

Environmental Stewardship at GULF

Environmental Stewardship At GULF	3
Translating Policy Into Management And Implementation	4
Approach To GULF's Environmental Stewardship	5
2025 Environmental Performance At A Glance	6
Enhancing Energy Efficiency In Operations	7
Tackling Climate Change	8
Carbon Footprint for Organization (CFO) and Carbon Footprint of Product (CFP)	9
Promoting Zero Waste To Landfill	10
Managing Water At GULF	11
Safeguarding Biodiversity	12
Integrating Sustainability Into Operations	13

Environmental Stewardship at GULF

- GULF's environmental stewardship approach is grounded in its Environmental and Social Management (ESM) Policy and is implemented through ESM Standards that translate these commitments into consistent operational controls.
- Environmental priorities are informed by the double materiality assessment (DMA), together with Thailand's Nationally Determined Contribution (NDC) and global Net Zero and other sustainability commitments, allowing the Company to focus on the risks, impacts and opportunities most relevant to its business, stakeholders and the environment.
- Dedicated management programs for energy, climate change, waste and pollutants, water and biodiversity establish clear responsibilities, targets and action plans, supported by employee engagement and implementation across operations.
- Performance is monitored, reported and reviewed quarterly to promote accountability, continuous improvement and a forward-looking response to emerging environmental challenges.



Translating Policy Into Management And Implementation

- Environmental Stewardship at GULF explains **how policy, management systems and operational programs translate into measurable environmental performance.**
- **GULF's Board-approved Environmental and Social Management (ESM) Policy** provides the foundation for environmental and social management across the Company and its subsidiaries.
- The policy defines **GULF's environmental commitments and scope** by establishing the coverage, target-setting, monitoring and review mechanisms underpinning the ESM Policy.
- The policy **covers all business facilities, operations and activities throughout the project lifecycle and extends, where possible, across the supply chain** to joint ventures, associates, suppliers, contractors and business partners.
- The policy establishes **governance, monitoring and regular reporting requirements**, while providing the basis for **setting environmental performance targets for priority areas** such as emissions, energy, waste, water and biodiversity.



Environmental and Social Management Policy

Principle
Gulf Development Public Company Limited ("GULF" or the "Company") is committed to conducting business in a sustainable manner to achieve long-term growth while taking into account economic, environmental and social risks and opportunities. The Company has therefore adopted an Environmental and Social Management System (ESMS) Framework as the foundation to its approach to all its operations and activities, in line with national laws and international standards including the Asian Development Bank Safeguard Policy Statement, the Universal Declaration of Human Rights, relevant International Organization for Standards (ISO) standards, or other internationally recognized guidelines, recommendations or standards.

Objective
This policy sets out the principles and guidelines under which all Company employees are expected to operate in order to ensure that the Company is able to achieve long-term growth while upholding its commitment to environmental and social responsibility.

Scope
This policy applies to all members of the Company and its subsidiaries, including members of the Board of Directors, executive management and employees. It covers and shall be applied to all business facilities, operations and activities* undertaken by the Company and its subsidiaries. It also applies, where possible, to the Company's joint ventures and associates, as well as to counterparties including business partners, suppliers, contractors and individuals under the Company's supervision.

Oversight
This Environmental and Social Management Policy has been approved by the Board of Directors. Revisions to the policy shall be advised by the Sustainability, Governance and Risk Management Committee (SGRC), who shall also represent the Board of Directors in providing oversight for the Company's environmental and social performance in line with this policy.

Roles and responsibilities
All employees of the Company are responsible for implementing the policy at the operational and management level as appropriate, including setting targets for environmental and social performance, and providing regular performance reports to the management. The Sustainability Department shall be responsible for coordinating with the relevant functions to monitor performance and provide regular reports to the SGRC. The implementation of this policy shall be regularly evaluated by the Internal Audit Department and data may be verified by a third party as required.

References
GULF Sustainability Policy
GULF Sustainability Framework
Asian Development Bank Safeguard Policy Statement
United Nations Universal Declaration of Human Rights
ISO Standards

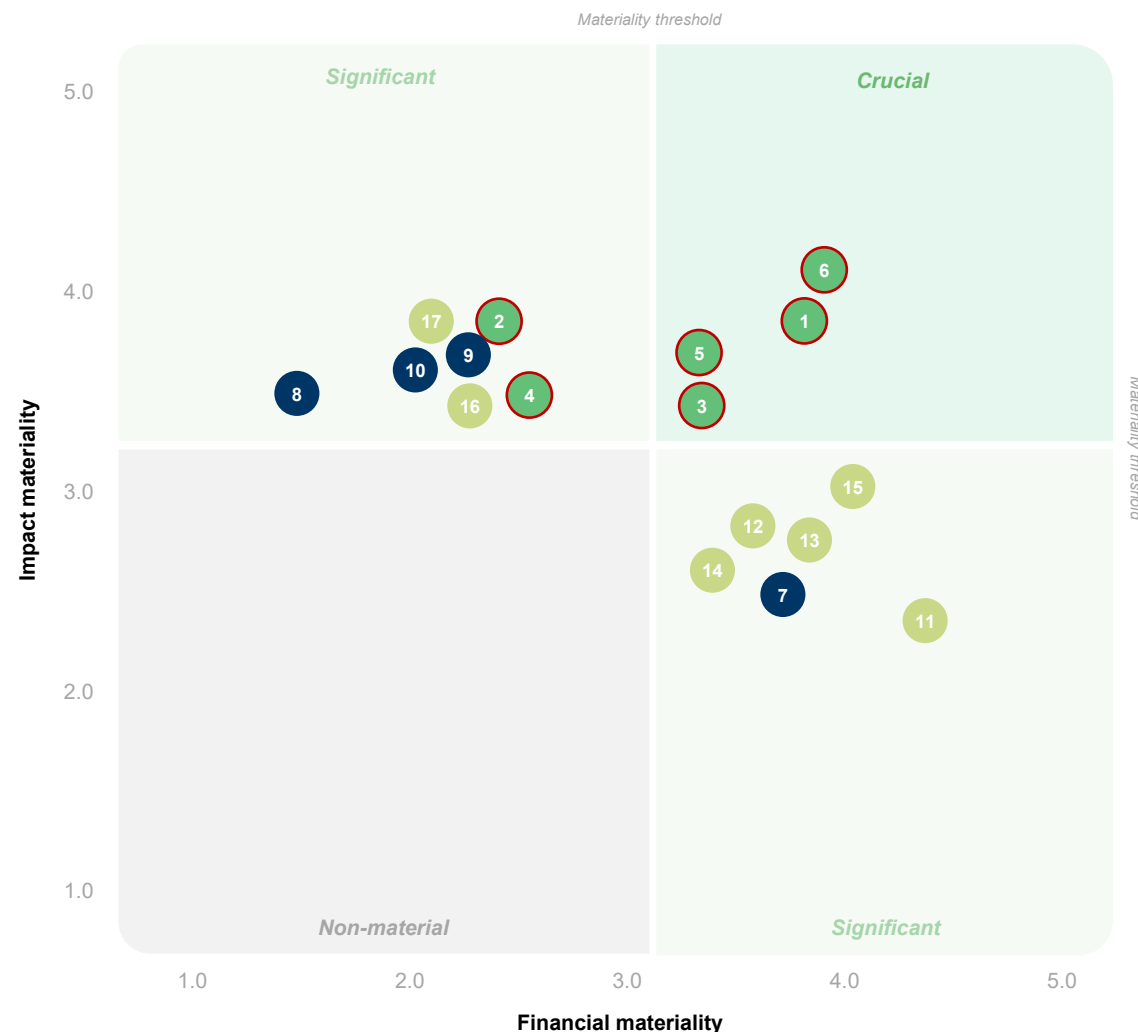
*Key activities include the production of electricity and other products, the provision of services, the transport and/or distribution of such products and services, the management of waste and/or byproducts, managerial and administrative activities, supplier/contractor selection, and project development (including mergers and/or acquisitions), as well as related due diligence activities.

Environmental and Social Management Policy

Approach To GULF's Environmental Stewardship



- Aligned with GRI impact materiality and ESRS double materiality principles, **GULF's environmental management approach is informed by its double materiality assessment**, which identifies and prioritizes topics based on their environmental and social impacts and their financial relevance to the Company.
- Topics assessed as **crucial or significant** are translated into clear policies, responsibilities, targets and action plans, supported by systematic monitoring, reporting and periodic management review.
- A forward-looking assessment of evolving risks, opportunities and stakeholder expectations enables GULF to update its priorities and continually strengthen its ESM.



2025 Environmental Performance At A Glance



ENERGY EFFICIENCY

2.57 GJ/MWh

Target: ≤ 2.85 GJ/MWh

Energy intensity target achieved

Non-renewable energy consumption : 61,361,569 MWh

Renewable energy consumption : 774,148 MWh

Greenhouse Gas (GHG) Emissions

0.436 tCO₂e / MWh

Total GHG emissions intensity

Scope 1 emissions : 12,328,612 tCO₂e

Scope 2 emissions : 35,963 tCO₂e

Scope 3 emissions : 3,442,635 tCO₂e

BIODIVERSITY

0 Sites with significant biodiversity impacts
(20 sites assessed, covering 717 hectares)

Targets:

- No net loss of species in areas with operations
- No business activities in areas with IUCN Red List species

ENVIRONMENTAL MANAGEMENT SYSTEMS VERIFICATION

100 %

Target: 100%

- International standards (ISO 14001) : **75% of all operating sites**
- Internal ESM audit/verification by the Company's own specialists from headquarters : **25% of all operating sites**

0 Cases **0** THB

of significant environmental violations resulting in fines exceeding USD 10,000 per case.

WATER EFFICIENCY

0.75 m³/MWh

Target: ≤ 1.00 m³/MWh

Water intensity target achieved

- Water consumption : 27.17 million m³
- Water consumption in water-stressed areas : 26.81 million m³

WASTE MANAGEMENT

10,624 Tons

Total non-hazardous waste recycled, reused and recovered

Target: zero waste to landfill

- **Zero** operational waste to landfill
- **Zero** hazardous waste to landfill
- **Zero** ash and gypsum waste disposed
- Non-hazardous waste disposed : 169 tons
- Direct mercury emissions : 0.07363 kg

AIR EMISSIONS

Targets achieved
for NO_x, SO_x and dust

- NO_x emissions: 4,197.7 tons (target 4,835 tons)
- SO_x emissions: 147.9 tons (target 708 tons)
- Dust emissions: 146.9 tons (target <740 tons)

Enhancing Energy Efficiency In Operations



- GULF's energy management approach combines **high-efficiency technologies** and digital tools with proactive preventive maintenance to optimize operations, prevent unplanned shutdowns and reduce inefficiencies.
- The Company is taking action to improve efficiency, including **enhancing high-efficiency turbines, optimizing processes, upgrading equipment and incorporating AI and machine learning into predictive maintenance**. It has also appointed a dedicated efficiency team to develop solutions with suppliers, universities and other partners, while continuing to electrify its fleet and daily operations.
- Improving energy management will contribute to **reducing GULF's Scope 1 and Scope 2 greenhouse gas (GHG) emissions**. Improving operational energy efficiency directly reduces energy demand and emissions intensity.
- GULF **conducts annual energy audits** to identify inefficiencies and areas for improvement as part of its energy conservation project, ensuring that business and sustainability targets are not affected.
- **Energy intensity targets are set, with consumption, use of raw materials** being monitored and reported year on year to evaluate performance and support continual improvement.

Energy					
Raw Materials	Units	2022	2023	2024	2025
Total	Tons	2,787,654.51	4,462,191.99	5,159,742.68	4,792,432.77
• Non-renewable	Tons	2,459,517.58	4,128,581.64	4,884,195.91	4,508,756.11
• Natural Gas	Tons	2,286,785.87	4,040,436.20	4,878,687.79	4,505,671.81
• Diesel	Tons	172,731.71	88,145.44	5,508.13	3,084.30
• Renewable	Tons	328,136.92	333,610.35	275,546.77	283,676.66
• Biomass	Tons	328,136.92	333,610.35	275,546.77	283,676.66



Tackling Climate Change



- GULF has a **long-term target of achieving Net Zero** in alignment with Thailand's NDC and global commitments. This involves robust monitoring of emissions and strategic planning to transition towards climate resilience.
- To achieve this, GULF **integrates climate considerations into sustainability governance, enterprise risk management, project development and capital planning.**
- **Board-level oversight** is provided through the Sustainability, Governance and Risk Management Committee, supported by management and the Sustainability Department.
- The Company **has assessed its climate-related risk disclosures in alignment with the International Financial Reporting Standards (IFRS) S2 framework.** GULF discloses material information about climate-related risks and opportunities that could affect its financial prospects. Disclosures cover four pillars: governance, strategy, risk management, and metrics and targets, including GHG emissions, transition plans and climate resilience assessed through scenario analysis.
- GULF is also further **exploring internal carbon pricing (shadow price)** to incorporate potential carbon costs into investment appraisal, budgeting, scenario analysis and asset-level decision-making.
- GULF **prioritizes emissions avoidance and reduction** through renewable-energy growth and operational efficiency. Emerging technologies and high-quality removals may subsequently address harder-to-abate residual emissions.
- In addition, GULF engages with stakeholders, trade associations and government agencies to gather input, collaborate and advocate for transitions throughout the value chain.
- More information on GULF's climate risks and opportunities, climate strategy and adaptation plan reporting can be found in the [GULF IFRS S2 Report](#). GULF has also published its Scope 1, 2 and 3 [Reporting](#) with an [Independent Assurance Statement](#).
- Information on engaging with trade associations with climate alignment can be found in GULF's [Memberships in Trade Associations and Other Organizations report](#).



Carbon Footprint for Organization (CFO) and Carbon Footprint of Product (CFP)



Carbon Footprint for Organization (CFO)

- CFO data collection has been conducted since 2017.
- Covers 100% of Gulf Group companies and GJP (associate) companies.
- Reporting boundary follows the Operational Control approach.
- Reports greenhouse gas emissions from all three scopes arising from the organization's operations.
- Uses TGO (Thailand Greenhouse Gas Management Organization) Emission Factors.
- Data is subject to Limited Assurance with a 5% materiality threshold.



Carbon Footprint of Product (CFP)

- CFP data collection has been conducted for more than 8 years.
- Covers 100% of electricity and steam products from gas-fired power plants and biomass power plants.
- Electricity and steam products is quantified using a life-cycle assessment (LCA) approach, in accordance with ISO 14040 and 14044, the applicable Thailand Greenhouse Gas Management Organization (TGO) methodology and defined product system boundaries.
- CFP labels have been registered for both electricity and steam products.
- In 2026, an additional 9 power plants are planned to obtain CFP certification, subject to approval at the upcoming TGO certification committee meeting scheduled for 21 October 2026.

GULF has conducted Organization Carbon Footprint (CFO) assessments since 2017 and Carbon Footprint of Product (CFP) assessments for electricity and steam products for more than eight years, covering 100% of Gulf Group and GJP companies, as well as products from gas-fired and biomass power plants. The assessments apply life-cycle principles and TGO-approved methodologies to identify and quantify greenhouse gas emissions arising from organizational operations, fuel supply chains, and product life cycles. The results are used to identify significant emission hotspots, support operational efficiency improvements, prioritize greenhouse gas reduction initiatives, and maintain carbon footprint certification for products and operations. Insights from CFO and CFP assessments are also incorporated into sustainability planning, climate-related target setting, and decision-making on future investments and decarbonization opportunities across the Company's energy portfolio.

Promoting Zero Waste To Landfill

- **GULF manages waste in accordance with its internal policies, national regulations and project-level EIA requirements**, with dedicated SHE teams overseeing waste handling, treatment and disposal, and Environmental Impact Committees incorporating stakeholder feedback.
- **Waste is classified as hazardous or non-hazardous** and managed according to a hierarchy that prioritizes reduce, reuse, recycle (3Rs), recovery and safe disposal, reducing disposal volumes and advancing the journey to zero waste to landfill.
- Since 2024, GULF has implemented **a waste-sorting program** across its head office, aligned with the BKK Zero Waste initiative, separating food, recyclable, energy, general, hazardous and electronic waste to prioritize reuse, recycling and recovery. The program also supports employee waste-minimization awareness.
- **Investments in waste-to-energy technologies in collaboration with global engineering firms and project partners** at power plants reduce landfill dependence and create value from the residual waste generated through waste segregation. This waste includes municipal solid waste, organic waste and non-recyclable plastics.
- **Annual waste audits** identify waste hotspots and improvement opportunities, while performance is monitored against targets of zero operational waste to landfill and zero operational waste incineration in Thailand.
- One **improvement opportunity** involves procuring durable High-Efficiency Particulate Air (HEPA) filters. These filters remove small airborne particles, and their higher efficiency supports longer service intervals, reducing the frequency of filter replacements and therefore filter waste.
- GULF's **waste data has been verified against the GRI Topic Standards by an external verifier**, and the Company is currently exploring third-party certification of "Zero waste to landfill" to support its commitment to zero waste to landfill.



Managing Water At GULF

- GULF applies a **four-step water management approach covering water-use assessment, planning, treatment and reduction** throughout the operational lifecycle. This enables each site to identify significant uses, inefficiencies and improvement opportunities. Water use reduction targets are set as a result of the assessment to improve operational efficiency and reduce costs for the business.
- **Water risks are assessed across sites and projects using the Aqueduct tool and the WWF Risk Filter**, regulatory forecasts and site-level monitoring, with findings translated into localized mitigation and water-use plans developed with regulators and communities. More details of the water risk assessment are available in [GULF's Water Risk Assessment Report](#).
- **Measures to safeguard water quality** include improved pretreatment and demineralization systems, onsite chemists, and effluent monitoring and testing against industrial-estate and Royal Irrigation Department (RID) standards. Efficiency measures implemented to reduce water use include recirculating steam-cycle water, increasing cooling-tower cycles, adopting air cooling where feasible and using clarified water produced from reclaimed factory water.
- For **wastewater handling**, onsite chemists monitor treatment and discharge quality and manage the overall pretreatment and demineralization systems.



Safeguarding Biodiversity



- GULF integrates biodiversity considerations throughout the project lifecycle through its **Biodiversity Policy, Environmental and Social Management System (ESMS), environmental impact assessments and site-level Biodiversity Action Plans**. The approach applies the precautionary principle and the mitigation hierarchy from site selection and design through construction, operation and decommissioning.
- The Company's **biodiversity-related assessment and reporting refer to the Taskforce on Nature-related Financial Disclosures (TNFD) recommendations**. The Company plans to adopt the Locate, Evaluate, Assess and Prepare (LEAP) approach as reference frameworks for structuring GULF's biodiversity assessment.
- The **LEAP approach** guides the identification of nature-related interfaces, the evaluation of dependencies and impacts, and the assessment of biodiversity-related risks and opportunities, while supporting the prioritization of management actions and future disclosures.
- More information on biodiversity assessment, management and reporting can be found in GULF's [Biodiversity Assessment Report](#).

Summary of GULF's biodiversity assessment

Assessment Scope	Assessment Activities	2025 Assessment Result
Upstream Value Chain	• Natural gas transmission pipeline • LNG regasification / gas supply	No significant adverse biodiversity impacts identified within the assessed scope
Own Operations & Adjacent Areas 20 sites covering 717.48 ha, including relevant surrounding areas	• Gas-fired power generation • Solar power generation • Wind power generation • Biomass power generation	No significant adverse biodiversity impacts identified within the assessed scope
Downstream Value Chain	• Electricity transmission / substation	No significant adverse biodiversity impacts identified within the assessed scope

Integrating sustainability into operations



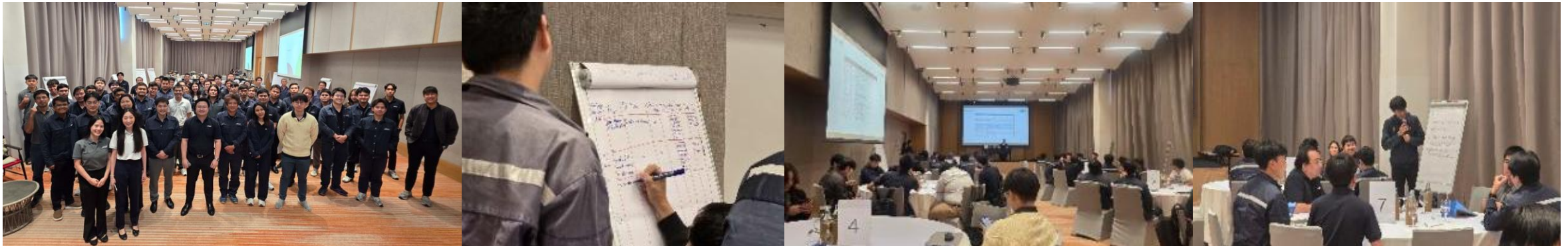
GULF's Sustainability Team, together with the Asset Management Team, organized **technical seminars and workshops for power plant employees to raise awareness of sustainability, the ESG impacts on the business and its stakeholders**, and what power plants can do to support GULF's sustainability goals and value creation for the environment and society.

Technical seminars act as internal training and as a research and development opportunity, where power plants suggest technical solutions that enhance operational performance, including energy savings, process optimization, high-efficiency turbines and waste reduction. Projects assessed as effective and feasible are implemented in operations.

As a result of these sessions, **100 employees were able to identify key ESG topics** that may affect the business and its stakeholders, with suggested programs including **reducing energy consumption at power plants through energy audits, reducing waste generation across the value chain by sourcing durable and effective materials, and improving water use efficiency and water treatment quality**. Key action milestones were identified at site level to ensure that appropriate actions are taken to integrate sustainability measures effectively into GULF's operations.

Sustainability Awareness Training | 22 June and 14 July 2026 | 09.00 – 17.00

Contents: Introduction to Sustainability and ESG at GULF, GULF key ESG topics and why they matter, ESG goals, target setting and action plan



Thank You