

Quantitative ESG Data 2023

The quantitative ESG data for 2023 covers data from operating projects of the Company and its subsidiaries. For some topics, data covers only operating projects in Thailand. In all cases, data coverage is 100% of such projects, unless otherwise indicated. Targets are for 2023 unless otherwise indicated. Additional information can be found in the Company's Annual Report (56-1 One Report), Sustainability Report, Financial Statements, and corporate website.

GULF's business (Economic Dimension)						
Topic	Unit	2020	2021	2022	2023	Target
Financial performance						
Total revenue	M THB	30,343.4	33,370.4	49,983.7	116,950.7	
Total operating expenses	M THB	25,595.2	25,782.1	36,685.4	95,936.9	
▪ Employee expenses ¹	M THB	1,555.9	1,800.6	2,085.0	2,822.4	
Basic earnings per share	THB	0.39	0.65	0.97	1.27	
Electricity generation						
Total installed capacity	MW	1,730.6	3,171.9	4,624.6	5,967.8	
▪ Conventional capacity	MW	1,586.2	2,911.2	4,236.2	5,561.2	
▪ Natural gas-fired	MW	1,586.2	2,911.2	4,236.2	5,561.2	
▪ Renewable capacity	MW	144.4	260.7	388.4	406.6	> 40% by 2035 ²
▪ Solar	MW	119.4	231.7	235.4	253.6	> 2500 ³
▪ Wind	MW	-	4	128	128	> 1,200 ³
▪ Biomass	MW	25	25	25	25	
▪ Other ⁴	MW	-	-	-	-	> 1,500 ³
Total electricity generation	MWh	10,291,828	13,162,988	17,844,187	31,466,827	
▪ Conventional sources	MWh	9,973,215	12,827,034	17,496,609	30,966,724	
▪ Gas-fired generation	MWh	9,973,215	12,827,034	17,496,609	30,966,724	
▪ Renewable sources	MWh	318,613	335,954	347,578	500,103	
▪ Solar	MWh	180,077	161,898	175,250	182,231	
▪ Wind	MWh	-	-	7,399	153,595	
▪ Biomass	MWh	138,536	174,056	172,328	172,312	
▪ Other ⁴	MWh	-	-	-	-	
Customer relationship management						
Customer satisfaction ⁵	%	92.9	93.6	94.0	94.9	90

Notes for Economic Dimension:

¹ Employee wages and benefits.

² Target to increase the proportion of renewable energy capacity to at least 40% of total installed capacity by 2035.

³ Target is for 2030.

⁴ Includes hydropower and waste-to-energy projects (currently under development).

⁵ Average satisfaction score from customers of the Company's natural gas-fired SPPs in Thailand.

Governance Dimension						
Topic	Unit	2020	2021	2022	2023	Target
Corporate governance						
Board of Directors (1-tier system)						
Total	People	11	10	12	12	
▪ Independent directors	People	6	5	7	7	
▪ Executive directors	People	4	4	4	4	
▪ Non-executive directors	People	1	1	1	1	
▪ Proportion of females	%	36	40	33	33	≥ 33
Board meeting attendance ¹	%	91.4	97.7	98.8	94.9	≥ 75 ²
Business ethics						
Written / digital acknowledgement of Codes of Conduct						
▪ Employees	%	100	100	100	100	100
▪ Suppliers ³	%	100	100	100	100	100
▪ Subsidiaries	%	100	100	100	100	100
▪ Joint ventures ⁴	%	100	100	100	100	100
Anti-corruption and bribery						
Number of operations assessed for risks related to corruption or bribery	Operating power projects in Thailand	N/A	14/14	14/14	15/15	
Training on anti-corruption						
▪ Employees	%	100	100	100	100	100
▪ Suppliers	%	2	2	2	2	
▪ Subsidiaries	%	100	100	100	100	
▪ Joint ventures	%	100	100	100	100	
Reporting on breaches						
▪ Corruption / bribery	Cases	0	0	0	0	0
▪ Discrimination / harassment	Cases	0	0	0	0	0
▪ Conflicts of interest	Cases	0	0	0	0	0
▪ Money laundering / insider trading	Cases	0	0	0	0	0
▪ Fraud	Cases	0	0	0	0	0
▪ Customer data privacy	Cases	0	0	0	0	0
▪ Other criminal wrongdoing	Cases	0	0	0	0	0

Governance Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Business ethics (continued)						
Fines resulting from legal / ethical violations						
▪ Misconduct	THB	0	0	0	0	0
▪ Corruption / bribery	THB	0	0	0	0	0
▪ Environmental violations	THB	0	0	0	0	0
▪ Social violations	THB	0	0	0	0	0
Policy influence						
Contributions and other spending						
Total	THB	29,318	45,368	56,068	56,068	
▪ Trade associations	THB	29,318	45,368	56,068	56,068	
▪ Political parties / lobbying interests	THB	0	0	0	0	
▪ Other spending ⁵	THB	0	0	0	0	
Supply chain management						
KPIs for supplier screening						
Tier-1 suppliers (total)	Suppliers	1,908	1,908	1,179	1,901	
▪ Significant suppliers	Suppliers	17	17	13	13	
▪ % of total spend on significant suppliers	%	92	92	97	97	
Significant non-tier 1	Suppliers	2	2	2	2	
KPIs for supplier assessment and development						
Suppliers assessed via desk / on-site assessments ⁶	Suppliers	1,908	1,908	1,179	1,901	
▪ % of significant suppliers assessed	%	100	100	100	100	
▪ Suppliers with substantial impacts ⁷	Suppliers	0	0	0	0	
▪ Suppliers with agreed corrective action plans	Suppliers	N/A	N/A	N/A	N/A	
▪ Suppliers terminated for negative impacts	Suppliers	N/A	N/A	N/A	N/A	
▪ Suppliers in capacity-building programs	Suppliers	N/A	N/A	N/A	40	
New suppliers						
Written acknowledgement of Supplier Code of Conduct	% of new suppliers	100	100	100	100	100
New suppliers screened using environmental criteria	% of new suppliers	100	100	100	100	100
New suppliers screened using social criteria	% of new suppliers	100	100	100	100	100

Governance Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Information security / cybersecurity						
Process and infrastructure						
IT infrastructure certified ⁸	%	100	100	100	100	100
Security breaches	Cases	0	0	0	0	0
Employees receiving information security / cybersecurity training	% of employees	100	100	100	100	100

Notes for Governance Dimension:

- ¹ Average for all directors for 2023 (total 13 meetings).
- ² Minimum Board meeting attendance requirement.
- ³ Includes suppliers, contractors, and other third parties providing goods and services.
- ⁴ Includes joint ventures and associates.
- ⁵ Such as ballot measures or referendums.
- ⁶ Assessments are conducted for all new suppliers and at least once every 3 years for current suppliers.
- ⁷ Substantial negative financial, reputational or sustainability-related impacts.
- ⁸ Certified to ISO 27001 and/or NIST standards.

Social Dimension						
Topic	Unit	2020	2021	2022	2023	Target
Labor practice indicators						
Workforce breakdown by number of employees						
Total	People	886	919	1,074	1,168	
▪ Males	People	611	633	741	779	
▪ Proportion of males	%	69.0	68.9	69.0	66.7	
▪ Females	People	275	286	333	389	
▪ Proportion of females	%	31.0	31.1	31.0	33.3	≥ 30
Workforce breakdown by type of contract						
Permanent	People	825	872	1,004	1,130	
Contract	People	61	47	70	38	
Workforce breakdown by function						
Energy business	People	68	81	134	177	
Power projects	People	478	477	534	548	
Other businesses and investments	People	22	25	40	42	
Management and secretaries	People	13	19	12	20	
Support functions	People	305	317	354	381	
Workforce breakdown by age						
Below 30 years	People	312	283	332	360	
30 – 49 years	People	518	569	662	735	
50 years and over	People	56	67	80	73	
Workforce breakdown by nationality						
Thai						
▪ % of total workforce	%	99.8	99.8	99.7	99.8	
▪ % of management	%	100	99.7	99.4	99.7	
Vietnamese						
▪ % of total workforce	%	0.2	0.2	0.2	0.1	
▪ % of management	%	0	0.3	0.3	0	
Other						
▪ % of total workforce	%	0	0	0.1	0.1	
▪ % of management	%	0	0	0.3	0.3	

Social Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Labor practice indicators (continued)						
Workforce breakdown by position						
Top management	People	17	20	19	20	
▪ Males	People	10	12	12	13	
▪ Proportion of males	%	58.8	60.0	63.2	65.0	
▪ Females	People	7	8	7	7	
▪ Proportion of females	%	41.2	40.0	36.8	35.0	
Middle management	People	78	103	115	112	
▪ Males	People	54	66	74	67	
▪ Proportion of males	%	69.2	64.1	60.9	59.8	
▪ Females	People	24	37	45	45	
▪ Proportion of females	%	30.8	35.9	39.1	40.2	
Junior management	People	157	166	200	236	
▪ Males	People	87	94	110	138	
▪ Proportion of males	%	55.4	56.6	55.0	58.5	
▪ Females	People	70	72	90	98	
▪ Proportion of females	%	44.6	43.4	45.0	41.5	
Non-management	People	634	630	740	800	
▪ Males	People	460	461	549	561	
▪ Proportion of males	%	72.6	73.2	74.2	70.1	
▪ Females	People	174	169	191	239	
▪ Proportion of females	%	27.4	26.8	25.8	29.9	
Share of women						
Proportion of females in all management positions	%	40.1	40.5	42.5	40.8	≥ 40 by 2025
Proportion of females in management positions in revenue-generating functions	%	33.3	30.1	31.2	40.9	
Proportion of females in STEM-related positions	%	-	5.0	9.6	31.6	
People with disabilities						
Employees with disabilities ¹	People	N/A	N/A	N/A	N/A	

Social Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Labor practice indicators (continued)						
Gender pay indicators (average female pay : average male pay) ²						
All employees (base salary)		-	0.93:1	0.93:1	1.16:1	≤ 10%
Top management						
▪ Base salary only		-	0.79:1	0.79:1	0.84:1	
▪ Base salary and other cash incentives		-	0.95:1	0.95:1	0.95:1	≤ 10%
Other management						
▪ Base salary only		-	0.95:1	0.95:1	0.88:1	
▪ Base salary and other cash incentives		-	1.03:1	1.03:1	0.90:1	≤ 10%
Non-management (base salary)		-	0.92:1	0.92:1	0.88:1	≤ 10%
Human rights and labor rights						
Freedom of association / collective bargaining						
Employees represented by trade unions or collective bargaining agreements ³	%	100	100	100	100	
Operations or suppliers in which freedom of association / collective bargaining may be at risk	Operations / suppliers	0	0	0	0	
Other human and labor rights						
Operations or suppliers at significant risk of child labor	Operations / suppliers	0	0	0	0	0
Operations or suppliers at significant risk of forced or compulsory labor	Operations / suppliers	0	0	0	0	0
Incidents of violations involving rights of indigenous peoples	Incidents	0	0	0	0	0
Incidents of discrimination or harassment	Incidents	0	0	0	0	0
Occupational health and safety (OHS)						
Fatalities						
▪ Employees	Cases	0	0	0	0	0
▪ Contractors	Cases	0	0	0	0	0
Lost-time injury frequency rate (LTIFR per million hours worked)						
▪ Employees	LTIFR	0	0	0	0.50	0
▪ Contractors	LTIFR	0	0	0	0	0
Workers ⁴ covered by an OHS system	%	100	100	100	100	100

Social Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Human capital development						
Training and development inputs						
Average hours of training	Hours / FTE ⁵	39.2	30.0	58.6	35.8	≥ 35
Breakdown by type						
▪ Legal and compliance	Hours / FTE	5.4	3.4	4.1	5.0	
▪ Technical / operational	Hours / FTE	45.5	24.6	27.9	23.2	
▪ Leadership / management	Hours / FTE	13.0	1.9	2.1	5.0	
▪ Supplementary	Hours / FTE	7.0	13.1	20.4	2.6	
Breakdown by gender						
▪ Males	Hours / FTE	46.4	37.7	62.6	26.7	
▪ Females	Hours / FTE	22.8	12.4	16.2	24.7	
Breakdown by position						
▪ Top management	Hours / FTE	3.7	2.1	3.5	19.2	
▪ Middle management	Hours / FTE	26.3	9.6	12.5	22.6	
▪ Junior management	Hours / FTE	42.2	24.4	26.2	30.6	
▪ Non-management	Hours / FTE	40.1	35.2	55.3	54.3	
Average amount spent on training and development per FTE	THB	6,795	5,190	4,473	10,927	
Human capital return on investment (HC ROI)						
HC ROI ⁶		7.46	9.99	12.38	8.45	
Talent attraction and retention						
Hiring ⁷						
Total new employee hires	People	62	72	187	231	
Open positions filled by internal candidates	%	83	76	39	33	
Average hiring cost per FTE	THB	12,500	19,000	41,229	14,200	
Employee turnover rate ⁸						
Total turnover ⁹	%	6.9	5.2	7.8	8.4	
Voluntary turnover	%	5.4	4.7	7.3	7.2	< 7.5
Trend of employee well-being ¹⁰						
Employee engagement	%	81	-	77	-	80
Employee satisfaction	%	91	-	88	-	90

Notes for Social Dimension:

- ¹ Due to the nature of the Company's work (project construction and operations), it is not safe for people with disabilities. However, the Company contributes to the Fund for the Empowerment of Disabled Persons annually.
- ² The comparisons show average female pay to average male pay. The Company has an equal pay for equal work policy. However, some pay variations may arise due to differences in employee qualifications or experience.
- ³ Employees' collective bargaining rights are covered under the Company's Welfare Committee which covers all employees of the Company and its subsidiaries, and comprises employee representatives who negotiate with Management on behalf of employees to ensure their well-being.
- ⁴ Workers includes both the Company's employees (including employees of subsidiaries) as well as contractors.
- ⁵ Calculated as average hours per full-time employee per year.
- ⁶ Human capital return on investment (HC ROI) = (Total revenue – (Total operating expenses – Total employee-related expenses)) / Total employee-related expenses
- ⁷ Details regarding hiring, including additional data breakdowns, can be found on the Company's website. In 2022 and 2023, a lower proportion of open positions were filled by internal hires as a significant number of new positions were opened due to the Company's business expansion.
- ⁸ Details regarding turnover, including additional data breakdowns, can be found on the Company's website.
- ⁹ Total turnover includes involuntary turnover such as retirements and medical causes. The Company has not laid off any employees.
- ¹⁰ Employee engagement and satisfaction surveys are conducted every two years. Additional details about the survey process can be found on the Company's sustainability website.

Environmental Dimension						
Topic	Unit	2020	2021	2022	2023	Target
Environmental policy and management systems						
Environmental management system (EMS): certification / audit / verification						
Total	% ¹	100	100	100	100	
▪ Verified through international standards ²	%	100	100	92.9	93.3	100 by 2025
▪ Third-party verification	%	0	0	0	0	
▪ Internal certification / audit ³	%	0	0	7.1	6.7	
Energy						
Energy consumption						
Total	MWh	19,902,512	26,054,164	33,604,481	57,160,021	
▪ Non-renewable	MWh	18,946,170	24,863,265	32,286,749	55,821,715	
▪ Renewable	MWh	956,342	1,190,899	1,317,732	1,338,306	
Energy intensity	GJ/MWh	3.30	3.51	3.18	2.96	≤ 3.00
Waste and pollutants						
Waste disposal						
Total waste generated	Tonnes	3,164	28,016	38,122	89,722	
▪ Non-hazardous waste	Tonnes	3,073	27,874	38,003	89,695	
▪ Hazardous waste	Tonnes	91	142	119	27	
Non-hazardous waste						
▪ Total non-hazardous waste recycled / reused	Tonnes	20	5	144	4	
▪ Total non-hazardous waste recovered ⁴	Tonnes	78	186	10,227	89,664	
▪ Total non-hazardous waste stored on site	Tonnes	2,939	27,659	27,600	0	
▪ Total non-hazardous waste disposed	Tonnes	37	24	32	26	
▪ Landfilled	Tonnes	0	0	0	0	0
▪ Incinerated with energy recovery	Tonnes	37	24	32	26	
▪ Incinerated without energy recovery	Tonnes	0	0	0	0	0
▪ Otherwise disposed	Tonnes	0	0	0	0	
▪ Unknown disposal method	Tonnes	0	0	0	0	
Ash and gypsum waste ⁵						
Total waste recycled / reused	Tonnes	0	16	5,796	12,018	
Total waste disposed	Tonnes	0	0	0	0	

Environmental Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Waste and pollutants (continued)						
Hazardous waste						
Total waste generated	Tonnes	91	142	119	27	
Total waste recycled / reused	Tonnes	6	22	6	1	
Waste stored on site	Tonnes	65	79	61	0	
Total waste disposed	Tonnes	20	40	53	26	
▪ Landfilled	Tonnes	0	0	0	0	0
▪ Incinerated with energy recovery	Tonnes	20	40	53	26	
▪ Incinerated without energy recovery	Tonnes	0	0	0	0	0
▪ Otherwise disposed	Tonnes	0	0	0	0	
▪ Unknown disposal method	Tonnes	0	0	0	0	
NOx emissions						
Direct NOx emissions	Tonnes	1,657.2	1,856.0	2,315.9	4,109.9	< 5,866.0
SOx emissions						
Direct SOx emissions	Tonnes	119.3	178.4	119.2	259.8	< 1,134.0
Direct mercury emissions ⁶						
Direct mercury emissions	Tonnes	N/A	N/A	N/A	N/A	
Dust emissions						
Direct dust emissions	Tonnes	77.6	130.5	149.0	355.6	< 1,065.0
Water						
Water consumption						
Total water withdrawal	Mil. m ³	9.88	13.71	18.59	29.79	
▪ Third-party sources ⁷	Mil. m ³	9.14	12.74	17.81	28.79	
▪ Produced water	Mil. m ³	0	0	0	0	
▪ Fresh surface water	Mil. m ³	0.74	0.97	0.78	1.00	
▪ Fresh groundwater	Mil. m ³	0	0	0	0	
Total water discharged	Mil. m ³	1.55	2.92	3.16	5.11	
▪ Returned to municipal / other treatment system	Mil. m ³	1.11	2.24	2.66	4.71	
▪ Returned to the source of extraction	Mil. m ³	0.44	0.68	0.50	0.40	
Total water consumption ⁸	Mil. m ³	8.33	10.79	15.43	24.68	
Water intensity	m ³ / MWh	1.84	2.01	2.04	1.87	≤ 1.95

Environmental Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Water (continued)						
Water consumption in water-stressed areas						
Operations in water-stressed areas ⁹	Projects	13	14	14	15	
Total water consumption ¹⁰	Mil. m ³	8.33	10.79	15.43	24.68	
Climate strategy						
Greenhouse gas (GHG) emissions						
Total GHG emissions	Tonnes	3,944,773	5,109,713	8,791,140	14,624,745	Net Zero by 2050
Total emissions intensity	tCO ₂ e / MWh	0.401	0.406	0.495	0.469	
Direct emissions (scope 1)	Tonnes	3,931,649	5,094,990	6,651,222	11,245,262	
Total scope 1 intensity	tCO ₂ e / MWh	0.400	0.405	0.375	0.359	Reduce by 25% by 2030
Indirect emissions (scope 2) ¹¹	Tonnes	10,762	10,782	53,794	23,547	
Total scope 2 intensity	tCO ₂ e / MWh	0.001	0.001	0.003	0.001	
Other indirect emissions (scope 3) ¹²	Tonnes	2,363	3,941	2,086,124	3,355,936	
Total scope 3 intensity	tCO ₂ e / MWh	0.000	0.000	0.118	0.108	
SF ₆ emissions	Tonnes	0.013	1.178	0.007	30,362 ¹³	
Product stewardship						
Electricity transmission and distribution losses ¹⁴						
Transmission losses	%	0.49	0.53	0.51	0.66	
Distribution losses	%	N/A	N/A	N/A	N/A	
Electricity transmission and distribution reliability						
SAIDI (transmission network)	Hours	8	6	5	3	
Gas leakage rate ¹⁵						
Transportation leakages	%	0.0019	0.0087	0.0071		
Distribution leakages	%	N/A	N/A	N/A	N/A	
Storage leakages	%	N/A	N/A	N/A	N/A	
Efficiency of generation and availability factor ¹⁶						
Efficiency open- / combined-cycle gas plants	BTU / kWh	7,424	7,161	7,389	6,762	
Availability factor (gas plants)	%	97.9	98.1	95.0	97.2	

Environmental Dimension (continued)						
Topic	Unit	2020	2021	2022	2023	Target
Biodiversity						
Biodiversity exposure and assessment						
Total number of sites ¹⁷	Sites	13	14	14	15	
Total area	Hectares	73.8	146.0	146.0	223.2	
% of sites assessed for biodiversity impacts	%	100	100	100	100	
Sites with significant biodiversity impact	Sites	0	0	0	0	
<ul style="list-style-type: none"> ▪ Sites with biodiversity management plans¹⁸ 	Sites	N/A	N/A	N/A	N/A	

Notes for Environmental Dimension:

¹ Percentage of power projects in Thailand which have achieved commercial operation for at least one year.

² ISO 14001.

³ Regular on-site Environmental and Social Management System (ESMS) audit by the Company's safety, health and environment (SHE) team.

⁴ Recovery refers to methods that transform the waste into usable products, allowing some of the energy or other benefits to be recovered and utilized. Methods include composting, land reclamation and soil quality improvement.

⁵ The Company does not generate gypsum waste. Ash is generated from the Company's biomass power projects and is counted as part of the Company's total waste generation.

⁶ The Company does not generate direct mercury emissions.

⁷ Third-party sources include purchasing raw and reclaimed water from industrial estates or water suppliers.

⁸ Total water consumption (also called total net freshwater consumption) = Total withdrawals – total discharge.

⁹ Water-stress is defined as demand equal to 40% - 80% of water availability.

¹⁰ In 2023, the Company switched to using only the WRI Aqueduct Water Risk Atlas tool as it was deemed to provide more accurate data, resulting in all operating projects being located in water-stressed areas.

¹¹ Location-based assessment.

¹² In 2022, the Company changed the way it calculated scope 3 data to include category 3 (fuel- and energy-related activities not included in scope 1), thus resulting in a significant increase in scope 3 and total GHG emissions. A breakdown of the scope 3 data collected can be found on the Company's sustainability website.

¹³ In 2023, the Company upgraded equipment after finding potential manufacturing defects. The upgrades required venting of SF₆ which is used as an insulator for electrical equipment.

¹⁴ The Company does not operate in electricity distribution. Loss and reliability data is for its transmission network only.

¹⁵ The Company does not have gas distribution or storage assets. Gas leakage calculated from vent and fugitive leaks.

¹⁶ Calculated from operating power projects in Thailand. Average age of plants: 4.24 years.

¹⁷ Covers only operating power projects in Thailand.

¹⁸ The Company has developed biodiversity management plans for all sites, as part of the Environmental Impact Assessment process conducted at each site. The existence of such plans should not be taken to mean any site has significant biodiversity impact.