community activities by Company employees - Community Relations Officers at construction and operational site 	<ul style="list-style-type: none"> - Corporate Citizenship Chapter - Sustainability Highlights Section (56-1 One Report)
 Government agencies, authorities and regulators		
<ul style="list-style-type: none"> - Compliance with laws and regulations - Alignment with corporate governance and risk management principles - Local community support - Reliable, high quality services 	<ul style="list-style-type: none"> - Meetings and seminars with governmental authorities and regulators such as SEC, MNRE and SAO* - Reports and site visits required by laws and regulations - Environmental Impact Committee - Collaboration through compliance units/ Corporate Secretary department 	<ul style="list-style-type: none"> - Corporate Governance and Anti-corruption Chapter - Corporate Citizenship Chapter - Environmental Management Chapter - Innovation (website)
 Business partners and customers		
<ul style="list-style-type: none"> - Transparent and fair business operations - Sustainable business operations - Continuous collaboration - Reliable, high quality services 	<ul style="list-style-type: none"> - Meetings with business partners/ customers - Annual customer satisfaction surveys - Whistleblowing and complaint channels 	<ul style="list-style-type: none"> - Corporate Governance and Anti-corruption Chapter - Sustainability Highlights Section (56-1 One Report) - Customer Relationship Management (website) - Innovation (website)

* SEC = Securities and Exchange Commission
 MNRE = Ministry of Natural Resources and Environment
 SAO = Subdistrict Administrative Organization

MATERIALITY

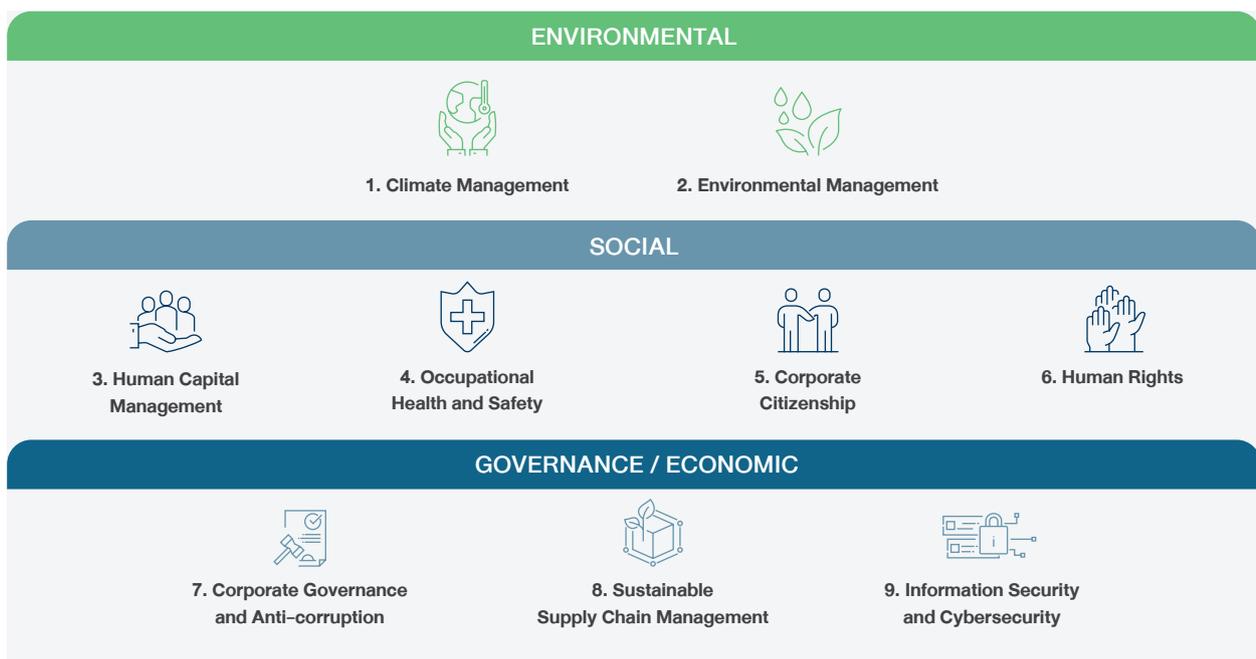
The Company conducts a material topic assessment every year, taking into account key global trends, changes in regulations, international and local sustainability standards and assessment criteria, as well as peer practices. The assessment process comprises four main steps as follows:

Materiality Assessment Process



In 2022, the Company identified nine significant material topics. Sustainable supply chain management has been identified as a new material issue due to the more complex nature of the Company's supply chain resulting from its business diversification and overseas expansion. The Company's water management has been included in the broader issue of environmental management.

2022 Material Topics



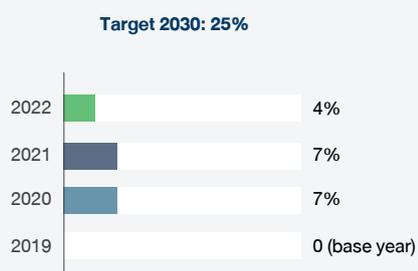
CLIMATE MANAGEMENT

Material Impacts

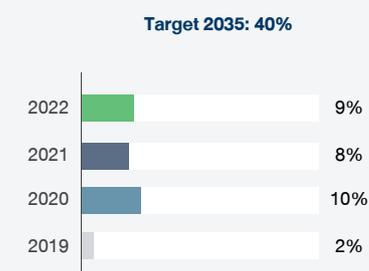
The Company recognizes that climate change has significant impacts for the electric utilities industry both in terms of physical risks, such as changes in water availability in various geographies, and transition risks, such as the development of carbon trading mechanisms. Undeniably, a key focus for the industry is the reduction of greenhouse gas emissions and the transition to low- or no-carbon energy sources as governments, investors and consumers begin to increase pressure on businesses to undertake more aggressive climate commitments. In this regard, the Company has adjusted its business strategies over the past few years to reflect a shift towards greater investments in renewable energy and other sustainable energy solutions. At the same time, the Company must also maintain its commitment to its investors and to its role in providing sufficient and reliable energy for the country. As such, it is essential for the Company to effectively manage climate risks and capitalize on opportunities created by the energy transition while balancing the needs of various stakeholders in relation to all three dimensions of sustainability – economic, environmental and social.

Target & Progress

Scope 1 greenhouse gas emissions intensity reduction



Renewable energy capacity as a proportion of total installed generating capacity



Note: Coverage of climate-related targets includes data from projects operated under the GJP group, an associate of the Company.

Management Approach

The Company's approach to climate management draws on the guidelines and recommendations of various national and international policies and frameworks including Thailand's national energy policies, the Greenhouse Gas Protocol, and the Task Force on Climate-related Financial Disclosures (TCFD). For ease of understanding, this chapter will be structured based on the four core elements of the TCFD recommendations for reporting.



Governance

Good governance forms the foundation for all of the Company's strategies and activities, including its management of climate-related issues such as the assessment and management of climate-related risks and opportunities. The Company has therefore established a governance structure which ensures oversight of climate management at the executive and the Board level. This oversight covers investment decisions as well as climate-related risk management, performance monitoring, and policy review with the aim of aligning the Company's climate and business aspirations and strategies. To ensure these aspirations translate into actions, the Company integrates climate-related key performance indicators (KPIs) into performance evaluations at the individual, department, project and corporate levels. At the corporate level, climate-related KPIs include increasing the proportion of renewable energy by installed capacity and meeting or exceeding operational efficiency targets for power projects (which contributes to a reduction in carbon intensity). Performance at the corporate level is reflected in the variable portion of executive remuneration, such as performance bonuses.

Board level

Meets monthly to:

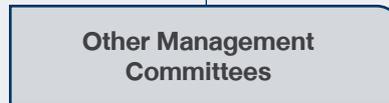
- Oversee investment decisions including major capital expenditures, acquisitions, and divestitures
- Provide recommendations on performance objectives such as renewable energy capacity and operational eco-efficiency
- Approve policies and corporate risk assessments (including sustainability and climate-related policies and risk assessments)
- Monitor and guide implementation of sustainability and climate-related strategies and operations through the Sustainability, Governance and Risk Management Committee*



Management level

The CEO chairs the Executive Committee which meets at least monthly to:

- Guide and approve climate strategy including setting climate objectives and reviewing, assessing and managing climate-related risks and opportunities
- Allocate resources for business activities including climate mitigation and climate adaptation
- Provide direction and oversight for business growth, project development, and operations directly or through other management committees which meet bimonthly



Operational level

The Sustainability and Risk Management Department** coordinates with all business units and departments on a regular basis to:

- Facilitate implementation of sustainability and climate-related policies, strategies and action plans, including incorporating climate issues into project planning and implementation
- Collect and analyze information from relevant functions to support decision-making at the management and Board level
- Assess corporate risks and opportunities, including sustainability and climate-related risks and opportunities, and monitor the implementation of climate-related risk management plans
- Monitor climate-related trends and development, market demands and market opportunities
- Develop sustainability and climate-related performance reports including updates to management and the SGRC / BOD



□ considers specific issues as covered by the committee's scope of responsibilities

* meets quarterly

** the Sustainability and Risk Management Department reports directly to the Chief Financial Officer who sits on the Executive Committee, the Sustainability, Governance and Risk Management Committee, and the Board of Directors

Strategy

The Company's climate strategy is integrated in its business strategies, as the Company operates mainly in the energy and infrastructure sphere which has been a focal point of global climate efforts. The Company recognizes that the worldwide shift towards a low-carbon society will change the energy industry in the long term, with fewer opportunities for growth in gas-fired generation and more opportunities for growth in renewable energy. At the same time, stakeholders are also placing greater emphasis on corporate responsibility related to climate management. As such, the portion of the Company's business strategy which relates to the energy transition includes a climate strategy that continues to adhere to its No Coal Policy and focuses on climate mitigation and climate adaptation.



Climate Mitigation

Focused on increasing investments in renewable energy and improving operational efficiency

Key activities in 2022:

- Investment in a 9.5 MW municipal waste-to-energy project
- Investment in the LCI Fund which targets ESG-aligned investments
- Establishment of 4 joint ventures under the Company's subsidiary, GULF1, to engage in the production and sale of electricity from solar rooftops in Thailand
- Execution of a Joint Venture Agreement with GUNKUL to develop a renewable energy business in Thailand
- Execution of Tariff Memorandums of Understanding for 2 hydroelectric power projects
- Continuation of IU load switching to improve operational efficiency



Climate Adaptation

Focused on maintaining resilience against physical climate risks and fostering awareness of climate issues

Key activities maintained in 2022:

- Shift to reclaimed water sources
- Increase water cycling within power projects
- Include raw water storage ponds to cover 45-60 days of operations
- Include flood prevention measures in power project design (e.g. flood walls, raised platforms)
- Purchase flood insurance coverage
- Conduct sustainability and climate-related training and knowledge-sharing within the Company
- Collaborate with regulators, state agencies, suppliers and local communities to forecast water demand and availability
- Implement a supplier ESG assessment which covers climate management as part of the supplier selection and evaluation process

Risk Management

The Company has established an enterprise risk management (ERM) approach based on the framework set out by COSO (The Committee of the Sponsoring Organizations of the Treadway Commission) which focuses on developing a culture within which strategy-setting and performance can be integrated to manage risk. This approach allows the Company to consider climate risks as part of its normal risk assessment process which covers a variety of risk types and/or events, thus providing a more holistic view of the potential impacts to the Company and encouraging a deeper understanding of the relationship between climate risks and other risks. At the same time, a separate assessment is conducted using climate scenario analysis to focus specifically on climate risks as a unique and discrete issue. The results of the climate risk assessment are used to inform the corporate risk assessment under the Company's ERM approach. (Please refer to the Risk Management chapter in the Annual Report (56-1 One Report) for more details about the Company's risk management process.)

As the Company's core business mainly involves investments in large-scale long-term projects, risk management at the project and corporate level must, by nature, take into account medium- and long-term risks. For example, the planning and development phase (including construction) of a typical power project may take up to ten years, and the project will be expected to operate for another 20 – 25 years at minimum. As such, scenario analysis (for climate and other factors) and other forecasting techniques are already integrated in normal strategic planning and operations. Risk management in the short term, on the other hand, focuses more on the day-to-day operations of the Company and its projects. In assessing climate risks, the Company considers both physical and transition risks that may affect the Company in the short (1-2 years), medium (3-5 years) and long term (6 or more years). In any case, the Company recognizes that with appropriate management, many risks can be turned into opportunities for growth and improvement.

As with other risks assessed by the Company, the impact* and likelihood of the risks are assessed to identify material risks and determine appropriate controls and mitigation plans. A number of data sources are used to support the risk assessment including Company policies and direction, national and international policies and regulations, local and global trends, peer benchmarking, and input from experts. Climate scenario analysis is also used for the assessment of long-term risks**. The key scenarios used to assess physical risks are the IPCC RCP 8.5 (worst-case scenario with a global temperature increase of over 4°C by 2100) and the RCP 4.5 (moderate scenario with a global temperature increase around 2°C by 2100), while the key scenarios used to assess transition risks are the IEA Stated Policies (STEPS) scenario (reflecting current policies) and the IEA Sustainable Development (SDS) scenario (which reflects a "well below 2°C" model). The Company follows the TCFD recommendations on the types of climate risks to consider.

* Impact assessment takes into consideration both qualitative and quantitative indicators for financial, reputational, operational, environmental, and social impacts.

** In 2022, the scenario analysis covered operating assets in Thailand.

Risks				
	Type	Description	Potential financial impact	Management & mitigation
Physical	Acute (RCP 8.5)	Business interruption and/or damage to assets due to flooding. A medium level of risk is identified in the medium term.	Reduced revenue; increased operating costs	<ul style="list-style-type: none"> - Incorporation of flood prevention measures in project design, e.g. flood walls, raised platforms for major machinery - Purchase of flood insurance covering estimated maximum loss (EML) based on 100-year flood data
	Chronic (RCP 4.5; RCP 8.5)	Business interruption due to drought and water stress. A medium level of risk is identified in the long term.	Increased operating costs	<ul style="list-style-type: none"> - Raw water storage ponds (covering 45-60 days of operations) - Increased water cycling in cooling towers - Switch to reclaimed water

Risks				
	Type	Description	Potential financial impact	Management & mitigation
Transition	Policy / Legal (IEA SDS)	<p>Increased costs due to more numerous and more stringent climate-related investment / lending criteria.</p> <p>A medium level of risk is identified in the medium term.</p>	Increased capital expenditure	<ul style="list-style-type: none"> - Increase investment in renewable energy - Study climate mitigation technology, e.g. carbon capture and storage, turbine modification for hydrogen fuel mix
	Technology (IEA SDS)	<p>Lower dispatch of electricity from gas-fired power projects due to more widespread installation of renewable energy.</p> <p>A medium level of risk is identified in the long term.</p>	Reduced revenue	<ul style="list-style-type: none"> - Utilize state-of-the-art technology in all projects to maintain the highest levels of efficiency to ensure dispatch to support peak demand
	Market (IEA SDS; IEA STEPS)	<p>Fewer opportunities for growth for large-scale gas-fired power projects due to shift towards renewable energy and rise in “prosumers”</p> <p>A high level of risk is identified in the short to medium term.</p>	Reduced access to capital (for new gas-fired power generation)	<ul style="list-style-type: none"> - Increase investment in renewable energy - Development of small-scale and retail energy business, e.g. solar rooftop - Partner with energy and industrial companies to build new customer base
	Reputation (IEA STEPS)	<p>Increased requirements to disclose climate-related performance and comply with climate-related expectations from stakeholders.</p> <p>A low level of risk is identified in the short to medium term.</p>	Increased capital expenditure and operating costs	<ul style="list-style-type: none"> - Increase investment in renewable energy - Increase disclosure of sustainability and climate-related information - Join major organizations/ alliances, e.g. UNGC, TCFD, CAC

Opportunities			
Type	Description	Potential financial impact	Management & mitigation
Resource efficiency (IEA STEPS)	Reduced greenhouse gas emissions, fuel consumption, and energy consumption due to improvements in production efficiency. Opportunity created in the short term.	Reduced operating costs	- Implementation of IU load switching and other efficiency improvement projects
Energy source (IEA SDS; IEA STEPS; RCP 4.5; RCP 8.5)	Growth in renewable energy business; participation in carbon markets. Opportunity created in the short to medium term.	Increased revenue; increased access to capital	- Increase investment in renewable energy - Seek green financing for eligible projects - Register for carbon credits and/or RECs
Products & services (IEA SDS; RCP 4.5)	Growth in retail energy business (decentralized & distributed generation); increased demand for lower carbon energy products. Opportunity created in the short to medium term.	Increased revenue	- Expansion of solar rooftop business - Synergy with partners in new businesses, e.g. clean energy for data center business
Markets (IEA SDS; IEA STEPS)	Access to new markets (overseas); access to new sources of funding Opportunity created in the short to medium term.	Increased revenue; increased diversification of financial assets	- Increase investment in renewable energy - Seek green financing, e.g. issuance of green bonds
Resilience (IEA SDS; RCP 4.5)	Increased adoption of energy-efficiency measures, e.g. LEED-certified buildings; increased adoption of new energy technologies, e.g. electric vehicles, battery storage, smart grids & meters Opportunity created in the medium to long term.	Reduced operating costs	- Partnerships and MOUs with state and private companies as well as universities to study new technologies with potential for incorporation and/or implementation in the Company's current and future projects

Metrics and Targets

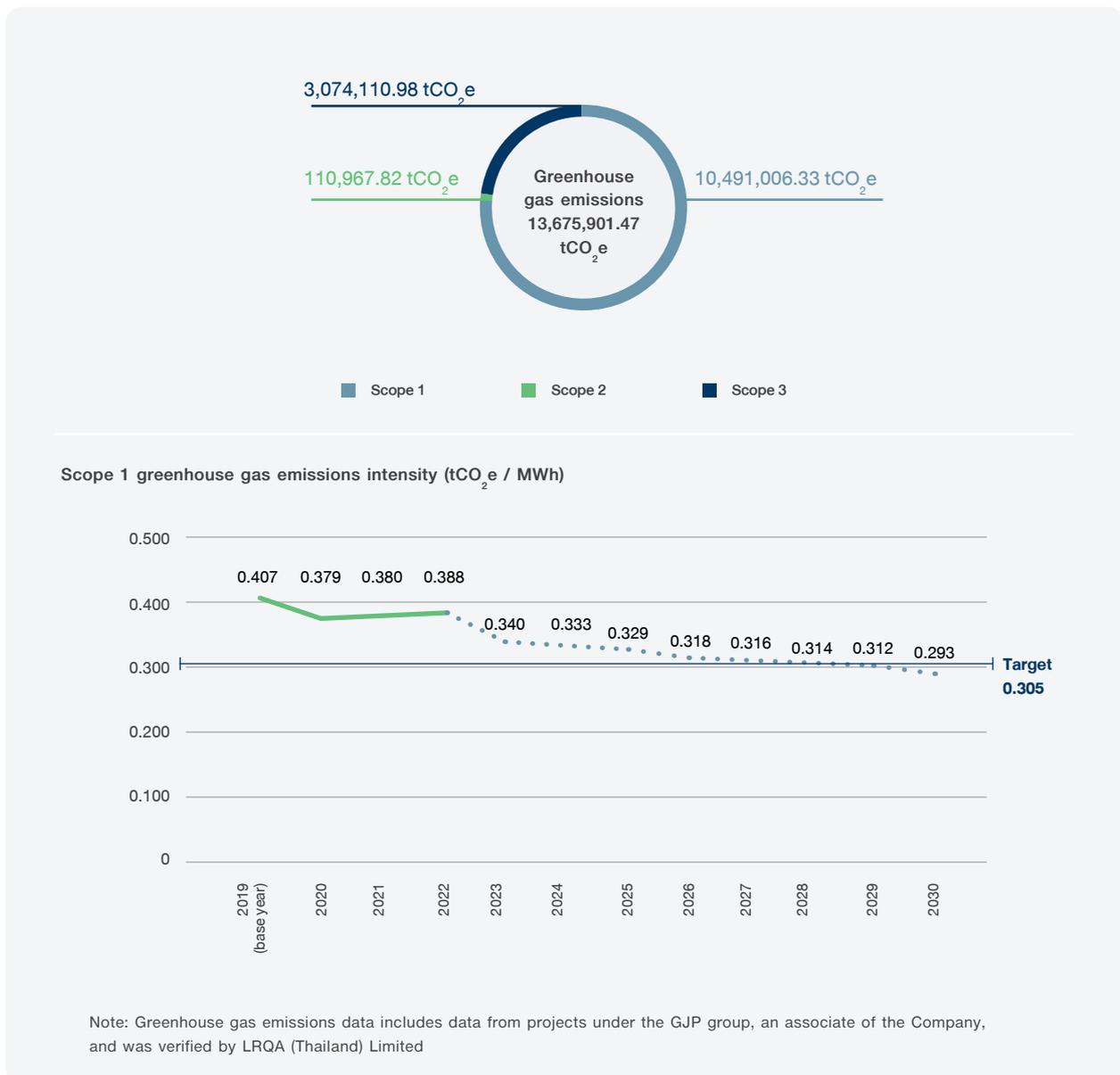
The Company is in the process of adjusting its business strategies to better align with global aspirations to achieve carbon neutrality and net zero greenhouse gas emissions in the long term. In this early stage of its journey, the Company has set short- to medium-term targets that reflect its efforts to support climate mitigation.

 By 2030: Reduce Scope 1 greenhouse gas emissions intensity by 25% compared to baseline intensity in 2019

 By 2035: Increase the proportion of renewable energy to 40% of total installed generating capacity

Performance

The Company conducts a carbon footprint for organization assessment for all power projects in Thailand which have been in operation for at least one year. Although total absolute greenhouse gas emissions and Scope 1 intensity increased in 2022 due to new gas-fired power projects achieving commercial operation, the Company expects to meet its climate targets as it continues to increase investment in renewable energy, newer turbine technology, and efficiency improvement programs.



Additional climate-related metrics

Energy consumption

The Company places great importance on maintaining high levels of efficiency in operations as this contributes to lower fuel and energy consumption which translates into greater cost savings as well as lower waste and emissions. The Company employs a three-pronged approach to achieve its efficiency objectives:

- Technology: The Company uses highly-efficient state-of-the-art technology along with digital tools to optimize operations
- Operations and maintenance planning: The Company follows a proactive preventive maintenance regime to prevent unnecessary and unplanned shutdowns which would reduce efficiency
- Innovation: The Company has a dedicated efficiency team responsible for finding innovative solutions to improve operational efficiency. The Company also collaborates with partners, suppliers, universities, and other external stakeholders to study new innovations.

In 2022, the Company's total energy consumption was 108,349,671.14 GJ (of which 97.7% was from fuel consumption) and its energy intensity was 4.0 GJ/MWh.

Capital expenditure

To support its target to increase the proportion of renewable capacity to 40% of total installed generating capacity by 2035, the Company has developed a 5-year investment plan with expected capital expenditure of 100 – 120 billion THB of which approximately 66% will be allocated to investment in renewable energy.

Water consumption

The Company conducts an annual water footprint assessment for all its power projects in Thailand which have been in operation for at least one year. In 2022, the Company's total water consumption was 15,427,269.1 m³ and its water intensity was 0.24 m³/GJ. Additional details can be found in the Environmental Management chapter on page 22.

Project highlights in 2022



IU load switching

Objective: To optimize generating efficiency of closely-located power projects and reduce greenhouse gas emissions

For small power producer (SPP) power projects which supply electricity to industrial users (IUs) and are located in close proximity to each other, the Company jointly monitors the operational data and load (demand) for both / all projects. If multiple units are operating at partial capacity (which is inefficient), the Company may switch the load from one unit to another in order to optimize the load in one unit and achieve higher efficiency.

In 2022, IU load switching was applied at 14 power projects and resulted in over 660 million THB in cost savings (due to reduced fuel consumption) and over 71,000 tCO₂e of avoided greenhouse gas emissions.*

* Includes data from power projects under the GJP group, an associate of the Company.

ENVIRONMENTAL MANAGEMENT

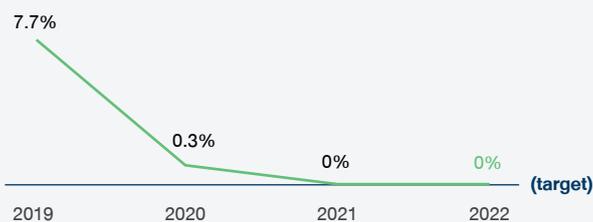
Material Impacts

The Company recognizes that, as with virtually all human activity, its business activities are reliant on natural resources and it is therefore essential to take care of the environment in order to ensure the company can operate and grow sustainably. For the Company, environmental management must focus both on input and output. In terms of consumption, as the Company's business relies heavily on finite natural resources such as land, water and natural gas, it is important to maintain high operating efficiency in order not to waste resources and also to ensure these essential resources are shared fairly with other stakeholders. At the other end of the process, the Company also seeks to manage any waste or emissions that are released from its facilities in order to minimize any potential negative impacts on the local ecosystem or communities in the area. These aspirations are also extended to the Company's partners, suppliers and contractors through its Supplier Code of Conduct which emphasizes environmental responsibility in operations. Thus, the Company is able to create shared value through its environmental management approach by increasing operational efficiency, reducing resource consumption, and reducing waste and emissions.

Target & Progress

Zero operational waste to landfill

2022 target: 0 tons



Management Approach

The Company is committed to operating in an environmentally-responsible manner, complying with relevant environmental laws and regulations at minimum, as well as aligning with additional national and international standards. To this end, the Company has developed an Environmental and Social Management Policy which is applied across the organization. In addition, the Company has established an Environmental and Social Management System (ESMS) based on the Asian Development Bank (ADB) Safeguard Policy Statement. The ESMS outlines an environmental management process which is implemented throughout the life cycle of the Company's projects, from project selection, conception and design, to development and construction, and throughout operations until project decommissioning. The ESMS includes specific elements for feasibility studies and implementation, mergers and acquisitions, and operations, and applies to the aforementioned as well as to goods and services provided to the Company. The ESMS takes into account both potential environmental impacts as well as potential social impacts related to such environmental impacts, such as health and safety, resource availability, and the livelihood of local communities. The Company conducts regular training sessions on various aspects of environmental issues and environmental management in order to raise employees' awareness and support the creation of a culture of responsibility within the organization.

Environmental Management Process



* Environmental impact assessments may refer to the full-scale regulatory Environmental Impact Assessment (EIA) or other types of environmental assessments.

** Such as those stipulated in the EIA or in any contractual agreements with lenders, investors, partners, regulators or customers.

Focus Areas

During operations, the Company focuses especially on managing its impacts in three key areas: on land, in the water, and in the air.

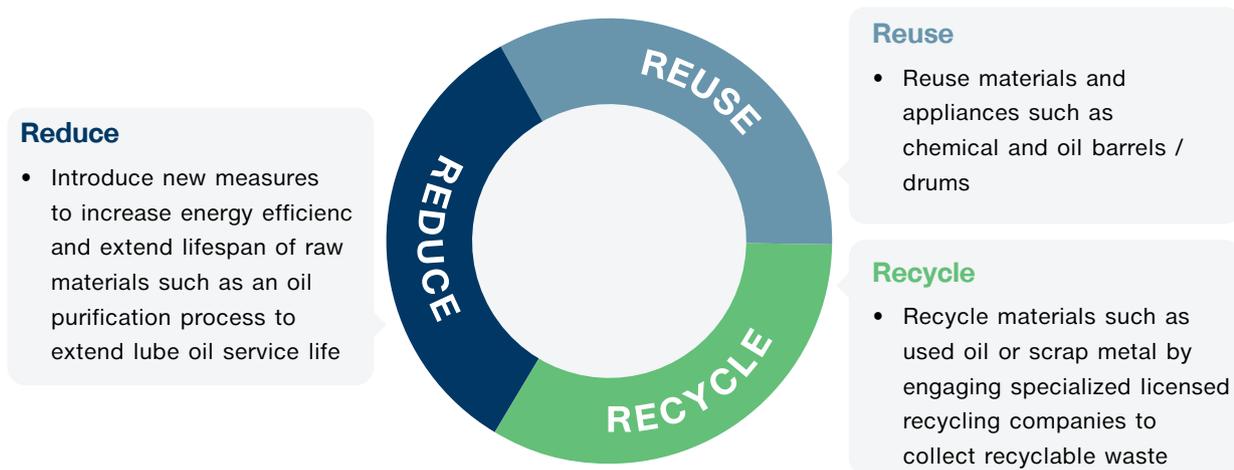
On land:



Waste Management

As the Company’s core business is electricity generation which doesn’t require a lot of raw materials and therefore doesn’t generate a lot of waste, the majority of the waste produced comprises sediment which is filtered out of the water used in its power projects, along with some oils and chemicals left over from various operations and maintenance processes. In any case, the Company recognizes that it is important to manage its waste effectively in order to minimize any negative impacts to the environment or local community. As such, the Company set a Zero Operational Waste to Landfill target which has been achieved and maintained since 2020. To achieve its target, the Company applies the 3R principle for waste management – reduce, reuse, recycle – and works with external partners such as universities or waste management experts to seek different ways to manage or dispose of its waste.

Waste Management Approach



In the water:



Water Management

Water is a fundamental natural resource that is vital for life and is also an essential component of electricity generation. As such, it is important to manage both the quality and quantity of water available to the Company and other stakeholders using this shared resource. The Company has implemented the following approach to enhance its water management performance and ensure water sharing with local communities. In 2022, the Company’s total water consumption was 15,427,269.1 m³ and its water intensity was 0.24 m³/GJ.

Water Management Approach

Water Risk Assessment

An assessment is conducted every year to identify water stress, water scarcity (drought) and flood risks for each operational site, using data based on the WRI Aqueduct Water Risk Atlas and UN FAO Aquastat tools. The assessment considers both short-term (annual) and long-term (project lifespan) risks. Mitigation plans are developed and updated for each location accordingly.



Water Stress



Drought



Flood

Water Management Planning

The Company develops water management plans in conjunction with local communities, regulators and water suppliers, taking into consideration the needs of all stakeholders and availability of water resources throughout the year. The plans are reviewed at least annually to incorporate changes in water availability which may impact operations or communities’ water usage.



Raw water storage ponds for 45-60 days’ of operations



Scheduled withdrawal periods



Environmental Impact Committee

Water Consumption Reduction

The majority of the water used by the Company is used in the cooling towers of its power projects. Raw water is purchased from industrial estates (for projects located on industrial estates) or pumped directly from natural waterways (for projects outside of industrial estates). The Company aims to reduce its water consumption by increasing cooling cycles and seeking alternative water sources.



Increase number of cooling cycles



Use premium clarified water produced from reclaimed water

Water Treatment System

The Company has in place a water quality monitoring system to ensure that the quality of the water discharged from its projects are within safe environmental limits. Quality indicators monitored include acidity (pH), biochemical oxygen demand (BOD), suspended solids (SS), and total dissolved solids (TDS). The Company adheres to water quality standards set by industrial estate and Royal Irrigation Department (RID) which are stricter than legal and regulatory limits.



Regular water quality testing



Water quality better than regulatory limits

* Total water consumption = (total withdrawal + water purchased) – total discharged

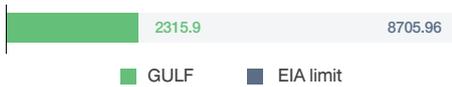
In the air:



Emissions Management

The Company recognizes that good air quality contributes not only to the physical and mental health of its employees and other people in the surrounding area, but also to more robust ecosystems. As such, the Company maintains a stringent emissions management system in its operations, adhering to air quality standards stricter than the legal and regulatory limits for air emissions. To this end, the Company uses best-in-class technology along with a Continuous Emissions Monitoring System (CEMS) to ensure high operational efficiency and pollutant reduction. The Company also conducts regular preventive maintenance in order to ensure all equipment is working at optimal levels. The air quality indicators monitored include nitrous oxides (NOx), sulfur oxides (SOx), dust or particulate matter (PM) which are monitored directly at the point of emission as well as at various locations in the area surrounding the Company's power projects.

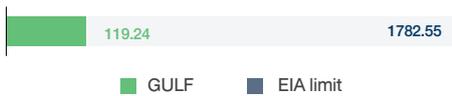
NOx (tons):



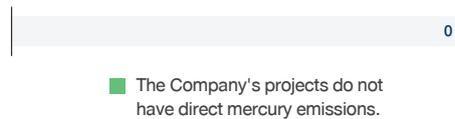
PM (dust) (tons):



SOx (tons):



Mercury (tons):



Project Highlights in 2022

R Raw water consumption reduction

Objective: To reduce raw water consumption by switching to using premium clarified water produced from reclaimed water

Reclaimed water refers to wastewater from factories located on industrial estates which is treated using reverse osmosis to produce premium clarified water. This reduces the amount of raw water pumped directly from rivers and canals. As the premium clarified water is of better quality than raw water, the Company is able to cycle it through its cooling towers more times than other water, thus reducing overall water consumption even more.

The Company has switched to premium clarified water at 14 power projects, resulting in cost-savings of over 8 million THB in 2022. The Company will continue to expand this initiative to additional power projects where premium clarified water is available.



HUMAN CAPITAL MANAGEMENT

Snapshot of GULF



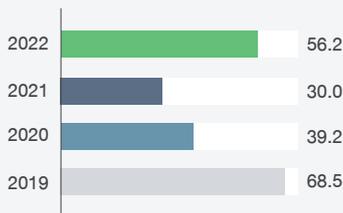
Material Impacts

The Company recognizes that human capital is a critical factor in achieving its business strategies as employees are the driving force behind all of the Company’s activities and operations. Developing its human resources does not only mean attracting talent to fill new positions, but also includes enhancing employees’ capabilities through reskilling and upskilling, as well as maintaining high retention rates and building succession plans to ensure continuity and long-term success. To this end, the Company has implemented a human capital management system that covers all stages of the employment cycle, from recruitment through to retirement, while upholding human and labor rights, and with emphasis on supporting all aspects of employee well-being, such as physical and mental health, safety, working conditions, compensation and benefits, and development opportunities, among others.

Target & Progress

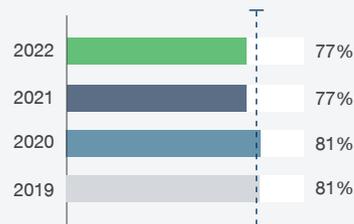
Average training hours per Full-Time Employee (FTE)

2025 Target: 50 hours



Employee engagement

2022 Target: 80%



Management Approach

The Company has established a human capital management strategy in line with the Company’s core values. To support its strategy, the Company has established a number of policies, founded on the principles of human rights and labor rights as outlined in international standards such as the United Nations Guiding Principles on Business and Human Rights, the Universal Declaration of Human Rights, and the Conventions of the International Labour Organization. The Company’s policies which address key issues related to people include the Director Nomination and Remuneration, Diversity, Human Rights, and Non-discrimination and Harassment Policies, which all emphasize equal opportunities, non-discrimination, and diversity at all levels and in all areas. The Company adheres to these commitments through all stages of its human resource management process – from recruitment and hiring, throughout their employment, until they leave the Company (through retirement, termination, resignation, or otherwise) – ensuring that all potential, current and former employees are treated fairly and equally, regardless of their sex, gender, age, race, ethnicity, religion, nationality, or any other non-merit-based attributes.

Human Capital Management Strategy



Core Values

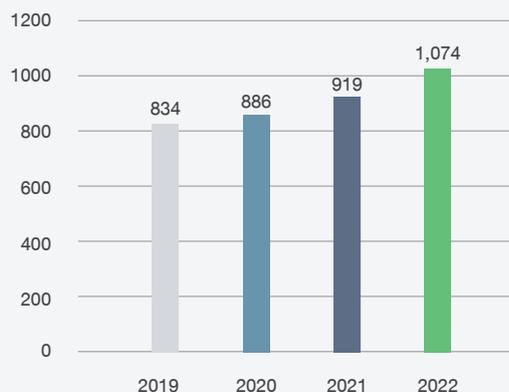
G	Goal-oriented – Be motivated and courageous to overcome limitations
U	Unity – Be devoted to a common goal and work as one team for mutual success
L	Learning – Love learning and be curious to initiate and explore new things
F	Flexible – Be adaptable and agile to all challenges

People

The first step of the Company's human capital management strategy is to lay a strong foundation by recruiting high-quality candidates and optimizing manpower allocation, with an aim to find the best fit between employees and job responsibilities. As such, the Company utilizes a proactive recruitment strategy which includes looking internally and externally to find qualified, high-potential individuals to join the Company's various and ever-expanding departments and functions, business units, management, and even Board. At the same time, especially when exploring new businesses or projects, the Company also seeks to develop strong partnerships with other companies who have the expertise and experience that can help guide the Company towards success. In this way, the Company can ensure that it builds a quality workforce and leverages on its human resources by matching the right people to the right job.

Throughout their employment, the Company also provides opportunities for employees of all levels to step out of their comfort zones and challenge themselves to achieve new things. For example, employees may be assigned to support a project outside of their normal functional responsibilities, or be given a chance rotate to other departments or functions to expand their experience, or be invited to participate in a company activity such as talent shows or sports competitions to showcase non-work related abilities. By creating a supportive environment, the Company can develop a more innovative and motivated mindset among its employees and management, which helps drive the whole organization towards achieving its goals.

Number of Employees



Engagement

The Company recognizes that it is not enough to simply attract highly capable employees to the organization; it is just as important to retain valuable employees and create an appropriate working environment where employees will be able and motivated to fully utilize those capabilities. The Company has therefore implemented a number of approaches, informed by a biannual employee engagement and satisfaction survey, to respond to employees' needs and enhance employee engagement.

As part of its engagement strategy, the Company's Human Resources department has revamped its approach to focus more on direct and personal engagement with each business unit and department within the organization in order to develop a deeper understanding of the unique requirements of each function and therefore better meet their needs, including finding the most appropriate people to join the team, designing the right learning programs to build the required skills and knowledge, and supporting career growth and succession planning within the function and beyond. At the same time, the Company also places great importance on taking care of the individual needs of employees to help them feel secure in their role in the Company. To this end, the Company has implemented an engagement process which begins from the first day of employment where new employees are assigned a buddy who will accompany them through a four-month onboarding program that includes formal knowledge-building sessions – covering various aspects of the Company's business and basic industry knowledge as well as general policies and foundational knowledge such as the Code of Conduct, appropriate use of social media, and how to use various programs/ systems – as well as informal relationship-building sessions such as coffee with buddy, lunch with management, and a visit to one of the Company's power projects with other new employees.

One major focus of the Company's engagement efforts is the creation of good relationships throughout the organization, within and between every area and level of work, be it between C-suite executives and new graduates starting their first job, between the head office and project sites, or between the various business units, departments and functions. To achieve this, the Company invests in a variety of intra-organizational activities to bring people together and support team-building, unity and mutual understanding. These activities include knowledge-sharing sessions, project site visits, casual lunches/ dinners, sports clubs and competitions, and company-wide events such as merit-making ceremonies, Thai, Chinese and international new year celebrations, and holiday-themed parties.



Learning

As the world continues to advance rapidly and the Company's business continues to grow and evolve, it is essential for all employees to constantly seek new knowledge and enhance their skills. In addition, the Company as a whole must be able to consolidate this body of knowledge and utilize it effectively to support its business strategies. Thus, the Company's approach to learning focuses on developing individual knowledge and skills as well as cross-functional and generational learning in order to help new employees integrate into the organization, maintain the Company's competitiveness in an ever-changing world, and support continuity of success in the long term.

Foundational knowledge

The Company has a program of mandatory courses which employees must complete annually, comprising e-learning courses on key policy issues such as the Code of Conduct, Anti-bribery and Corruption, Cybersecurity, and Business Continuity Management which are required of all employees and management, as well as in-class and online courses on specific topics which are assigned based on employees' responsibilities, covering themes such as legal and compliance issues, health and safety, and technical and operational knowledge, including environmental regulations and management, emergency responses, and power plant operations.

Managerial and leadership skills

Employees who demonstrate high performance and potential are considered for career advancement to managerial and leadership positions. As these positions require additional responsibilities aside from technical and operational knowledge, the Company has designed a program to help develop key skills such as problem-solving and decision-making, coaching, financial management, negotiation, and communication. The managerial and leadership program also includes opportunities for employees to work more closely with senior management and receive on-the-job training and mentoring for skills to support project management, people management, analysis and evaluation, and strategy and planning.

Supplementary courses

The Company also offers a variety of non-compulsory courses which employees can sign up for throughout the year. The courses cover a wide range of topics, from industry-specific knowledge such as how solar power works, to general work-related knowledge such as finance for non-finance staff, to personal well-being knowledge such as retirement planning or how to prevent office syndrome. The Company also conducts regular meet-the-management type events to encourage sharing knowledge and experience across different generations of employees. In addition, the Company has a budget for all employees to subsidize external learning opportunities such as workshops, seminars and conferences.



Rewards

The Company seeks to enhance employee well-being as well as encourage good performance. It does so through the implementation of its rewards system which comprises standard compensation and benefits, as well as performance-linked rewards (such as promotions and bonuses).

Compensation and benefits

The Company is committed to upholding human rights and labor rights in the management of employee compensation and benefits. The Company determines the starting compensation for all employees based on an equal pay for equal work principle, without discrimination based on age, sex, gender or other non-merit-based attributes. As such, the total compensation packages provided to male and female employees at all levels (non-management, management, and executive) are close to equal (within 5% difference at the higher levels, and within 10% difference at the non-management levels due to the wider range of positions). To ensure the compensation and benefits offered to employees is fair and competitive, the Company conducts an annual review and benchmarking study, taking into consideration economic conditions and business competition as well as benchmarking against peers and the general market. For 2022, the Company's compensation and benefits were found to be on par with peers in the utilities industry and higher than the general market in Thailand.

In addition to financial compensation, the Company also provides a number of benefits to employees, including financial and non-financial support, to promote mental and physical well-being through a system that provides more tailored and flexible options to better respond to employees' individual needs.

In addition to paid leave afforded by local law, such as annual leave, sick leave, maternity leave, and religious leave, the Company also provides other financial and non-financial benefits as follows.

Life and healthcare	Financial support	Other non-financial support
- Health insurance: full coverage for employees, 50% subsidized coverage for employees' parents, spouses and children	- Childbirth	- Lunch**
- Life insurance & accident insurance	- Death of family member (parents, spouse, or children)	- Sports clubs & activities (including teaching fees and facility rental fees)
- Age-based annual health checkup program at the country's leading hospital	- Company loan	- Parking fees
- Flexible benefits to cover additional care such as vision, dental, vaccination, and physical therapy	- 100% matching* for Provident Fund	- Special deals with banks or other companies, such as special interest rates for home loans and discounts for mobile phone and internet packages

* up to 10% of salary, depending on years of service

** for head office

Performance management

The Company seeks to encourage and recognize hard work and dedication by linking certain rewards, such as raises, promotions and annual bonuses, to performance. As such, the Company has implemented a performance management system that includes 360-degree feedback and comparative ranking which ensures fair and non-discriminatory evaluation of employees, with regular communication between the employee and their supervisor (at least twice a year) to align expectations between the individual, department/ unit, and corporate levels. Employees are evaluated based on key performance indicators (KPIs) pre-agreed with their supervisor and department head, as well as on key job competencies covering core, managerial and functional competencies. The results and proposed rewards are reviewed by a committee comprising senior management and executives from multiple departments.

Processes & Tools

The Company strives to regularly improve and enhance its human capital management by using the most appropriate processes and tools to support its efforts. This includes, for example, utilizing a digital platform for benefits management, including submitting benefits claims and requesting or approving leave online, making it easier for employees and supervisors to use and ensuring all claims and requests are well-documented. The Company also utilizes these digital capabilities for people analytics to support greater insight regarding employee performance, skills gaps, engagement, and retention. These insights are also used to inform the Company's strategic workforce planning for the short and long term.

Project Highlights in 2022

D

Dinner with management and management visits

Objective: To foster stronger relationships and provide opportunities for direct communication between senior management and employees

Throughout the year, the Human Resources department organized events which brought together employees and senior management from various departments. For the head office, groups of 20-30 employees were invited to a casual dinner with C-suite executives during which employees and executives could get to know each other better and engage in more relaxed conversations. For employees at the Company's power projects, senior management and C-suite executives joined management visits to every power project to meet and engage with all the employees in a sort of mini town hall.

In 2022, the dinners with management and management visits covered 100% of employees at the head office and power projects in Thailand, with highly positive feedback from both employees and executives. The Company will incorporate this initiative as part of its regular engagement process and expects to see increased employee engagement scores next year.



OCCUPATIONAL HEALTH AND SAFETY

Material Impacts

The Company recognizes that a key part of promoting human rights in the workplace is to ensure occupational health and safety for its employees and contractors. By maintaining high safety standards, the Company can achieve mutual benefit for the organization and its key stakeholders, as employees and contractors will feel they are appropriately taken care of and the Company can avoid operational disruptions resulting from accidents or injuries. In addition, prioritizing health and safety in the workplace also benefits the local communities surrounding the Company's operations, as minimizing the risk of accidents also extends to minimizing the risk of environmental or social impacts to the local community, such as injuries or health problems. For this reason, the Company's occupational health and safety management approach ensures it complies, at minimum, with all relevant laws and regulations, and aims to align with international standards that reflect the best practice in this regard.

Target & Progress



* = verified by third party

Management Approach

The Company has set a "Zero Accident" target for all its operations (including construction sites and the head office, as well as work-related transportation and accommodation). As such, the Company has established an Occupational Health and Safety Policy, reviewed by the Sustainability, Governance and Risk Management Committee and approved by the Board of Directors, that sets out the commitments and expectations related to health and safety management in all areas where the Company operates to ensure that the workplace and working conditions are suitable and safe for all employees and contractors. The policy incorporates procedures related to occupational health and safety (OHS) derived from the Company's Environmental and Social Management System (ESMS) which was developed in accordance with the Asian Development Bank's Safeguard Policy Statement. In addition, to align with ISO 45001 standards, in 2022, the Company enhanced the OHS management system at all its operating Independent Power Producer (IPP) and Small Power Producer (SPP) power projects in Thailand, with all operating projects expected to achieve ISO 45001 certification within 2023. To monitor the effectiveness of the OHS management system, an Occupational Health and Safety Committee (OHSC) – comprising plant managers, operations managers, administrative managers, and employee representatives from each department – oversees the health and safety of all employees and contractors at the Company's power projects 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 in line with the ESMS and ISO 45001 standards.

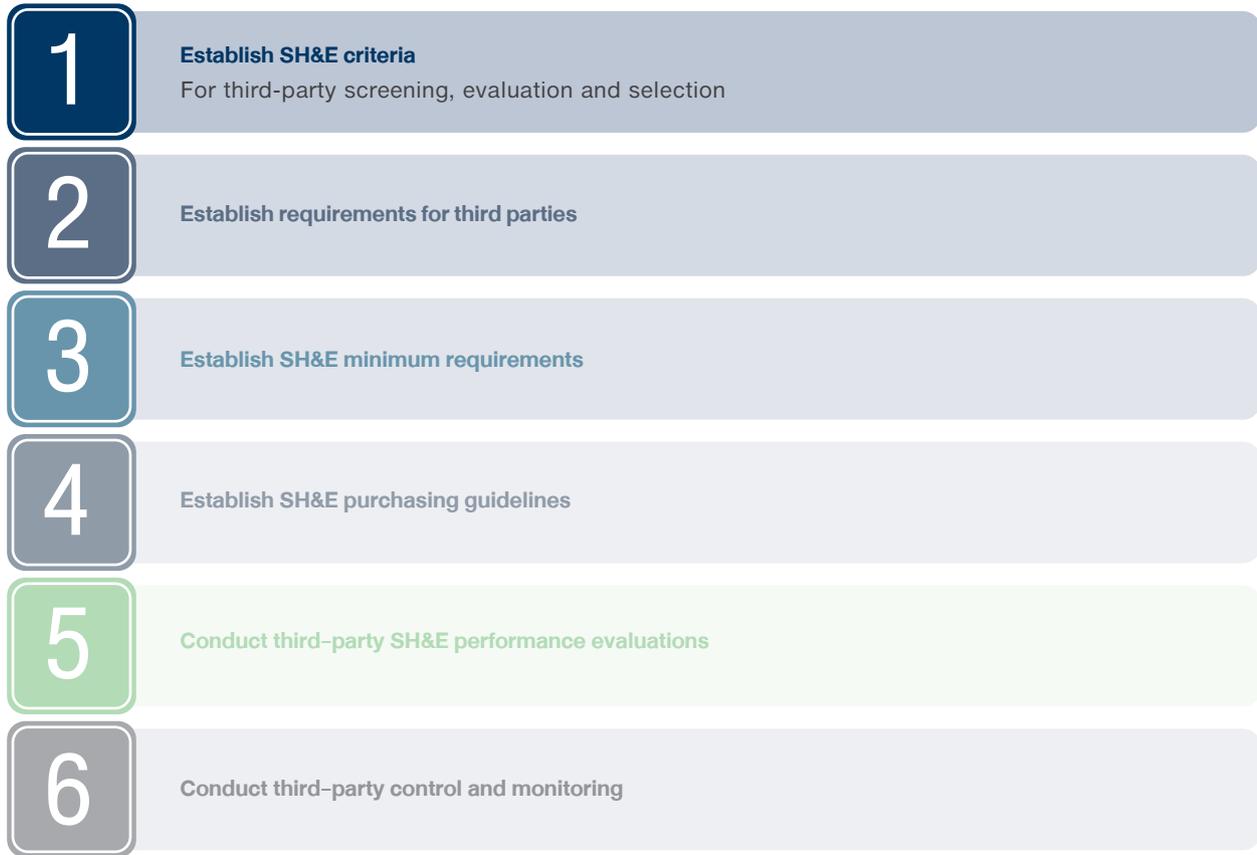
OHS Management Process



Within the Company's own operations, safety inspections are conducted internally, both at the project (site) and corporate levels. At the project level, safety inspections are conducted by the Safety, Health and Environment (SH&E) personnel and the OHSC as part of routine operations, while at the corporate level, safety inspections are conducted on a quarterly basis to ensure that good OHS practice is maintained.

Furthermore, the Company extends its OHS management to its suppliers and contractors both during construction and operation, as well as from the beginning of the supplier selection process. OHS-related expectations for suppliers and contractors, as well as other related third parties, are set out in the Company's Supplier Code of Conduct and included in its standard Terms of Reference (TOR), both of which require written acknowledge from suppliers to become eligible for the Company's approved vendor list. At minimum, suppliers and contractors are required to ensure safe and healthy work environments in compliance with local and international OHS standards, with those implementing higher OHS standards given higher scores in the procurement selection process. During construction and operation, the Company conducts daily health and safety briefings with suppliers and contractors, and closely monitors their work to ensure compliance with all OHS requirements.

Third-party Management Process



OHS Culture

Since the Company has a zero-accident target, with related KPIs at both the project and department level, the Company has regularly conducted safety training and provided tools for both employees and contractors to enhance OHS management and business continuity.

The Company regularly organizes basic safety training covering issues such as safety awareness and basic firefighting, as required by relevant laws and regulations. In addition, training covering advanced and/or specific safety issues are conducted on an annual basis. For 2022 performance, please see 56-1 One Report page 178.



Personnel – Occupational Health and Safety Committee (OHSC), safety team and audit team



Knowledge – mandatory safety training and safety drills, both at the head office and operational sites, and a monthly SH&E newsletter distributed to all employees



Data – safety data collected daily and reported monthly (unless an incident occurs, in which case it is reported immediately), and aggregated at the corporate level



Contractors – safety requirements as part of TOR and/or work contract and a safety briefing every morning.



Behavior – behavior-based safety (BBS) program (online platform for employees to provide commendations or warnings to their peers) to instill a sense of joint responsibility and encourage positive reinforcement, as well as to make monitoring and reporting easier for employees.

Additional Measures to Promote Health and Safety

The Company recognizes that, in addition to ensuring the safety of employees and contractors, it also has a duty to promote good mental and physical health as well as safe working spaces for all its employees and workers. As such, the Company provides a number of additional measures including:

1. Comprehensive life and health insurance (including dental and vision, as well as alternative treatments such as acupuncture)
2. COVID-19 management measures (such as free vaccination and subsidized coverage for boosters, ATK & PCR tests, and treatment) and preventive measures (such as requiring masks at all project sites, ATK testing for all contractors and visitors to project sites, and rotating operating teams to prevent cross-team infections)
3. Healthy activities such as sports clubs (including football, running and yoga) and competitions (such as golf tournaments or badminton competitions)
4. Knowledge sharing sessions about personal health conducted by internal and external speakers (such as representatives from hospitals or insurance companies)
5. Dedicated medical room for employees including cots and basic medical supplies and medications

Project Highlights in 2022

I

Invisible guard

Objective: To enhance safety in specific restricted areas using technology as well as bolster security control in power plants

The Company introduced CCTV and AI monitoring to detect and alert employees to any unauthorized entrance to restricted areas that could violate safety measures and cause accidents.

All restricted areas in power plants are fully controlled and monitored to prevent accidents and work-related hazards. The Company achieved its zero-accident target in 2022.

S

Safety culture survey

Objective: To strengthen and revisit safety culture by conducting a survey of employees (full time, contract and outsourced) in all power plants

The survey, conducted in 2022 by external consultant, covers gap identification and room for improvement based on existing safety culture and benchmarking with peers in the energy and electric utilities sectors.

99.4% of employees participated in this survey. The score will be reviewed, and action plans will be developed by each plant to enhance safety culture.

CORPORATE CITIZENSHIP

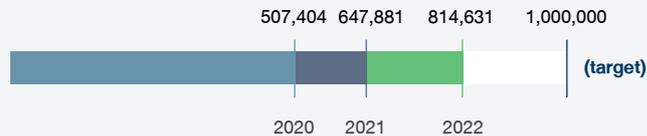
Material Impacts

The Company recognizes that sustainable business growth will only be achieved if it occurs in conjunction with community and social development, especially as the local communities surrounding the Company's operations sites are key stakeholders who may be affected by the Company's activities. As such, the Company makes it a priority to understand and respond to the needs of local communities from the very beginning of any project development plan and throughout all phases of project construction and operation. In this regard, the Company aims not only to minimize or prevent negative environmental and social impacts from its operations, but also to create positive impacts through its corporate citizenship and community development initiatives.

Target & Progress

Beneficiaries of community development initiatives

**5-year target (2020 – 2024):
1,000,000 beneficiaries**



Management Approach

The Company places great importance on creating positive impacts and elevating quality of life for local communities as well as the general society to support sustainable growth and development. To this end, the Company has established a group-wide corporate social responsibility (CSR) strategy, called the "IMPACT" Framework, which is aligned with its business strategies with the aim of creating shared value for all stakeholders. The framework guides the Company's community and social investment with a focus on key areas that contribute to sustainable development and well-being, and is applied both domestically and overseas.

IMPACT

Infrastructure	Medical Services	Productivity	Activity	Conservation	Teaching & Learning
Developing basic infrastructure and public spaces	Promoting public health	Enhancing agricultural know-how	Promoting sports and exercise	Promoting environmental conservation	Supporting education
<p>To leverage the Company's business expertise and capacity in promoting good quality of life and well-being of local community members and under-served people in the society</p>					
					
KPI:					
1. Providing support to at least 10 local public health agencies / facilities		2. Partnering with and supporting at least 10 charities/ foundations		3. Promoting education by providing at least 80 scholarships (primary, secondary, and tertiary (undergraduate) levels)	

The Company has a dedicated Community Relations (CR) department that is responsible for establishing and maintaining good relationships with local communities, and implementing the Company's CSR initiatives. All CSR activities are considered and approved by the Chief Corporate Affairs Officer. A monitoring procedure is in place to ensure the activities' effectiveness which includes seeking feedback from local communities through direct contact by dedicated CR officers who are stationed at all construction and operations areas, conducting an annual community satisfaction survey covering key issues such as engagement, environmental responsibility, and social responsibility, regularly reporting on key issues and progress to senior management and the Company's Executive Committee, and reporting to the Sustainability, Governance and Risk Management Committee (Board sub-committee) at least annually. As a result, in 2022 there were zero protests by local communities against the Company in relation to its operations.



Infrastructure



Medical Services



Productivity



Activity



Conservation



Teaching & Learning

Project Highlights in 2022

I

Infrastructure – Supporting the construction of a faculty center for Vidyasirimedhi Institute of Science and Technology (VISTEC)

Objective: To support the expansion of a new academic unit that aims to develop human capital with transformative technology capabilities and drive VISTEC to become a leading national research and innovation center specializing in research & development (R&D) and advanced postgraduate trainings focusing on advanced materials, energy and environment, biotechnology, and digital technology.

GULF, in collaboration with PTT, provided financial support to build a new faculty center which includes a public space for organizing activities and academic events where academic staff and students can exchange their research ideas.

Benefit to stakeholders: The building provides a safe and inclusive space for staff and students and supports the institute's efforts to attract additional talent.

Benefit to GULF: As research institutions are part of the innovation development ecosystem, supporting such institutes also provides the Company with a stronger candidate pool from which to draw new talent. In addition, the Company may benefit from the R&D findings in areas that are relevant to the business such as AI & Machine Learning, data management and cloud computing.

M

Medical Services – GULF Sparks Smiles

Objective: To provide dental services and knowledge regarding dental care to high-density urban populations, including under-served and vulnerable groups.

Continued for a second year, GULF, together with Faculty of Dentistry, Chulalongkorn University and Public Health Division, Bangkok Metropolitan Administration, provided mobile dental services and knowledge about dental care to 3 under-served communities in Bangkok. This project expands from the Company's initiative in the previous year to support under-served communities affected by the COVID-19 pandemic.

Benefit to stakeholders: This helps under-served communities in Bangkok access dental services free of charge and increases understanding about dental care.

Benefit to GULF: The Company is able to develop good relationships with local communities by improving their quality of life which leads to having a positive reputation among end users of the Company's electricity generation.

In 2022, approximately 300 people received free dental care which would normally cost around 1,000 THB per family (equivalent to approximately 7% of the monthly combined income of two parents working at minimum wage).

P

Productivity – New Theory Agricultural Learning Center and Demonstration Farm

Objective: To support local agriculture and demonstrate that the Company’s power projects can operate in harmony with the local community with no negative impacts on agricultural productivity.

The New Theory Agriculture Learning Center and Demonstration Farm, which has operated for 8 years, is situated next to the Gulf Nong Saeng (GNS) power plant*, covering an area of 10 rai with various agricultural activities including organic farming, organic & earthworm fertilizer production, and an integrated farming system that diversifies poultry, fish and vegetation in the same area and links agriculture and aquaculture. Local farmers can gain knowledge and skills from the Learning Center, while casual visitors can enjoy the products from the farm and use the farm as a recreational space.

Benefit to stakeholders: The Demonstration Farm does not only serve as a learning center for the local community and the public, but also generates income for the community by hiring local community members to maintain the project, buying goods from local farmers, employing local community members to provide services to the project, and selling agricultural products from the farm to local community members to resell.

Benefit to GULF: The project emphasizes its commitment to operate responsibly with no negative impacts to local communities. In addition, it demonstrates that the Company adheres to the Environmental and Health Impact Assessment (EHIA) requirements to utilize land as a green space. As a result, it strengthens the relationship between the Company, the community and local regulatory agencies.

In 2022, the project organized several knowledge sharing sessions to upskill local farmers and generated more than 500,000 THB additional income for the local community.

* It is under Gulf JP Company Limited, an associate under Gulf Group.

A

Activity – GULF Football Clinic

Objective: To promote sports and provide career-building opportunities for young football players in the local communities in Rayong province.

GULF, in partnership with Buriram United, a leading football club in Thailand, organized a “Gulf Football Clinic” for a 2nd consecutive year. The Company organized a clinic for students and teachers from Wat Ta Kuan school in Rayong province at the Buriram United training center (in Buriram province) where they learned football skills from professional football coaches, thus helping to pave the way for the students to become professional football players in the future.

Benefit to stakeholders: The students were able to improve their skills and received advice for further development. In addition, they were able to gain greater insight into the world of professional football, in terms of the training involved, the skills required, and the feeling of a professional football match.

Benefit to GULF: As football is the most popular sport in Thailand and Rayong has a team in the country’s top professional league, providing opportunities for local children to train for the top level of the sport helps the Company to create a good relationship with the local communities in Rayong province where the Company currently has projects in operation, with additional projects in development and/or under construction.

In 2022, 34 students from Wat Ta Kuan school participated in the clinic. They also served as representatives, sharing their experience with their peers at school and in their own communities.

C

Conservation - GULF Sparks Energy

Objective: To provide children with basic knowledge about power generation (including how the Company's power plants work), different energy sources, and energy conservation.

The Company organized the "GULF Sparks Energy" program for the 2nd consecutive year in Nong Khai and Loei provinces. The environmental education program is conducted through various interactive activities which provide school children with an overview of green energy trends, power generation, energy sources, and environmental protection as well as information on how they can help save energy in their daily lives.

Benefit to stakeholders: Students living near power plants will have better understanding of how electricity is generated from different energy sources as well as the advantages and disadvantages of each source. Students also learn about energy conservation and energy-saving techniques which can be applied at their homes and in the local community, which will also benefit the country as a whole.

Benefit to GULF: Providing specific and accurate information about the power generation industry helps prevent misunderstanding and subsequent mistrust or resistance to power generation companies (including GULF).

In 2022, 1,000 students from 10 schools in the 2 provinces participated in the program and gained greater understanding about energy conservation and different types of energy sources.

T

Teaching and Learning – Building renovation for the Saraburi Special Education Center (Kaeng Khoi branch)

Objective: To support improved learning facilities for local children in Kaeng Khoi district requiring special education.

The Company funded the renovation of the main building of the Saraburi Special Education Center (Kaeng Khoi branch). The center is the central public special education center for the district, providing early intervention for young children with varying disabilities through an individualized education program implemented by trained specialists.

Benefit to stakeholders: The students at the center will have a safe and suitable environment for learning which enables them to gain knowledge and develop the skills necessary for daily life. This renovation allows the center to serve more students who need special care, thus providing greater access for people in the district who previously had to send their children to centers in other districts or kept them at home if they could not travel.

Benefit to GULF: This initiative helps to demonstrate the Company's commitment to diversity and inclusivity which in turn helps build trust and good relationships with the local community.

The center currently serves approximately two dozen students, with the capacity to serve up to 60 students. The students received knowledge and skills to help them in their daily lives, with some students being prepared for integration back into the mainstream.

HUMAN RIGHTS

Material Impacts

The Company recognizes that human rights are a fundamental part of sustainable development. As the Company is committed to enhancing quality of life in every area where it operates, it is important to ensure that it operates its business in a manner which respects human rights. This means ensuring that the Company's operations, as well as that of its business partners and suppliers, do not violate labor rights, are non-discriminatory, and promote good health, safety and well-being for its various stakeholders including employees, local communities and the general society. Respect for human rights also means minimizing any potential negative environmental or social impacts, and supporting actions that will have positive impacts such as supporting education, gender equality, and individual liberties. To this end, the Company has established a Human Rights Policy and human rights due diligence process which serve as the foundation for the Company's efforts to create shared value for all.

Target & Progress

Coverage of human rights risk assessment*



* Scope: own operations, contractors and suppliers, and joint ventures

Management Approach

The regulatory frameworks within the context of the Company's operations – both in terms of location and industry sector – already facilitate socially responsible business conduct. In any case, the Company continues to expand on its human rights commitments both within and outside the organization. The Company has established a Human Rights Policy which sets out its commitments to fairness and equality, inclusion and diversity, non-discrimination, labor rights, and health and safety, as well as a commitment to support human rights throughout its value chain and among internal and external stakeholders. The Company has also set out a clear zero-tolerance policy regarding child labor, slave labor, forced labor, or any form of human trafficking. These commitments are undertaken in compliance with relevant laws and regulations and in alignment with international principles including the Universal Declaration of Human Rights, the Conventions of the International Labour Organization, and the United Nations Guiding Principles on Business and Human Rights (UNGPs).

To support this, the Company has also established complementary policies such as its Diversity Policy and Non-discrimination and Harassment Policy. For all counterparties including business partners, suppliers and contractors, the Company has implemented a Supplier Code of Conduct which covers, among other issues, its expectations regarding human rights and social responsibility. The Company also ensures its commitments are communicated to stakeholders including employees, regulatory agencies, and suppliers and partners. In 2022, the Company took an additional step in its commitment and became a member of the United Nations Global Compact.

To facilitate the implementation of its human rights commitments, the Company established a human rights due diligence process, guided by the UNGPs, which is used as a basis for the identification, assessment and management of human rights risks and relevant remediation.

Human Rights Due Diligence Process



Human Rights Risk Assessment

The human rights risk assessment is conducted on a regular basis, at least annually. The process begins with an examination of different areas of the Company's business; 1) at head office, 2) at sites in operation, 3) at sites under construction and development, and 4) within the local communities where the Company operates.

Scope of activities	Human rights issues assessed	Related stakeholders	% of sites assessed	% of sites with sufficient internal controls
Business activities				
Head office	<ul style="list-style-type: none"> - Labor rights such as equal remuneration, fair compensation and appropriate working hours - Non-discrimination - Health & safety - Gender equality 	<ul style="list-style-type: none"> - Employees - Women 	100	100
Sites in operation	<ul style="list-style-type: none"> - Labor rights such as fair compensation, appropriate working hours, and non-discrimination - Health & safety - Impacts from business operations 	<ul style="list-style-type: none"> - Employees - Contractors - Suppliers - Visitors - Local communities 	100	100

Management measures

- Set out Human Rights Policy, Diversity Policy, And Non-Discrimination and Harassment Policy to ensure human rights protection in the workplace
- Set out and communicate Code of Conduct as a guidance for appropriate conduct, including promoting occupational health and safety, with mandatory annual training
- Comply with ISO 45001 standards
- Develop Emergency Response Plans and conduct regular drills
- Provide PPE for staff and visitors in operating sites, and conduct safety briefings for all suppliers, contractors and visitors
- Conduct regular meetings with local communities (e.g. Environmental Impact Committee meetings) to monitor human rights impacts

Scope of activities	Human rights issues assessed	Related stakeholders	% of sites assessed	% of sites with sufficient internal controls
Related activities				
Sites under development and construction	<ul style="list-style-type: none"> - Labor rights such as human trafficking, forced labor - Migrant labor - Child labor - Health & safety - Impacts from business activities 	<ul style="list-style-type: none"> - Employees - Contractors - Suppliers - Migrant workers - Children - Vulnerable groups in the local communities (e.g. indigenous people) 	100	100
Management measures				
<ul style="list-style-type: none"> - Conduct an environmental and social impact assessment and establish mitigation plans before beginning construction on any major project - Require contractors to provide written acknowledgement of and comply with the Company's Supplier Code of Conduct, covering human rights issues including labor rights and other rights stipulated in international standards - Include human rights criteria in TORs and contracts for suppliers and contractors - Conduct daily safety briefings before commencing work - Station a site manager and designated staff to screen contractors and monitor safety 				
Local communities surrounding operating sites	<ul style="list-style-type: none"> - Impacts from business operations - Health & safety 	<ul style="list-style-type: none"> - Local community (including women, children, and vulnerable groups) 	100	100
Management measures				
<ul style="list-style-type: none"> - Set out an Environmental and Social Management Policy - Set targets such as zero waste to landfill to minimize environmental impacts from operations - Conduct regular environmental impact monitoring (e.g. continuous emissions monitoring) - Appoint Community Relations Officers and Safety Officers to every area/ site to serve as contact points for the local community - Conduct regular meetings with local communities (e.g. Environmental Impact Committee meetings) to monitor human rights impacts 				

The Company has established communication channels through which any reports or complaints regarding human rights violations can be communicated (please see page 52). All reporters are protected under the Company's Whistleblowing Policy. The Company has developed a clear grievance mechanism to ensure any reports or complaints it receives 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 the management and the Sustainability, Governance and Risk Management Committee on a regular basis. The Company's assessments have determined that its internal control and human rights risk mitigation plans are adequate and appropriate at all sites. In 2022, the Company received 0 complaints and had 0 substantiated incidents of human rights violations.

Project Highlights in 2022

1

International Women's Day #breakthebias

Objective: To raise awareness about women's rights and promote gender equality in the workplace

In honor of International Women's Day (8 March 2022), the principles of gender equality and women's rights were communicated to employees via the Company's internal communications platform. Quotes and inspirational messages from the Company's female employees were posted, and all employees were encouraged to post messages illustrating women's rights and equality on the Company's platform as well as their own personal social media using the hashtag #breakthebias.

The communications reached all 1000+ employees of the Company with strong participation from both men and women. The Company continues to uphold its commitment to gender equality, with females comprising approximately 40% of management and 0 complaints of discrimination or harassment.



CORPORATE GOVERNANCE AND ANTI-CORRUPTION

Material Impacts

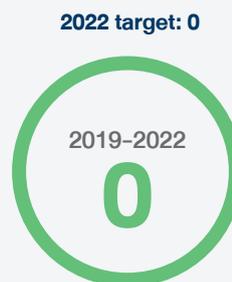
The Company recognizes that good corporate governance is essential for achieving business sustainability as it sets the foundation upon which all of the company's processes and activities are built on. By ensuring transparency, fairness and accountability, the Company not only reduces the risk of misconduct within the organization, but also improves its business relationships with partners, investors, suppliers, consumers, and other stakeholders. The Company's commitment to uphold the principles of good corporate governance includes protecting the rights of shareholders and investors, supporting appropriate and ethical business conduct, and opposing bribery and corruption, and also extends to ensuring oversight on key issues such as human rights, especially with regards to equal treatment and non-discrimination, risk management, and privacy protection, all of which will help the Company succeed in its efforts to minimize negative impacts to stakeholders and create shared value for all.

Target & Progress

Corporate Governance Report of Thai Listed Companies (CGR) rating



Number of substantiated complaints regarding corruption/ or breach of Code of Conduct

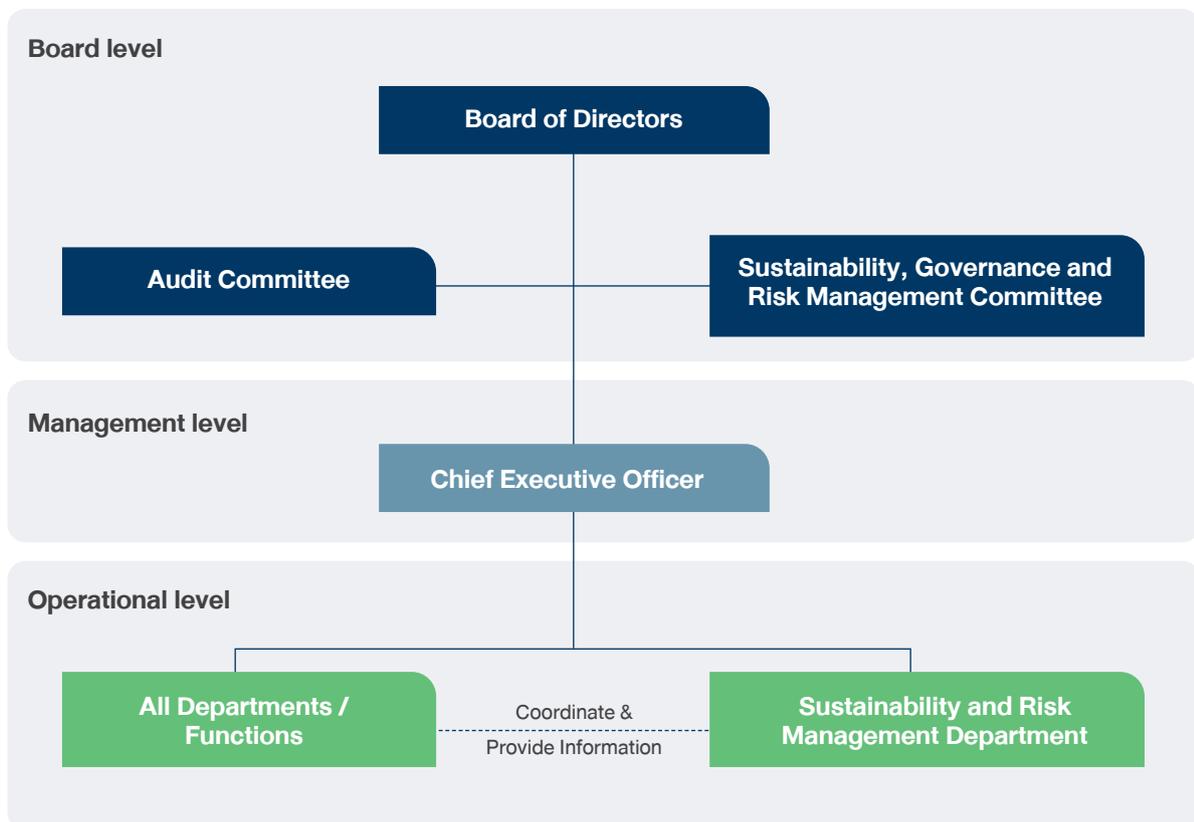


Management Approach

The Company is committed to conducting business in line with the principles of good corporate governance, in compliance with Securities and Exchange Commission's and Stock Exchange of Thailand's Corporate Governance Code as well as other relevant national and international standards such as the United Nations Global Compact. To this end, the Company has established a governance structure which ensures appropriate oversight and management of corporate governance issues at all levels, from operations up to the Board level. As the Company recognizes that corporate governance is one of the three key components of sustainable business along with environmental and social responsibility (referred to collectively as ESG), it has established a Sustainability and

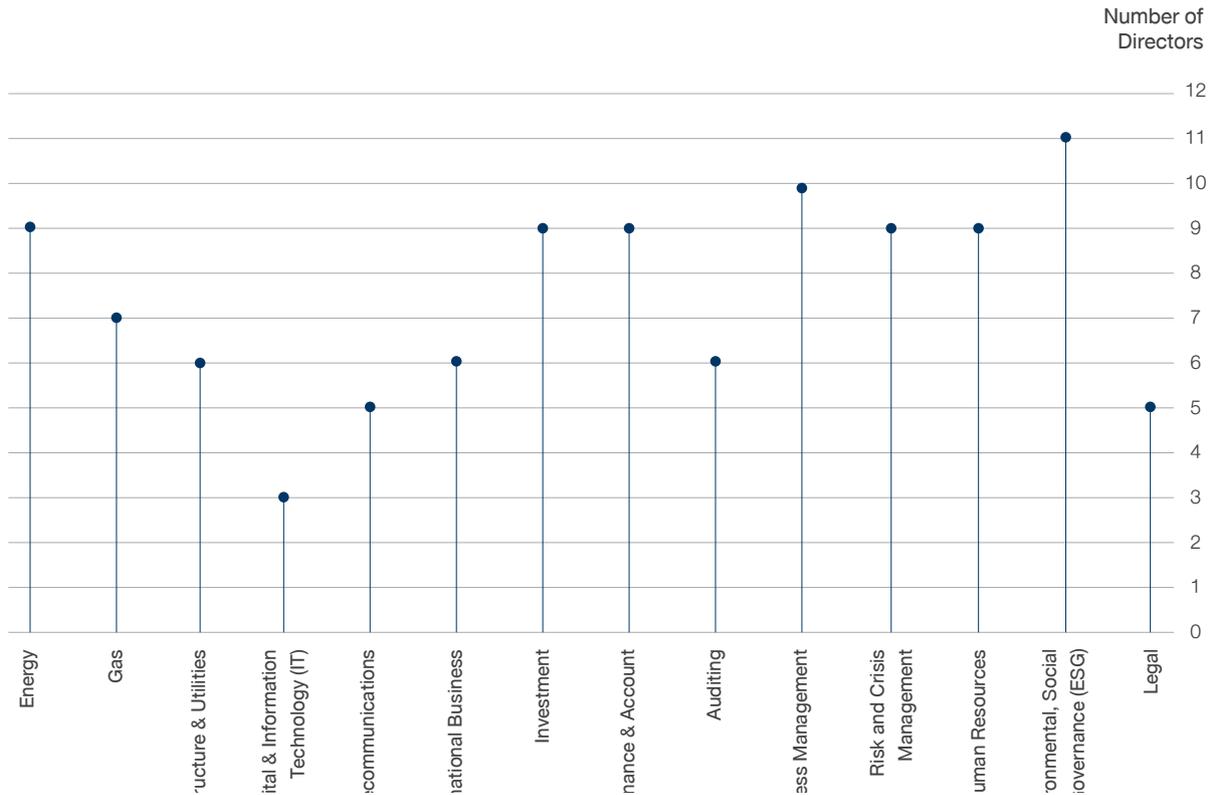
Risk Management department which is responsible for ESG-related matters at the operational level. The department is also responsible for coordinating with other departments and functions, such as the Corporate Secretary Department, Internal Audit Department and Corporate Legal Department, on matters related specifically to corporate governance, including policy reviews, compliance, and information disclosure. All matters are reported to the management, through direct reporting lines as well as various management committees including the Executive Committee which is headed by the Chief Executive Officer. Key issues are reported directly to the Board, which meets once a month, or through dedicated Board sub-committees which meet at least once per quarter: (i) the Audit Committee, which is responsible for, among other things, monitoring corruption risk and reviewing reports of misconduct, and (ii) the Sustainability, Governance and Risk Management Committee, which is responsible for, among other things, monitoring ESG-related matters (including compliance with laws and regulations covering issues such as non-discrimination, privacy, non-financial disclosures, and supply chain management) and reviewing corporate policies.

Corporate Governance Structure



To ensure that the Company's directors have the sufficient experience and skills necessary to provide oversight and guidance for the Company's business strategies and direction for long-term growth, the Company has developed a skills matrix that is used to consider candidates for the Board of Directors. This matrix is used in conjunction with various Company policies related to director nomination, diversity, and corporate governance to select the most appropriate combination of directors for the Board.

Board of Directors: Expertise



Board of Directors: Composition and Diversity



Anti-corruption

Anti-corruption is a key part of the Company’s corporate governance work as the Company is committed to conducting business in an ethical manner. As such, the Company has established a group-wide Anti-Bribery and Corruption Policy to supplement its Code of Conduct, both of which are applied at all levels, including the Board of Directors, executives and employees, to guide appropriate conduct and maintain business integrity. These expectations are also extended to the Company’s business partners, suppliers, contractors, and other relevant external stakeholders through its Supplier Code of Conduct. To support its commitment to ethical business practice, in 2022, the Company became a certified member of the Thai Private Sector Collective Action Against Corruption (CAC) as well as the United Nations Global Compact.

Corruption Risk Assessment

The Company conducts corruption risk assessment on an annual basis as part of its corporate risk assessment process. Corruption risks (defined by the CAC as paying for business opportunities, paying for convenience, or paying for wrongdoing) are mapped against key business processes for every business unit as well as all departments and functions. The risk level is assessed based on impact and likelihood, and key controls and mitigation plans are established for all significant risks. Risk owners are identified, and a dedicated working team regularly monitors the status of risk management before reporting the findings to management and the Board as appropriate.

To ensure appropriate management of corruption risks, the Company has established an Anti-corruption Committee comprising senior management from relevant functions, such as Human Resources, Corporate Legal, and Accounting, and chaired by the Deputy Chief Executive Officer, with the responsibility to oversee the implementation of the Company's anti-corruption policy and corruption risk management process. The committee is supported by a cross-functional working team who are responsible for driving the implementation of relevant policies and procedures across the group, conducting corruption risk assessments, and monitoring the Company's performance with regards to anti-corruption. Findings are reported to the Anti-Corruption Committee at the management level and to both the Audit Committee and Sustainability, Governance and Risk Management Committee at the Board level on a regular basis.

Reporting and Whistleblowing

The Company has established a whistleblowing and response mechanism which allows any party, whether internal or external, to report any suspected incidences of misconduct including but not limited to bribery, corruption, discrimination, harassment, breaches of privacy, unlawful actions, or any other violations of the Company's policies or regulations.



Internal Channels

- Head of Internal Audit
- Human resources
- Direct supervisor



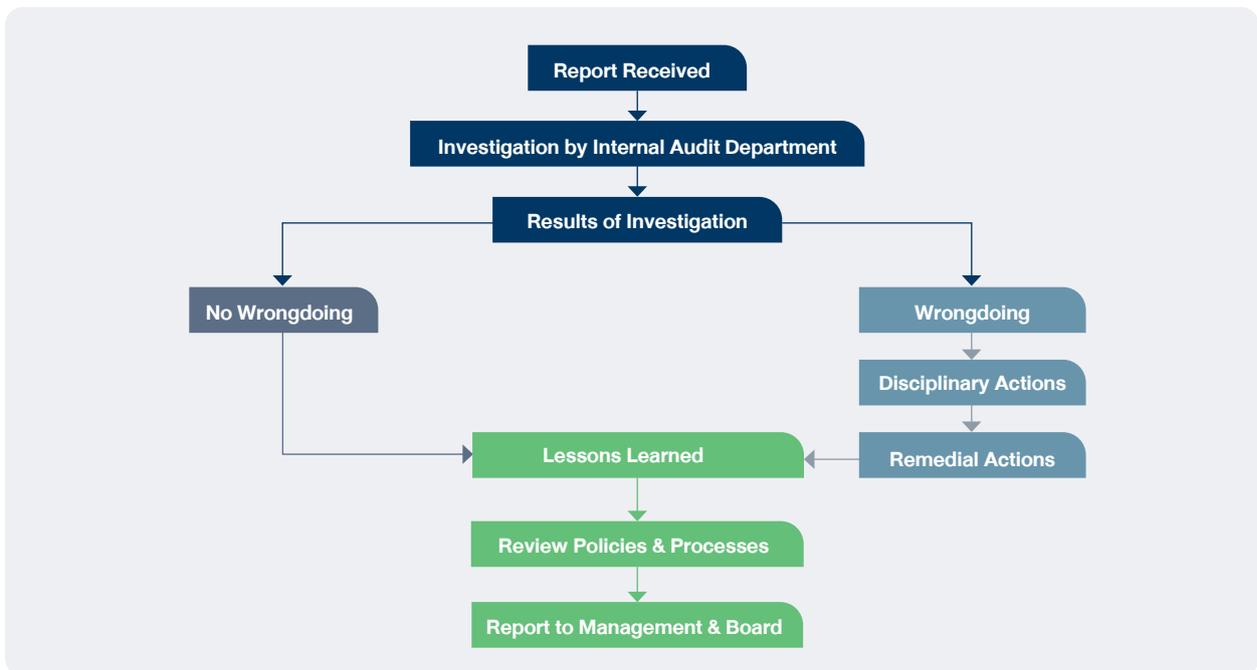
External Channels

- Post to the Chairman of the Audit Committee or the Company's director at 87 M.Thai Tower 11th Floor, All Seasons Place, Wireless Road, Lumpini, Pathumwan Bangkok 10330
- Email to the Internal Audit Department at ia@gulf.co.th or to the Chairman of the Audit Committee at ac@gulf.co.th
- Telephone to Whistleblower Unit at 02-080-4500

All reporters are protected under the Company's Whistleblowing Policy. If the Company receives a report or complaint, the issue is passed to the Internal Audit Department who work independently from all other functions and management. The Internal Audit Department will investigate the issue and may assign a multidisciplinary team to support the fact-finding process if needed. Should any employee of the Company be found to have violated Company policy, disciplinary actions will be applied in line with Company policy and applicable labor laws. Such actions may range from verbal or written warnings to termination of employment, and may also result in legal action being taken against the individual in cases of criminal wrongdoing. At the same time, remedial actions will be applied to compensate any affected parties and to mitigate any negative impacts resulting from the violation. The Company also conducts lessons learned sessions to identify gaps or weaknesses and to guide reviews and improvements of its policies and processes. Findings are reported to the management and Board committees as required or in line with regular reporting schedules.

In 2022, there were no substantiated cases regarding bribery and corruption, discrimination, breach of privacy, or criminal wrongdoing.

Whistleblowing and Response Mechanism



Training and Culture Creation

To support its commitment to good corporate governance and anti-corruption, the Company places great importance on instilling a culture of ethics and responsibility within the organization. To this end, the Company has established a mandatory training program which includes e-learning courses about the Company's Code of Conduct, Anti-Bribery and Corruption, and Cybersecurity (to support information security and privacy protection) that all employees and executives are required to complete (and achieve a pre-established minimum score) every year. In addition, the Company also regularly distributes informational notes and infographics related to corporate governance issues to all employees through its internal communication platform, as well as supports employees to participate in external training related to corporate governance and anti-corruption. (For more information, please refer to the 56-1 One Report, page 169.)

Project Highlights in 2022



Workshop: "STRONG: sufficiency mindset against corruption" coaches program

Objective: To develop the skills and knowledge of individuals who will act as coaches to promote anti-corruption within their own organizations under the "STRONG" model.

The "STRONG: sufficiency mindset against corruption" program is run by the Office of the National Anti-Corruption Commission. "STRONG" stands for: Sufficient, Transparent, Realise, Onward, Knowledge, Generosity. Organizations are encouraged to become part of the STRONG network against corruption, and employees are selected by the organization to attend training to become STRONG coaches. The coaches will be responsible for conducting anti-corruption training and activities for employees of the organization.

Ten Company employees from various functions participated in the coaching workshop in 2022. The Company will conduct STRONG activities in 2023 based on the knowledge gained in the workshop.

SUSTAINABLE SUPPLY CHAIN MANAGEMENT

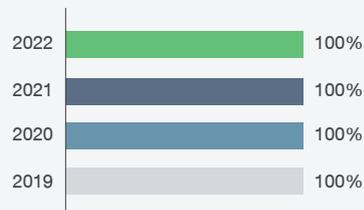
Material Impacts

The Company recognizes that all businesses are part of a larger system and no business operates in isolation. As such, businesses cannot achieve sustainability on their own, but rather, must work to create a strong and sustainable value chain that includes ensuring upstream products and services from suppliers align with the business' commitments to environmental and social responsibility, good corporate governance, and ethical business practice. In this way, the Company can ensure that it is making a positive impact not just for its own employees and investors, but also for its suppliers, contractors, business partners, and other stakeholders along the entire value chain. In addition, by integrating environmental, social and governance (ESG) issues into its supply chain management, the Company can expand the scope of its risk assessment to cover potential external impacts from its suppliers, contractors or other business relationships, allowing for more effective risk prevention and mitigation which in turn helps to ensure a more secure supply chain for the Company and its operations.

Target & Progress

Percentage of suppliers that were screened using ESG criteria

2025 target: 100% of tier 1 suppliers



Management Approach

The Company places great importance on conducting business in a sustainable manner across its supply chain and promoting responsibility among suppliers by developing strategic partnerships with suppliers who could provide better quality products and services with positive impacts to the environment and various stakeholders. To this end, the Company has established a procurement policy which promotes transparent and fair procurement and also integrates ESG issues into the supplier selection criteria. It also has a green procurement policy which supports the selection of environmentally-friendly products or services. Furthermore, the Company has established a Supplier Code of Conduct which is communicated to all suppliers as a standard to ensure their conduct aligns with the Company's commitment to sustainability.

Supplier Assessment

The Company utilizes an e-bidding system, operated by its procurement teams, through which the majority* of its suppliers must register and submit documentation. Supplier assessment and selection is conducted through the system to ensure all scoring is properly documented. Part of the assessment includes a supplier ESG assessment to determine suppliers' management of key environmental, social and governance issues such as waste management, climate management, child labor, occupational health and safety, anti-corruption, and responsible accounting. Among its active suppliers, the Company identifies critical and high-ESG risk suppliers which allows the Company to more effectively manage supply chain risks. In addition, the Company conducts supplier audits on an annual basis, with suppliers to be audited selected using a risk-based approach.

* Some key suppliers, such as gas or electricity suppliers, are selected through direct negotiation as the supplier may be the only option (e.g. national electricity supplier) or one of only a few specialized/ technical suppliers (e.g. world-class steam turbine suppliers).

Supply Chain Management Process



Risk Identification

Sustainability risks in the supply chain are risks which have the potential to impact the Company's operations, earnings or reputation and include financial mismanagement (including fraud), corruption, human/ labor rights, or environmental violations by suppliers.

All suppliers must be verified to ensure basic standards are met (such as being a properly-registered legal entity, having the appropriate minimum experience and qualifications, and not being blacklisted).

- Critical and technical suppliers' technical qualifications, certifications and reputation are also verified. Interviews/ continuous discussions with critical suppliers are conducted to identify risks with the potential to disrupt operations/ impact earnings.
- Non-critical non-technical suppliers' risks are considered based on industry type (such as manufacturing where there is a risk of environmental violations such as illegal dumping of chemical waste). Site visits are conducted with high-risk suppliers.

Assessment for 2022

	Number of suppliers	Share of procurement spent	Number of suppliers assessed for ESG risks in the last 3 years
Tier 1 suppliers <i>Suppliers directly supplying goods, materials or services to the Company / Group</i>	1179	100%	1179
Critical tier 1 suppliers <i>High-volume or non-substitutable suppliers, or suppliers providing critical components</i>	13	97%	1179
Critical non-tier 1 suppliers <i>Suppliers providing critical components or critical raw materials to the Company's Tier-1 suppliers or their suppliers (at any level in the chain)</i>	2	-	2

To ensure effective integration of ESG issues in its supply chain management process, the Company sets annual ESG-related KPIs for supply chain management and will continue to work to strengthen the entire value chain in the long term.

KPI	Target	Target year	Progress
Environmental			
Number of serious environmental violation by suppliers	Zero environmental violations by suppliers resulting in legal action, official warning or fines for the supplier related to the product/ service supplied to the Company or for the Company itself	2022	100%
Social			
Number of serious human or labor rights violation by suppliers	Zero human or labor rights violations by suppliers resulting in legal action, official warning or fines for the supplier related to the product/ service supplied to the Company or for the Company itself	2022	100%
Governance			
% of suppliers providing written acknowledgement of the GULF Supplier Code of Conduct	100% of tier-1 suppliers providing written/ recorded acknowledgement of the GULF Supplier Code of Conduct and/or relevant changes/ updates to the supplier Code of Conduct	2022	100%

Project Highlights in 2022

S

Supplier site visits

Objective: The Company conducts onsite visits to suppliers to examine their manufacturing process, providing recommendations to improve certain aspects (often through collaborative efforts with the Company) in order to ensure the supplier's processes meet the Company's standards and expectations.

The Company's visit is based on selection criteria such as business size, sales revenues, and sales volume. The Company will inform suppliers that the Company will visit them. However, the date and time is not announced to ensure that the Company will gain insights from the actual working environment. The assessment includes checking whether the production process of the supplier creates negative environmental impacts that will violate the Environmental Impact Assessment criteria. Suppliers will present their company profile including their environmental and safety regulations. The Company will emphasize and encourage suppliers to improve their process, where necessary, in order to maintain operational efficiency.

INFORMATION SECURITY AND CYBERSECURITY

Material Impacts

The Company recognizes that the future is becoming more digitalized, with digital tools and technology playing a greater role in every aspect of life and business. Furthermore, as the Company expands its business relationships overseas as well as to retail customers both in the energy and digital sectors in line with its business growth and diversification strategies, it must ensure that it has the appropriate measures in place to maintain information security, protect data privacy, and prevent data loss. On a related note, the Company also recognizes that its performance as a leading power producer and provider of foundational infrastructure services has a direct impact on energy security and supporting economic growth. As such, it is important to protect against any potential cyber threats which may impact operations, such as hacks or ransomware, by maintaining strong and effective cybersecurity measures. Thus, the Company has put in place a number of management measures to ensure it is able to protect its data as well as that of its business partners, suppliers, employees and customers, maintain protections on individuals' right to privacy, and prevent disruptions to its operations from cyberattacks.

Target & Progress



* Cybersecurity breaches refer to any unauthorized access to the Company's infrastructure, systems or data resulting in significant financial or operational impacts to the Company.

** Data breaches refers to any unauthorized access to or disclosure of data, or the accidental or intentional unlawful destruction, loss or alternation of data.

Management Approach

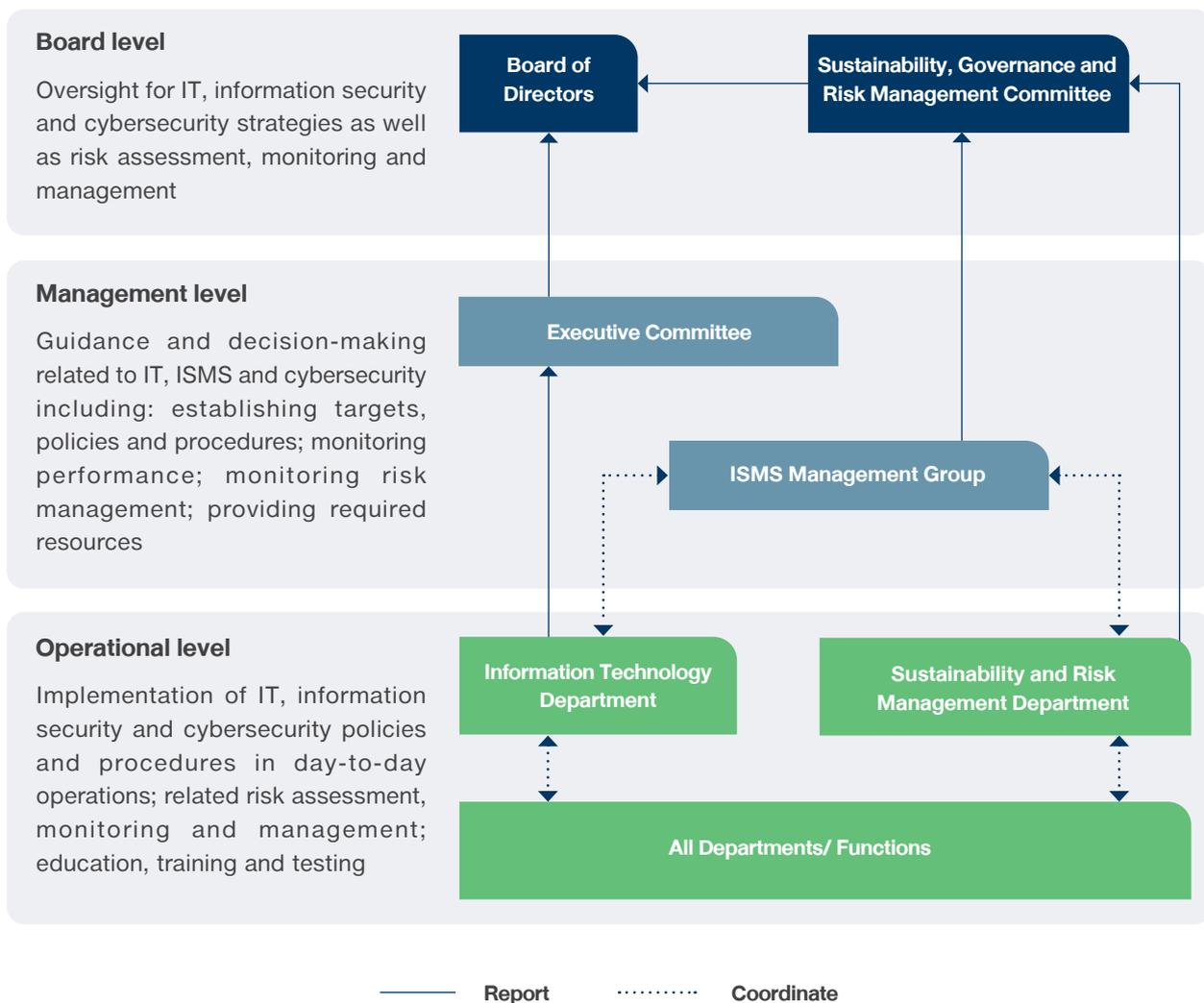
The Company makes it a priority to ensure both information security and cybersecurity in its management and operations in order to prevent unauthorized access or use of its information and systems, especially any systems related to information technology (IT). The Company therefore manages both information security and cybersecurity in compliance with relevant laws and regulations, at minimum, as well as international standards.

Specifically, the Company has enhanced its management processes and IT infrastructure and systems to comply with ISO/IEC 27001:2013 (Information Security Management) and NIST Cybersecurity Framework standards, with 100% of its Enterprise Resource Planning (ERP) systems and infrastructure certified to the ISO standard and 100% of its cybersecurity management aligned with the NIST framework. To achieve this, the Company has in place a strong management system which includes regular risk assessment of its infrastructure and systems

along with continual threat monitoring, internal and external vulnerability analyses such as penetration testing and hacking simulations, IT risk culture creation, and internal and external audits and verification of its processes and systems. The Company invests in the most appropriate systems and tools to support IT-related risk management, such as multi-factor authentication, and regularly invests in upgrades and improvements in order to maintain sufficient security as new threats emerge.

The Company has also implemented an information security management system in line with ISO/IEC 27001 requirements, including designating an ISMS management group, comprising middle and senior management from multiple functions and chaired by the Company’s Head of IT. The Head of IT reports directly to the Chief Corporate Affairs Officer who is responsible for ensuring the Company’s IT operations and management align with business strategies and performance objectives, while the ISMS management group reports directly to the Sustainability, Governance and Risk Management Committee which is responsible for providing oversight for IT, information security and cybersecurity risk monitoring and management at the Board level.

Information Security and Cybersecurity Governance



NIST Cybersecurity Framework

1**Identify**

Identify systems, procedures and assets that need management and protection

GULF measures: Governance structure, asset and risk management including supply chain risk management through vendor evaluation and risk assessment

2**Protect**

Protect by implementing appropriate safeguards for critical systems and assets

GULF measures: Access control using user multi-factor authentication for all employees and high privilege accounts, and Privilege Access Management (PAM) tools to access critical systems

3**Detect**

Detect by identifying cyber incidents

GULF measures: Continuous Security Monitoring using cyberthreat intelligence and Security Operations Center (SOC) capabilities to assess implemented measures and monitor cyberthreats.

4**Respond**

Respond to contain cyber incidents

GULF measures: Practice incident response plan activation at least annually through attack simulations and third-party services for forensic assessment

5**Recover**

Recover to restore systems and ability to operate and provide services caused by cyber incidents

GULF measures: Recovery planning including backup and restore process as well as business continuity plans, disaster recovery plans and exercises

Culture Creation

As employees continually use assets and access data in their day-to-day work, the Company recognizes employees' vital role as the first line of defense against IT, information security and cybersecurity-related risks. Therefore, the Company has placed a lot of effort into developing a strong information and cybersecurity risk culture across the organization in order to raise awareness and educate employees about appropriate conduct and risk prevention. These efforts include:

- **Mandatory annual e-learning** about information security and cybersecurity to improve employees' understanding about their role in preventing IT, information and cybersecurity risks. The contents include confidential data management, appropriate internet usage, password security and phishing emails.
 - Regular, unannounced **phishing email tests** sent to all employees at least once at various times throughout the year to raise employees' awareness and vigilance
 - **Disaster recovery plans (DRP)** for infrastructure failures, cyber-attacks, information and cyber breaches, and other system failures. DRPs are simulated and tested at least annually as part of a regular review and improvement process.
 - **Newsletters and infographics** circulated to all employees throughout the year to update awareness about new types of cyber-attacks and how to respond appropriately
- Knowledge sharing events** focused on key issues such as data sensitivity and management, social media usage, and cybersecurity threats

Project Highlights in 2022

C

Cybersecurity week

Objective: To enhance awareness about cybersecurity, provide updates on regulations for employees, and strengthen cybersecurity culture

Six online sessions were conducted in July 2022 with specialists from both within and outside the organization as speakers. The topics included:

- **Cybersecurity:** to enhance understanding of cyber risks, processes to break the system, and business continuity plan preparation.
- **Operation Technology (OT) Security for Power Plants:** to explain updates to IT regulations related to power plant operations and plants' IT, information and cybersecurity management
- **Business Email Compromise (BEC) and Ransomware Outbreak 2022:** to enhance employees' understanding of email-related risks and how to protect against such risks
- **Phishing Emails and Scammers:** to enhance understanding of cyber-attack trends and their patterns
- **PDPA:** to explain the Thailand Personal Data Protection Act (PDPA) and enhance understanding about data owners' rights and policy implementation.
- **Incident Response 101 for Users:** to teach users how to identify suspicious websites as well as signs of viruses and malware, and how to respond appropriately

Throughout the cybersecurity week, 360 participants attended the sessions.



GRI
content index



2022
ESG data



3rd party
assurance statement



Gulf Energy Development Public Company Limited

87 M.Thai Tower 11th Floor, All Seasons Place, Wireless Road,

Lumpini, Pathumwan, Bangkok 10330

Tel: +662-080-4499 | Fax: +662-080-4455

E-mail: contact@gulf.co.th