REPORT 2019 SUSTAINABLE CLEAN ENERGY SUPPLIER RELIABLE, SUSTAINABLE CLEAN ENERGY SUPPLIER Oatargas is a fully integrated LNG company with a value chain that runs from the



ABOUT THIS REPORT

GRI 102-46, GRI 102-48, GRI 102-49, GRI 102-50, GRI 102-51, GRI 102-52

We are proud to present the ninth public sustainability report to our stakeholders. Our sustainability report discusses our corporate sustainability strategy, challenges and achievements. It highlights the impacts of our operations on Qatar's economic development, environment and society. By providing a clear and transparent picture of where we are today and where we aspire to be in the future with regards to our sustainability journey, this report aims to communicate and engage with all our stakeholders.

The Qatargas 2019 Sustainability Report covers the sustainability performance of Qatargas for the reporting period from 1 January 2019 to 31 December 2019. The scope of the report are all Qatargas frameworks, procedures, processes and initiatives that are in place to drive sustainability. The reporting boundary is all Qatargas operations under our direct control within the State of Qatar.

This report has been prepared in accordance with the GRI Standards: Core option. The Global Reporting Initiative (GRI) is an independent international organisation that has pioneered sustainability reporting since 1997. It helps businesses worldwide understand and communicate their impact on critical sustainability issues such as climate change, human rights, governance and social well-being. This enables real action to create social, environmental and economic benefits for everyone. The GRI Sustainability Reporting Standards are developed with true multi-stakeholder contributions and rooted in the public interest.

The Global Reporting Initiative (GRI) reporting principles were used in this report to define and ensure report content and quality. We have also used the GRI Oil and Gas sector supplement to report our performance on relevant topics that are currently and potentially material to Qatargas. In preparation of this report, we were faced with a wide range of topics on which to report. Relevant topics that have merited inclusion in the Qatargas 2019 Sustainability Report are those that are reasonably considered important for reflecting Qatargas' economic, environmental and social impacts. These material topics also influence the decisions of our stakeholders that have been identified in this report, along with their expectations and interests. For detailed information on the materiality and reporting process, please refer to page 17.

In addition to the GRI Standards, we have also referred to other frameworks such as the United Nations Sustainable

©All Rights Reserved

Development Goals (UN SDGs), the Qatar National Vision 2030 and the International Petroleum Industry Environmental Conservation Association (IPIECA) guidelines to ensure compatibility and completeness.

This report has successfully completed the GRI Materiality Disclosures service which is available at the end of this report. Please refer to the GRI Index on page 99 for full details.

At Qatargas, we strive for continuous improvement with respect to our sustainability performance. We are committed to building on our sustainability reporting system in the future by capturing a broader data spectrum that further reflects our stakeholders' needs and expectations. This report will enable enhanced engagement with all our stakeholders. Therefore, we invite stakeholders to share their feedback on the contents of this report and Qatargas' sustainability performance at the following email address: media@qatargas.com.ga.



CONTENTS

SUSTAINABILITY AT QATARGAS

2019 Performance Highlights	6
2019 Awards	7
Message from the CEO	8
Sustainability at Qatargas	10
Qatargas Value Chain	14
 Stakeholder engagement 	16
• Materiality	16
GOVERNANCE AND RISK MANAGEMENT	20
Operating Structure	21
Qatargas Management System	22
Enterprise Risk Management and	
Business Continuity	22
ECONOMIC PERFORMANCE	24
Managing LNG Market Dynamics	26
Efficiency and Reliability of Operations	28
Customer Satisfaction and	
Product Responsibility	28
Contribution to National Economic	
Development	29
ENVIRONMENTAL PERFORMANCE	33
Environmental Leadership	34
Energy	37
Greenhouse Gas (GHG)	37
Flaring	39
Air Emissions	41
Water and Wastewater Management	42
Waste Management	43
Biodiversity	46

48
50
54
57
59
61
62
65
67
67
70
71
74
78
80
81
83
87
90
91
92
95
99
100
107

INTRODUCTION TO QATARGAS AND SUSTAINABILITY



2019 PERFORMANCE HIGHLIGHTS



Safety

VESSELS

2019 AWARDS

In December 2019, Qatargas was certified the new ISO 45001 (Occupational Health & Safety) standard, being one of the few companies in the oil and gas sector to receive this certification. In addition, Qatargas has been recertified with ISO 9001 (Quality Management Systems), ISO 14001 (Environment Management Systems) and ISO 28000 (Security Management Systems) standards. The certificates were awarded by the British Ambassador to Qatar, Ajay Sharma, to Qatargas' Chief Health, Safety, Environment & Quality (HSEQ) Officer, Khalid Al-Hemaidi, in a ceremony at Qatargas headquarters in

This achievement demonstrates our commitment to the Company's Direction Statement which actively promotes the effective management of Safety, Health,

In May 2019, Qatargas was awarded the Qatarization Certificate by the Minister of State for Energy Affairs, His Excellency Mr. Saad Sherida Al-Kaabi. The prestigious award was presented at the Annual Qatarization Review Meeting of the Energy and Industry sector in Qatar. It was awarded in recognition of Qatargas' valued "Support and Liaison with the Education Sector" during 2018. Qatargas contributed to the education sector by hosting extensive activities and programs, including internships, partnerships with the education community, outreach campaigns and other initiatives.

In recognition of its commitment to safety management and environmental management excellence, for the fifth consecutive year, Qatargas' Commercial and Shipping Group was awarded the prestigious Sword of Honour and Globe of Honour by the British Safety Council. In the presence of Khalid bin Khalifa Al Thani, Qatargas Chief Executive Officer, Abdurrahman Al Mulla, Qatargas Shipping Manager, received the awards at a ceremony held recently in London, the United Kingdom. Qatargas is one of ten organisations worldwide that won the 'double' by being awarded both the Sword of Honour and Globe of

On 12 May 2019, Qatargas reached a historic milestone when the Q-Flex type LNG vessel named "Al Safliya" transited the Panama Canal as the largest LNG vessel by cargo capacity. The "Al Safliya" has a cargo carrying capacity of 210,000 m3 of LNG with a length and breadth of 315 m and 50 m, respectively. It successfully completed the 82 km transit according to plan and received accolades from His Excellency Mr. Saad Sherida Al-Kaabi, Minister of State for Energy Affairs. This achievement followed months of careful planning by Qatargas, the vessel operator, Pronav Ship Management Gmbh, and Panama

Qatargas' LNG transportation vessels adhere to the global standard set by the Green Award to ensure that fleets ensure minimal environmental impact. All 70 long-term chartered LNG transportation vessels acquired the Green Award Certification after passing a meticulous procedure, including an audit of Qatargas' long-term vessels' operators as well as reviews and surveys of each vessel.

MESSAGE FROM THE CEO



I am delighted to present to you the Qatargas 2019 Sustainability Report which provides a comprehensive overview of our performance as a Company and how we endeavor to incorporate sustainability and its principles through our operations and business. This report introduces Qatargas and presents our sustainability performance while we execute our purpose and vision. It provides valuable insights into the market and international trends pertaining to our sustainability performance. The report emphasises the most material topics that reflect Qatargas' significant economic, environmental, and social impacts, or that substantively influence the assessments and decisions of our stakeholders.

In 2019, natural gas continued to play an important role in creating an economically and environmentally sustainable energy future for the State of Qatar and the world. Qatar played a significant role in contributing to the increasing global LNG trade in 2019, ensuring that this is the sixth year of consecutive growth in global LNG trade. As a country, we managed to maintain our position as the largest exporter of LNG in the world, having sold 78.6 MT of LNG in 2019. Qatargas is the key LNG player in Qatar and we have assisted the state with its LNG expansion plan by progressing towards Final Investment Decision (FID) and capacity additions to re-position Qatar as the market with the largest liquefaction capacity globally. In terms of LNG interregional trade, the third largest trade flow globally was from the Middle East to Asia, with most of those supplies exported from Qatar. We also had significant trade flows to the Asia Pacific.

At Qatargas, as we developed our growth and expansion plans in 2019, we took measures significant for our long-term future and guided by our commitment to sustainability. We demonstrate this by our multiple new partnerships and two significant new Sale & Purchase Agreements (SPA) signed in 2019 to fuel our growth and provide our customers with the energy they need to displace more carbon-intensive fuels. These partnerships and SPAs were enabled by our customers' acknowledgement of high-quality service and flawless execution of our contracts resulting in superior customer satisfaction.

Our vision is to remain the World's Premier LNG Company, and our mission includes our commitment to protecting our people, assets and the environment. Subsequently, our corporate pillars and values ensure the sustainable achievement of our vision, enabled in particular by our emphasis on agility, reputation, quality and flawless execution. Additionally, embedding sustainability in achieving our vision and mission assists us in progressing towards fulfilling the Qatar National Vision 2030 and leading the industry by example.

Safety is our first priority and we have invested considerable efforts in developing the capabilities and awareness of our people to manage occupational risks. In 2019, we reviewed and upgraded all our safety training programmes and methods and delivered over 20 different trainings on various safety topics to our employees and stakeholders. Consequently, this has resulted in improved safety performance with a major reduction in occupational health and safety high potential events and contractors LTIs, compared to the previous year. Additionally, we experienced a substantial reduction of heat stress events for contractors in 2019, thanks to the increased focus on training and upskilling our contractors. Overall, we delivered outstanding safety performance that will be crucial to maintain as our focus while we move ahead with our expansion plans.

As a leading provider of clean energy - Liquefied Natural Gas (LNG) - to our customers with a global reach and footprint, we realise our leadership role in driving environmental protection and stewardship. In line with the Qatar National Vision (QNV) 2030 goals and objectives, we have invested significantly in a range of environmental mitigation and improvement initiatives to reduce our environmental footprint. We reduced our onshore flaring by 17% and our Greenhouse Gas (GHG) emissions by 4% compared with the previous year, which amounts to total reductions of 76% in flaring and 12% in GHG emissions since 2011 and 2012, respectively. Our dedicated CO2 sequestration facility commenced operations in February 2019 with a total injection capacity of 2.2 million tonnes of CO2 and we have plans to increase our total CO2 sequestration capacity to 5 million tonnes of CO2 by 2025. We also commissioned our Treated Industrial and Process Water (TIPW) facility which is one of a series of advanced wastewater treatment projects which will help Qatargas reuse and recycle over 70% of our wastewater. Our new Waste Materials Management Facility (WMMF) commenced operations in 2019 and our waste recycling significantly enhanced to 39% of total waste generated with implementation of major recycling partnerships with local SMEs. As a major biodiversity initiative, Qatargas was proud to partner with the Ministry of Municipality and Environment (MME) to install 200 artificial coral reef modules off Banana Island in Qatar. For the sixth consecutive year, our chartered fleet also received the Globe of Honour from the British Safety Council, recognising its world-class performance in health, safety and environmental management.

Along with our economic and environmental sustainability, we are focused on caring for our people and community. Our gold accreditation of the We Invest in People is a testament to our continued efforts in leading, supporting and developing our workforce. In 2019, we launched an Employee Opinion Survey which offers all our employees the opportunity to provide confidential feedback on their experience of working at Qatargas. We are gratified to state that Qatargas employees are overwhelmingly proud to work for the Company. We are also very pleased to state that we continue to drive our Qatarisation initiative through multiple programmes such as Hayyakum Outreach Plan, Individual Development Programme and Technical Certificate Programme. During the reporting period, Qatari nationals represented a full third of the company's workforce. As for our commitment to our local communities, we invested in local communities through our Ras Laffan Industrial City Community Outreach Programme (COP) and Qatargas Social Investment Programmes (SIP).

In conclusion, with our excellent and promising sustainability performance in 2019, we have continued to maintain our strong position as the World's Premier LNG Company. The Qatargas 2019 Sustainability Report is a testament to our ongoing commitment to sustainability while reporting how our operations contribute to achieving our vision and mission. Our sustainability performance has been enabled by quality and flawless execution, agility and a reputation for maintaining the highest standards in the LNG industry. This report includes our activities and their impact on the economy, environment and society for all our stakeholders and the general public. With this report, we present our initiatives to reach the ultimate goal of sustainable development and our key role in its achievement as a major LNG global player.

Khalid bin Khalifa Al-Thani CEO, Qatargas

SUSTAINABILITY AT QATARGAS

Global sustained macroeconomic trends and forces of development shape our world and impact business, the economy, environment and society. These global trends - known as megatrends can be classified under technological advancements, demographic shifts, urbanisation, global economic power shifts and climate change and resource scarcity.

GLOBAL SUSTAINABILITY CONTEXT AT QATARGAS



At Qatargas, we cognise the significance of megatrends and the importance of acting decisively to capture opportunities and mitigate risks created by these forces. We realise that megatrends can either disrupt our operations and pose serious risks if overlooked or generate significant opportunities and ensure value creation if addressed rightfully through adjustments and refinements of business strategies.

Hence, in the reporting period, we adopted an annual strategic planning cycle with a rigorous process to update our strategic plan for the next five years.

We conducted a series of interviews with our executives and major shareholders to identify and collect their insights around our performance and position in the industry. The feedback from Qatargas' executives, and shareholders were later analysed to create the SWOT analysis, which recognised our current strengths, weaknesses, opportunities, and potential threats that could affect our performance in the next five years. Opportunities to increase the value to shareholders and the State of Qatar's economy, environment commitments, regulations, and social responsibility were discussed in depth through an offsite meeting with Management Leadership Team (MLT). Our performance trends, market outlook, and company risks were also reviewed and analysed during this meeting. As a result, we developed Qatargas Strategic Plan 2019. We have also collected the internal performance insights from our key managers and leaders in a series of situation analysis workshops. These were also part of the offsite meeting discussion that helped in understanding the opportunities that Qatargas has from an internal perspective. The Qatargas Strategic Plan defines the strategic goals, objectives, KPIs and initiatives at Qatargas.

Additionally, one of the major highlights in 2019 is the rollout of the Qatargas Direction Statement, which sets our Company's Vision, Mission, Values and Pillars, and defines who we are, what we prioritise, how we work with one another and how we do our business.A detailed roll-out phase began after the final sign-off on the new Direction Statement, with a series of workshops designed to engage every Qatargas employee. The first group of workshops was conducted by our MLT over four weeks and was directed towards our 600 Qatargas leaders to familiarise them with the new Direction Statement and guide them in supporting their employees to adopt it in their practices and activities. Subsequently, the second group of workshops was launched by the Direction Statement Champions whom delivered workshops to Qatargas leaders and employees over a period of six months. These workshops aimed to internalise the new Direction Statement and create objectives, targets, KPIs and initiatives on departmental and divisional levels.

After all the workshops were concluded, we conducted feedback surveys with participants to measure the effectiveness of the sustain phase. We are proud to mention that as many as 99.5% of respondents agreed that the workshops had exceeded their expectations.



Currently, new employees are familiarised with our New Direction Statement as part of their induction to Qatargas.





VISION

THE WORLD'S PREMIER LNG COMPANY

MISSION

Qatargas provides quality LNG and other hydrocarbon products to the global market. We proudly and safely operate and maintain our facilities to Premier standard and we are actively developing new facilities on behalf of our Shareholders to sustain and expand our capacity.

Qatargas protects its people, assets and the environment. **Our Shareholders see** consistently high value and return. We are proud to be known as a major contributor to the fulfilment of The Qatar 2030 Vision and the nation's future.



VALUES

PILLARS

We embrace Incident and Injury-Free

We care for and value people and process safety above all else and demonstrate it in our commitments and actions

We strive for Premier Performance

We focus on Quality in everything we do; we seek to innovate, optimize business & financial performance and ensure continuous improvement; we always put the greater interest of the Company first

We value our People

We value, recognise and appreciate all our people and their families; we foster teamwork and collaboration; we develop ourselves to be our best; we trust and empower one another

We focus on our Customer

We place all customers, both internal and external, at the heart of the business; we deliver on our promises to customers

We uphold Our Reputation

At Qatargas we always do what we say; we promote honest and transparent communication and conduct our business ethically

In line with our Direction Statement - which highlights our commitment to health and safety, environment, our workforce, economy and governance, we maintained our sustainability framework and policy, to further guide our practices and activities on these topics. Our sustainability policy prioritises sustainability at the centre of all our business decisions and ensures that our business activities are conducted in a sustainable manner and responsibly managing our economic, environmental and social performance. Our sustainability goal is to constantly drive performance improvements by managing company resources safely, efficiently and reliably, in full alignment with our company's financial, social and environmental priorities, applying world class management systems, thereby maximising the value Qatargas generates for all our stakeholders.

OUR SUSTAINABILITY POLICY COMMITMENTS

HEALTH AND SAFETY

Operate in accordance with the highest health and safety standards, strengthening our incident- and injury-free culture for employees and contractors, and safe use of assets in production processes.

ENVIRONMENT AND CLIMATE CHANGE

Constantly reduce the impact of our operations on the natural environment by saving resources, applying best waste and emission management practices, and eliminating hvdrocarbon releases.

SOCIETY

WORKFORCE

Provide personal and professional development opportunities in a safe and rewarding work environment to attract and retain a diverse, high-calibre national and international workforce.



ECONOMY

Contribute to economic development in Qatar by managing our operations efficiently and reliably, building strong relationships with our customers, pioneering innovative LNG applications, and demonstrating strong financial performance.



Conduct Qatargas' business transparently and ethically, complying with applicable laws, engaging in constructive dialogue with stakeholders on our most material sustainability issues, and making decisions that add value in the short, medium and long terms.

To further achieve our sustainability goal, we govern our activities and manage our sustainability performance by our various committees and leadership review meetings. We set up various objectives with corresponding Key Performance Indicators (KPIs) and targets for each of the key areas and develop a structured plan of actions directed at achieving these targets. Our leadership review meetings ensure our company is achieving its objectives and following the structured plan to meet our targets.

Demonstrate and promote outstanding corporate citisenship by proactively addressing societal challenges in collaboration with our partners to pave the way for a mmmm stronger and more cohesive society in Qatar, with focus on the Northern communities.

X

W

V

U

R

EXTRACTION

A Qatargas North Field **Offshore Platforms**

LIQUEFACTION AND REFINING

- B Inlet Receiving Facilities Feed Gas and Condensate Separation
- C LNG Trains QG1, QG2, QG3, QG4 RL, RL (II) & RL 3
- D Helium 1, Helium 2 & Helium 3
- E Laffan Refinery 1 & 2
- F Al Khaleej Gas (AKG) & Barzan

STORAGE AND SHIPPING

G Single Point Mooring for Condensate Loading

OMARCAS OPERATING COMPANYANA

В

E

D

TUNITURE

- (H) Condensate Storage
- LNG Storage

G

0

- J Non-LNG Products Storage
- LPG, Plant Condensate, Sulphur Kerojet, Naphtha, & Gasoil
- K Helium Container Loading
- L Associated Products Loading
- M Jetty Boil-Off Gas (JBOG)
- N LNG Vessel
- Helium Container Unloading
- P Associated Products Unloading
- Q LNG Receiving Terminal
- R Regasification Facilities

END USER

SALES GAS

- S Power Plant
- T Industrial and Commercial

ETHANE

- U Domestic Grid
- V Industry and Power Plant
- W Aviation Fuel
- X Petrol Station
- **Y** Residential Distribution
- Z Aerospace and Medicine

OUR VALUE CHAIN

Qatargas is a fully integrated LNG company with a value chain that runs from the well-head, off-shore Qatar, to our customers all around the world.



Stakeholder engagement

GRI 102-40, GRI 102-42, GRI 102-43

We realise that engaging with our stakeholders continuously supports Qatargas maintain accountability, be mindful of stakeholder interest, and be a conscious member of the community. By engaging with our stakeholders, we also ensure that we can safely manage our operations, provide a high quality of service, and be a major contributor to society.

The table below discloses key groups of stakeholders that are significantly affected by Qatargas' activities, products, and services, and have significant reciprocal influence. We use various stakeholder engagement channels to account for stakeholder interests, and to anticipate any concerns by providing adequate solutions.

Stakeholder	Key Concerns	Channels of Engagement
State of Qatar	 QNV 2030 Development of national talent Qatarisation Compliance with regulations 	 Meetings with government entities Partnerships with government entities Conferences and exhibitions
Shareholders	 Maintenance of safe and reliable operations Process efficiency Financial returns Reputation Participation in local economic and social development 	 Quarterly meetings Annual interviews and shareholder market presentations Board and ExCom meetings Sponsorship collaborations Liaison offices Annual sustainability report
Local community	 Responsible business practices Minimal environmental impacts Employment opportunities Safe operations Development of national talent 	 Social Investment Programmes and sponsorships Membership of RLIC COP Public reports Job fairs We also inform the local community through social media platforms
Employees	 Safe, and safety Competitive pay and benefits Continuous career development Open and transparent communications Supportive management 	 Periodic Medical Examination Regular departmental/team meetings Employee opinion surveys Corporate newsletters Town hall meetings CEO Forums for Trainees and Graduates Ask the CEO channel HR Service Desk Annual sustainability report
Media	- Transparency - Health and safety	 Strategic global media engagement program Press releases and press conferences Interviews and meetings Social media platforms
Customers	 Reliable, timely supplies of LNG and associated products Quality products 	 Contracts and agreements Country Liaison Offices Conference and exhibitions
Contractors and suppliers	 Fair contract bidding/awarding Timely payments Good working conditions 	 Contractual arrangements and bidding Conferences and exhibitions Third-party endorsement Medical inspections
The energy industry	 Timely and responsible communication Information/Data sharing Synergies in cooperation 	 Membership of global energy sector bodies Conference and exhibitions Technical papers and publications Sponsorship collaborations Keynote speeches
Non-Governmental Organisations	 Responsive communications Support to local NGOs 	- Presentations/Briefings - Meetings
Students and potential employees	 Accurate accessible information about career opportunities Compelling Employee Value Proposition Contribution to Educational Establishments 	 Recruitment campaigns Donations to educational institutions Scholarships Internship opportunities School outreach programs Career fairs Educational events Guest lectures

Materiality

GRI 102-44

Every year, we conduct a materiality assessment process, in which we engage with our stakeholders to understand the threshold at which a topic becomes sufficiently important that our company should report on. Our materiality process is aligned with the GRI Principle of Materiality that identifies the key material topics to report on in our Sustainability Report. The materiality

MATERIALITY PROCESS OVERVIEW

Review of sustainability context and stakeholder inclusiveness

A review took place after our 2018 sustainability report was published, and our company was preparing 2019 year's reporting cycle. The review focused on the material topics that were material in the previous reporting period and also considered stakeholder feedback. The findings contributed to the Identification Step for this reporting cycle.



Validation of material topics

The survey results were analysed, and the list of material topics identified for inclusion in our sustainability report was subsequently shared with Qatargas' leadership for validation and final sign-off. Validation is undertaken with the aim of ensuring Qatargas' sustainability report provides a reasonable and balanced representation of our company's sustainability performance, including both our positive and negative impacts. The Validation Step also ensures that the GRI Principles of 'Completeness' and 'Stakeholder Inclusiveness' are applied to finalise the list of material topics for defining the report contents. As a result of validation, Qatargas leadership highlighted three enablers to ensure continual improvement on the identified material topics. These three enablers are quality and flawless execution, reputation and agility. These three enablers will support Qatargas in its commitment towards sustainability and material topics. The results of our materiality assessment are shown on the next page.

principle is a key component of defining report content and is fundamental to achieving high quality sustainability reporting. We followed a four-step approach to perform our materiality assessment during the reporting period. A brief description of our approach is mentioned below.

Identification of potential material topics

The Step 2 Identification aims at identifying an initial broad list of relevant topics that merit inclusion in the sustainability report. Relevant topics are those that may reasonably be considered important for reflecting our company's economic, environmental and social impacts, or influencing the decisions of stakeholders.

Hence, we initially conducted a desk review to establish the sustainability context. We reviewed various sustainability frameworks - such as GRI Oil & Gas Supplement, IPIECA, UN SDGs and QNV 2030 and peer sustainability reports. We then identified 18 relevant material topics that cover economic social and environmental aspects and merit inclusion in our sustainability report.

Prioritisation of potential material topics

After the identification of the 18 relevant material topics, we distributed a Materiality Assessment Survey across various departments and divisions at Qatargas to evaluate and prioritise the potential material topics according to Qatargas' significant economic, environmental and social impacts, as well as the degree to which the topic would influence the decisions of stakeholders

MATERIALITY ASSESSMENT 2019 RESULTS

GRI 102-44



Most Material Topics
 Least Material Topics

List of Material and Relevant Sustainability Topics in 2019

GRI 102-44, GRI 102-47

Top Distinction	Topics Reported	Link to GRI Standard	Page Reference
	Efficient and reliable operations	GRI 103	28
	Workplace health and safety	GRI 103, 403	48-76
	Financial performance	GRI 103, 201	26-27
	Qatarisation	GRI 103, 202	80-82
MATERIAL	Process safety	GRI 103, G4 OG13	62-67
TOPICS	Customer satisfaction	GRI 103	28-29
	Energy efficiency, flaring and emissions	GRI 103, 302, 305	37-42
	Water and effluents	GRI 103, 303	42-43
	Training and development	GRI 103, 404	86-88
	Waste management	GR1 103, 306	43-45
	Local supply chain development and procurement practices	GRI 103, 204	29-31
OTHER IMPORTANT	Employment	GRI 103, 401	82-85
TOPICS	Indirect economic impact	GRI 203	29-30
	Local communities	GRI 413	89-98

In line with our materiality assessment results, we identified 10 topics that our management and stakeholders believe are important to report on. Hence, our performance on these 10 material topics and approach to manage these topics effectively is presented in the following sections of our sustainability report. We also identified four additional topics that we reported on in our sustainability report - local supply chain development and procurement practices, employment, indirect economic impact, and local communities. Our company decided to report on these because we cognize that these topics are significant to our sustainability vision and strategic objectives, as well as, provide an unbiased picture of our performance which includes a fair and balanced representation across the three reporting aspects: environmental, social and economic, according to the Global Reporting Initiative (GRI) principles off 'completeness' and 'balance'.



GOVERNANCE AND RISK MANAGEMENT

At Qatargas, we acknowledge our responsibility to maintain long-term viability and returns for our shareholders, while recognising our duty to prevent negative environmental and social impact of our operations on the local and international community. As such, our governance structure regards our shareholders and stakeholders with the highest importance. Our approach to corporate governance outlines a clear corporate and company ownership structure that would aim to identify and implement measures to improve our operations in line with our guiding pillars and values, while reducing and mitigating risks.

Operating Structure

GRI 102-45

Qatargas Operating Company Limited (OPCO) operates ten incorporated and one unincorporated joint venture companies, which constitute the Qatargas family. Each joint venture has a unique ownership structure with 70% of OPCO belonging to Qatar Petroleum and 30% of OPCO belonging to the 11 joint venture partners. The OPCO Board of Directors has 14 members: three are Qatar Petroleum representatives and eleven are other shareholder representatives.



Figure 2: Qatargas governance

The roles and responsibilities of the board members have been identified in OPCO's Articles or Association and Joint Venture Agreement, which also further delegate authority to the Chief Officers and their relevant committees of the 10 groups within the Qatargas family. Company management with sustainability is the responsibility of the Qatargas Chief Executive Officer (CEO). The diagram presented depicts the structure of Qatargas' governing bodies.



Figure 1: Qatargas shareholders

Qatargas Management System

The Qatargas Management System (QGMS) is the corporate management tool that defines 'what premier looks like' for Qatargas and provides methodologies and governance to build, embed and sustain 'premier business processes'. QGMS defines and governs the way our people execute their jobs and deliver value in a safe, effective and collaborative manner, steering our journey to achieve and sustain the Qatargas vision.

QGMS covers the full scope of Qatargas business. This includes all processes, departments, employees and steps of the value chain in which Qatargas participates. The QGMS framework is built using management system principles derived from academia and industry best practices. Its methodologies are uniquely designed to capture best practices that can be adapted for Qatargas. QGMS promotes cross-functional collaboration, open communication and clarity of organisational roles and accountabilities to deliver tangible and measurable improvement in business performance, while optimising resource and operational efficiency.

All Qatargas business processes are documented as per QGMS requirements to ensure integrated functioning between interrelated processes. This results in diverse parts of our business that can complement each other to achieve common company objectives and goals. An integral part of the QGMS framework is ongoing performance assessment and continuous improvement. In 2019, QGMS continued to provide process assurance and continuous improvement to support business process owners, while also fine-tuning the process assurance tools and methodology.

Since the integration, QGMS team has worked continuously to standardise business processes across all parts of the business to ensure all available best practices are integrated to support our journey to achieve and sustain the Qatargas vision.

Qatargas has set up a comprehensive Internal Audit system that allows management to monitor the performance of our activities to accurately assess and study their effectiveness. These activities are organised and managed by various departments in the company. The Internal Audit Department oversees this process and conducts periodic internal audits of different departments at least once every four years. The audit results are submitted to the Board Audit Committee who provide these reports to the Board of Directors.

Enterprise Risk Management and Business Continuity

The Enterprise Risk Management (ERM) division has established a robust risk management system in Qatargas for all our operations, based on international standards. The enterprise risk management system provides a framework to identify, report and manage risks to provide effective risk prevention and mitigation measures across the company's value chain. Our management approach is to ensure risk management is applicable enterprise-wide with risks being measured against key criteria, such as financial, reputational and Safety, Health and Environment (SHE) impacts. Risks are measured against corporate objectives driven by the QG Direction Statement and the underlying six pillars. The main KPI of the ERM division is to ensure risks are evaluated, reported and managed regularly, with corresponding actions followed up with regular reviews.

All our ERM procedures are aligned with best practices and ISO 31000. Verification of alignment with ISO 31000 is performed through a series of internal and external audits by stakeholders. The ERM division is audited on four levels: internally by Qatargas, by QP as the parent company, by its shareholders and by an independent third-party financial auditor. Mitigation plans and assessments for identified risks across the organisation at the ERM level are reviewed guarterly. The guarterly risk reviews involve regular meetings with almost all Qatargas divisions, representing our internal stakeholders. Another set of guarterly meetings involve our external stakeholder representatives that have shared positive feedback regarding the work of the ERM division. Risks classified as strategic are escalated to the Strategic Risk Register that is reviewed by our Management Leadership Team. The Management Leadership Team and our stakeholders also undertake a SWOT analysis annually which is an important opportunity to identify and discuss risks.

In 2019, Qatar State Audit Bureau continued the statelevel ERM programme introduced the previous year, in which Qatargas participated by sharing knowledge, interacting with industry peers and providing feedback to the organisers. In doing so, Qatargas have demonstrated their position as an ERM leader in the industry and the state of Qatar. In 2020, we will maintain the vital role we play in leading the industry and acting as a role model with regards to our ERM practices.

As part of our committment to managing risk, we have a dedicated Business Continuity Management (BCM) Plan that protects our integrated value chain in the event of a significant and prolonged disruption. Our integrated value chain consists of multilateral relationships between those elements, each of which can experience disruption that could potentially impact the entire value chain. All BCM procedures are aligned with best practices and ISO 22301. In 2019, the business continuity plans were implemented thoroughly with exercise scenarios including IT unavailability, operations incidents, HQ building incidents, etc. IT support readiness was reviewed with strategies such as VPN connectivity and shared drive backup folder implemented. Furthermore, Business Continuity Coordinators from each division were mobilised to alternate sites to exercise the entire Alternate Site Strategy, as part of an annual practice. Different QG divisions participated in the QP-led BCM exercise at RLC Port.

We are committed to continuing our standardisation and consistency efforts, actively enhancing the enterprise risk management process to support evolving needs and expansion plans of the company. Qatargas is committed to continuous improvement which strengthens business resilience. In 2019, the team continued to perform several tests and exercises, e.g. simulation and table-top exercises, that are to be conducted over a three-year period from 2018 to 2020.

Code of Business Ethics Policy

To foster a fair and responsible work environment, Qatargas has established the Code of Business Ethics Policy which lists regulations that promote certain behaviours and forbid others in our company. The policy describes the rules that Qatargas and its employees must comply with in respect of business ethics and conflict of interest. The purpose of this policy is to enhance the company's reputation for honesty, integrity and reliability by establishing and maintaining clear rules of conduct and ethical behaviour and minimising possibility of conflict of interest arising between employee's private interests and company interest.

A list of regulations explicitly forbid corruption, fraud and unethical behaviour. Enforcement of the Code of Business Ethics Policy is overseen by our Ethics and Conflict of Interest Committee, who enforce regulations listed throughout the company's departments. This committee also resolves issues arising from violations of the regulations and regularly communicate proper ethical conduct and practices that are expected from all our employees.

All Qatargas employees undergo a Code of Business Ethics Policy induction process to understand the rules and requirements before signing their affirmation annually to commit to the Code. Any conflicts of interest are evaluated on a case-by-case basis through the annual Conflict of Interest Declaration that requires confirmation and signatures from all employees. The evaluation examines whether an employee's position relative to a personal circumstance may affect objectivity and fairness when acting on behalf of the company. Through these efforts, we demonstrate our commitment to upholding the highest standards of integrity throughout our operations and activities. As such, we are dedicated to the strict enforcement of the Code to guarantee that our employees adopt a corporate culture that respects and upholds the company's ethical principles.

Furthermore, we have a whistle-blowing mechanism in place to protect ourselves against unethical behaviour. This mechanism is accessible to everyone in the organisation, including external stakeholders that can reach the reporting tool through the company website.



Figure 3: Avenues through which Qatargas' maintains Ethical and Responsible Conduct



ECONOMIC PERFORMANCE

In 2019, the global oil demand increased by 0.9% with Brent oil prices traded at an average USD 64.3 per barrel. Natural gas demand increased by 2% in 2019, well below the extraordinary growth of 5.3% in the previous year, with a total of 70 MTPA of new capacity FID-ed.

It was estimated that Qatar produced over 622,000 barrels per day of crude oil in 2019 and 4.8% of the total global natural gas production at 175.5 billion cubic metres. As a clean fuel, LNG has witnessed popularity from individuals, organisations and governments that are seeking environmentally friendly options. In 1985, Qatar's North Field was confirmed as one of the largest non-associated natural gas fields in the world, with recoverable reserves of more than 900 trillion standard cubic feet, corresponding to almost 10% of the global total.

Qatargas and the local oil and gas industry contribute greatly to socio-economic development in Qatar. Qatar is working towards the stewardship of its natural resources and the development of a knowledge-based society, targeting sustainable growth that balances todays needs with those of future generations. Part of Qatar's sustainable growth will come from actively diversifying its industrial and commercial base, while the country continues to invest in a multitude of other areas to develop the country. At Qatargas, we contribute to economic growth by helping meet current and future energy needs and enabling research on innovative technologies. We continued our contribution to sustainable development in Qatar during 2019, despite relatively low oil prices and increasing global competition. We overcame these challenges by rapidly responding to uncertainties, investments in technology and improving business resilience.

Our leadership at Qatargas address the importance of economic performance in the direction statement of the organisation. This can be seen in the six pillars of the organisation with one specifically dedicated to financial performance. This is also highlighted in the values of the organisation as it strives for premier performance and a focus on its customers. Qatargas' senior management commit to a focus on quality in everything we do and to innovate, optimise business and financial performance to ensure continuous improvement that puts the greater interest of our company first. Our management's approach to focus on the customer involves placing all customers, both internal and external, at the heart of the business to deliver on promises to these customers.

The material topics relevant to the economic performance of Qatargas in 2019 can be seen in the table below. These material topics have been aligned with the GRI standards on which this report has been based. The detailed GRI Content

Key achievements and highlights



QG commissioned **2 new terminals** (in India and China)

New international partnerships were forged with MNG (**Greece**); JOVO and ENN (**China**); POSCO and GS Energy (**Korea**)

Qatargas enters into a long-term Sale and Purchase Agreement (SPA) with Shell & Kuwait Petroleum for a total of **4 MTPA for 15 years**

15,675 MT of total fuel volume saved

USD**7.02**M worth of fuel cost savings

96.6% overall LNG availability performance

90% customer satisfaction rate

56% Proportion of procurement budget spent on 982 local suppliers/contractors

Index is provided in Appendix A. The selected material topics have also been broadly correlated to the UN SDG's to show the contribution of our activities and initiatives to align with those concepts. At Qatargas, we strongly align ourselves with the developmental pillars of the Qatar National Vision 2030 to do our part in contributing to the future of the state.



Material Topic	Alignment to GRI	Alignment to UN SDGs	Alignment to QNV 2030	
Financial performance	GRI 201	SDG 5, 7, 8, 9		
Procurement practices / Local supply chain development	GRI 204	SDG 8, 12		
Indirect economic impacts	GRI 203	-	Economic development	
Customer satisfaction	-	SDG 7		
Efficient and reliable operations	-	SDG 7, 8, 9, 12		
Supplier environment assessment	308	SDG 13	Environmental development	
Supplier social assessment	GRI 414	SDG 3	Social development	

During the 2019 reporting period, our economic performance showcases a journey highlighting various opportunities and challenges that are presented in this section. We focus on our management approach, how we managed LNG market dynamics given our resources, our basic sales performance information, operations reliability and efficiency, customer satisfaction and product responsibility and our commitment to national economic development.

Managing LNG Market Dynamics

By 2030, Asia will drive the need of 540 to 560 million tonnes per annum (Mtpa) of LNG, which will account for 86% of total growth. Continuing high global urbanisation rates, projected population growth in developing countries, and an increasingly environmentally conscientious public pushing for stricter air monitoring and control, have all been driving LNG demand. The LNG requirement for commercial ground transport and marine bunkering is



expected to continue to grow at a steady pace if current policy initiatives are enacted at a national or global level. In 2019, Qatargas reinforced its position as the World's Premier LNG Company and we continue to play a crucial role in maintaining sustainable performance according to QNV 2030. We are accomplishing sustainable performance by capturing synergies with market players, properly managing assets, ensuring reliability, practicing effective financial management and streamlining project delivery.

By providing cost-effective and reliable energy, Qatargas is playing an integral role in supporting the needs of local communities and economies around the world. With 70 vessels, we possess the largest fleet of LNG tankers by size and capacity on charter and can deliver LNG to multiple destinations during a single journey, granting us unparalleled flexibility in delivering LNG products to international markets. This allows us to explore and maintain new markets across the globe for its products and satisfy the needs of multiple customers at the same time, securing long-term LNG supply contracts that provide stable sources of income for Qatargas, allowing us to build a long-term investment strategy. In 2019, Qatargas vessels collectively completed a total distance travelled of 7.25 million nautical miles. In line with our focus on being the World's Premier LNG Company, Qatargas proudly delivers all cargoes on time, and in accordance with customer specifications.

The Commercial & Shipping Department's mission is to ensure the safe, efficient, and reliable transportation of LNG in support of Qatargas' customer requirements. During 2019 the department was able to ensure its vessel operators maintained full compliance with all applicable international and national regulations, including IMO legislation such as MARPOL and SOLAS.

A key stakeholder expectation for 2019 was compliance with new IMO 2020 legislation which required transition to the consumption of Low Sulphur Fuel Oil (LSFO) by 1 January 2020. The fleet successfully transitioned to LSFO ahead of the compliance deadline with no operational issues or instances of non-compliance. To fulfil this requirement, the department formed a multi-disciplined team and implemented a strategy which secured the economic supply of LSFO under global term contracts. As part of the longterm strategy, the department continued to develop the dual fuel conversion project that will enable all Q-Max and Q-Flex vessels to run on LNG instead of heavy fuel oil. The project is currently undergoing evaluation.

The department's main performance target is to sustain the safe and efficient transportation of LNG to meet customer requirements. In addition, there was a goal to successfully execute the North Field Expansion (NFE) shipping project.

This project aims to identify the most efficient LNG carrier design for future Qatargas fleet replacement and to support Qatari LNG projects.

During 2019, Qatargas secured two new Sale & Purchase Agreements (SPA) for an aggregate volume of 4 MTA. This was supplemented by the continued acquisition of new customers into Qatargas' short term portfolio, with a number of new Master Agreements (MSAs) being executed and first sales to companies such as JOVO of China and POSCO of Korea. As Qatargas expands its global customer base and geographic reach, the company has cemented its position as the world's premier LNG company.

Fleet Operations KPIs	2019 Performance
Daily ETA Update	100%
Pilot Request issued on Time	100%
Voyage Order issued on Time	96%
Load Port ETA	100%
Discharge Port ETA	99.9%
Initiation of Deviation / Off-Hire Process on Time	79%
Request for bunkers on Time	99%
Suez Transits as Planned	99%
Comments for CPA vessels schedule on Time	100%
Fuel Volume Saved Total	15,675 MT
Fuel Cost Saving Actual	\$7.02M
Voyage Optimisation Cost Saving	64%

Details of SPA -

- Shell 15 years, 1 MTA to Kuwait starting 2020
- KPC 15 years, 3 MTA to Kuwait, starting 2021
- Details of Partnerships We have added MNG (Greece), JOVO and ENN (China), POSCO and GS Energy (Korea) as new customers for spot volume.





Efficiency and Reliability of Operations

Qatargas' mission highlights the importance of sustaining reliability, ensuring asset integrity and plant availability through proactive and effective operations. We have established reliability and availability targets which are updated annually at a corporate level with related KPIs tracked on an annual basis that are reviewed by management.

In 2019, the LNG reliability target was 98.1%, and the actual LNG reliability performance was 99%, representing a 0.9% target surpass. The LNG availability during the same period was 96.6% which is 1% above the 2019 target of 95.6%. Overall, this represents a 1.4% increase from 2018.

The performance in 2018 was impacted by unplanned shutdowns which resulted in slightly lower LNG reliability and availability performance results. However, in 2019, those issues were overcome, and this resulted in outstanding performance with regards to LNG reliability and availability.



Customer Satisfaction and Product Responsibility

We continue to maintain strong relationship with our customers, owing to Qatargas' drive to deliver products of the highest quality and on schedule. Customer satisfaction is measured by a set of KPIs, each focusing on different areas, such as product quality, compliance to SPA requirements and flexibility of our schedule and fleet. At Qatargas, we have maintained flexibility towards our customers by accommodating requests, such as changes to vessel ETA at customer terminal or change of discharging terminal, etc. As a result, the positive response to the customers change requests were 90% in 2019 which fully meets the target. In the same year, Qatargas achieved 100% on-Spec and on time delivery as per SPA/CN requirements.

Furthermore, the Sales Contracts Department at Qatargas conducted a customer satisfaction survey for 34 of its longterm customers in 2019. It received very positive feedback from all customers on their overall business relationship with Qatargas. Some positive feedback included:

> Qatargas has been so far a reliable counterpart that we are always happy to work with. Operations are most of the times smooth and the communication efficient.

The quality of service is really praiseworthy! Flexibility is the key to satisfy the buyer, remain at the top in the ever-changing market environment. Qatargas helped us a lot to fulfil our major requirement.

As a demonstration of product environmental responsibility, Qatargas developed new operational procedures for Boil-off Gas (BOG) burning during discharge operations at Japanese terminals. Qatargas successfully initiated the programme which uses BOG to power its chartered conventional LNG vessels during cargo discharge operations. The new procedures were developed with the cooperation of Japanese customers and were first proven during discharge operations at Niigata LNG Terminal in October 2019. Using the boil-off natural gas instead of conventional fuel oil significantly reduces greenhouse gas emissions. As the LNG industry continues to grow, we set ourselves apart from the competition by regarding customer satisfaction with the highest importance and developing lasting partnerships with its customers.

2018	2019
85%	90%
96%	90%
Flexibility of delivery sc	
0	0
0	0
6	3
15	9
0	0
Quality requirement contract	nts as per
	85% 96% Flexibility of delivery so 0 0 0 15 15 0 Quality requirement



Contribution to National Economic Development

Qatargas actively contributes to Qatar's economic development by supporting the growth of our local businesses and thereby, supporting our local communities. Our Supply Department at Qatargas is fully aligned with the Economic Development pillar of QNV 2030. We provide opportunities for local suppliers by utilising an open tendering process to fulfil contracting and procurement needs. All open tenders are advertised in local print media outlets, offering local companies an opportunity to participate in the tender process.

Any tenders released by Qatargas are aligned to our demand plan that is set by management for the next five years. Depending on the type of tender and the end-user, there are tender committees that evaluate the bids received. Qatargas Tender documents and contracts specify several compliance requirements such as compliance to laws of the State of Qatar, labour laws, insurance requirements, performance guarantee requirements, safety requirements, taxation requirements, etc.

Our Supply Department then conducts a thorough evaluation process to review and select the required supplier, as requested by the end user department, by paying attention to whether they conform to the required legal, environmental and safety standards of Qatar. The initial screening process of suppliers include verifying compliance to the HSE requirements and the Qatar Labour Law, in particular. All Qatargas' suppliers are required to take all necessary measures to comply with the applicable laws, rules, or regulations of the Qatari government, Ras Laffan Industrial City (RLIC), and other regulatory agencies, in order to avoid any violations as stipulated by the contract. From an environmental perspective, this will prevent the discharge of any harmful materials or substances into the environment.

Qatargas' Supply department is critical to ensuring the smooth operation of the complete procurement process to maintain an effective and efficient supply chain. The Supply department is comprised of five strategic divisions. The functions of all the divisions are continuously reviewed and updated to meet the requirements and challenges of current and future business operations.



The interested suppliers bid for our open tenders online through the company portal. The process requires completing forms with all required information and uploading relevant attachments. The Supply Department maintains procedures for procurement of Materials and services and management of suppliers.

During the contract execution and upon conclusion, our suppliers are subject to an ongoing performance review by the Qatargas end-user in conjunction with the Qatargas Supply Department. This review involves assessing compliance with the contract and the defined terms and conditions. This occurs on a monthly, weekly and daily basis. The performance review will be followed by a contractor performance report and a violation report, if necessary.

As a key achievement in 2019, our Supply Dept was able to successfully update all policies and procedures and complete all required system upgrades. These tasks were part of post-integration activities and included introducing new tools and software to enable efficient operations for the department.

Additional 2019 highlights for the Supply Department included supporting operations integration and leading contracting activities related to North Field Expansion projects. The department also ensured timely award of several key OPCO tenders, e.g. shutdown contracts, various maintenance and engineering contracts while remaining focused on driving cost reduction & contractual savings. There was a focus on enabling Supply Excellence programs, most notable were tenders for eProcurement, supplier financial risk management solution, Master Data Governance Phase 2, and review of various policies and procedures.

The key objectives of the Supply Department within Qatargas OPCO is to ensure quick turnaround of the procurement of goods and services at optimum costs to support operations and major projects. Another objective is to manage associated warehouses supporting operational requirements. In 2019, Qatargas' stakeholders were engaged via the 2019 Shareholder Audit.





In addition, Qatargas was a participant of QP's Tawteen program, which is a new requirement set by our main stakeholder to ensure support of local suppliers. Tawteen is a strategic initiative to boost localisation strategy in the state and increase the share of In-Country Value (ICV) for support services across the energy sector in Qatar. It is officially the supply chain localisation program for the energy sector in Qatar and led by Qatar Petroleum with the participation of all the other companies operating in this sector. The program consists of three key pillars and these are new investment opportunities, supplier development initiatives and a new ICV policy. The primary objectives of Tawteen are as follows:

- Support the realisation of QNV 2030 by attracting companies engaged in knowledge and technologybased businesses.
- 2) Establish sustainable and competitive in-country suppliers to meet the requirements of Qatar's energy sector.

3) Support the growth and diversification of Qatar's economy.

After delivering impressive results and marking several key achievements in 2019, we are committed to ensuring that Qatargas experiences greater success in the future. As the World's Premier LNG Company, we have set a series of objectives that demonstrate how we lead the LNG industry and continue to bring continued prosperity to the State and people of Qatar.



Figure 4: Objectives for Qatargas Supply Department



ENVIRONMENTAL PERFORMANCE

As a leading energy operator and the largest LNG producer in the world, we realise our leadership role in driving environmental protection. In line with our Direction Statement and our vision of being a key contributor to the fulfilment of the Qatar National Vision (QNV) 2030 goals and objectives, we have invested significantly in a range of environmental mitigation and improvement initiatives to reduce our environmental footprint.

Our Company's environmental journey during the reporting period is presented in this section and provides an overview of our leadership and management commitment on environmental protection while highlighting our performance on material topics as tabulated below, which include energy, greenhouse gas (GHG) emissions, flaring, air emissions, water and wastewater management, waste management, and biodiversity.

	Material Topic	Correlation to GRI	Correlation to UN SDGs	Alignmen to QNV 2030
	Energy	GRI 302	UN SDG 7, 8,12 and 13	
	GHG	GRI 305	UN SDG 3, 12, 13, 14, 15	t
	Flaring	GRI OG6	UN SDG 3, 12, 13, 14, 15	Environmental Development
	Air emissions	GRI 305	UN SDG 3, 12, 13, 14, 15	nvironmenta
1	Water and wastewater management	GRI 303, GRI 306	UN SDG 6, 8, 12	Ш
	Waste management	GRI 306	UN SDG 3, 6, 12, 13, 14, 15	

Key achievements and highlights



No non-compliance incidents with environmental regulations

Awarded British Safety Council's Five Star Environmental Sustainability Award "Globe of Honour"

Captured **1.2 million** tons of carbon dioxide during the reporting period

12% reduction in GHG emissions tonnage vs. 2012 and 4% reduction vs. 2018

Achieved **76%** reduction in flaring since 2011 with 0.38% flaring of sweet gas production against target of 0.45%

Launched Go Green environmental awareness campaign for 2019 **Go Green, Breathe Clean**

Successful start-up of our Treated Industrial and Process Water (TIPW) facility

Commissioned new dedicated Waste Materials Management facility

Enhanced recycling rates to **39%** of total generated waste with implementation of key recycling initiatives with local SMEs.

Installed **200** artificial coral reef modules off Banana Island

Environmental Leadership

Leadership commitment to environmental protection is pivotal to the continuous improvement of our environmental performance as a Company. Accordingly, our Direction Statement emphasises this commitment and our key role as an important contributor to the QNV 2030, which includes Environmental Development as a key pillar.

Environmental leadership and management at Qatargas

Qatargas	▶ Key	 Safety, 	▶ Environmental	Environment	▶ Environmental	▶ Environmental
Direction	Performance	Health and	Management	Compliance	Mitigation and	Awareness
Statement	Indicators	Environment	System,	Procedure as	Improvement	and
	(KPIs) and	Committee to	certified	part of our	Initiatives;	Stakeholder
Qatargas	targets	oversee SHE	under ISO	Environmental	surveillance,	Engagement
strategic plan		performance	14001 as a	Compliance	monitoring	
2020-2025	Structured	and Ensure	component of	Programme	and reporting	
	action plans	Protection	our Qatargas			
» Safety,	to achieve set	Steering	Management			
Health,	targets	Committee	System			
Environment		to provide	(QGMS)			
and Quality		governance				
policy		and strategic	Internal audit			
		guidance	teams and			
		for SHE	cyclic internal			
		management	audits			

Moreover, our leadership realises the need for a proactive and forward-looking position on emerging environmental issues and risks in a rapidly changing global market. As part of the Qatargas 2020-2025 Strategic Plan the Qatargas Management and Leadership Team (MLT) has mandated the development of a Long-Term Environmental Strategy for Qatargas as a key corporate objective in 2020. The objective of the strategy will be for Qatargas to achieve sustainable premier environmental performance while addressing existing and emerging issues, risks and opportunities. The strategy will formulate Qatargas' environmental vision for the future and address key issues such as GHG emissions reduction, our environmental footprint across our value-chain and future developments and expansions, and opportunities to further highlight Qatargas' environmental achievements and the inherent clean nature of LNG as a fuel to stakeholders and customers in the global shift to low-carbon energy.

Along with our Direction Statement and corporate strategies, we also maintain our Safety, Health, Environment and Quality policy (SHE&Q), which governs our environmental performance in line with the Environmental Development of Qatar's National Vision 2030. In order to translate our environmental commitments in our SHE&Q policy and Direction Statement to reality, we established objectives with corresponding Key Performance Indicators (KPIs) and targets on both corporate and asset levels and developed a structured plan of actions directed at achieving these targets. Qatargas has a dedicated Safety, Health and Environment (SHE) Committee that is guided by the SHE Committee Charter and chaired by Qatargas Chief Executive Officer to oversee SHE performance at Qatargas. The SHE Committee reviews SHE performance highlights, lessons learned monthly and conducts management site visits of our facilities and operations to demonstrate SHE leadership and management commitment onsite. We also established the Ensure Protection Steering Committee (EPSC) to provide governance and strategic guidance for SHE management within the Qatargas Management System (QGMS), including the Manage Environmental Impact Process. Our environmental protection, compliance, monitoring and reporting processes are health-checked through a self-audit process reported to the EPSC.

We also have a Shipping Department Audit Team that conducts audits on vessel operators' offices at two to three-year intervals, or sooner if warranted. Our shipping department's audit is based on the Oil Companies International Marine Forum's, (OCIMF), "Tanker Management Self-Assessment" (TMSA), which includes an element that addresses Environmental and Energy Management. For this element, we verify that vessel operators comply with the International Maritime Organisation's (IMO) Ship Energy Efficiency Management Plan (SEEMP) requirement. The main aim of the SEEMP is to not only reduce harmful emission from ships, but also to improve efficiency and decrease fuel consumption.

We recognise the paramount importance of complying with local and international environmental requirements. Our legal and regulatory environmental requirements include State of Qatar environmental laws and regulations, environmental construction and operating permits as well as other governmental authorisations that we are legally obligated to comply with. Qatargas also complies with other local requirements such as Land Lease Agreement (LLA) conditions issued by Ras Laffan Industrial City (RLC) and Qatar Petroleum (QP) corporate and shareholder requirements, as deemed applicable.

The primary environmental compliance document for Qatargas is the Consent to Operate (CTO) issued by the Ministry of Municipality and Environment (MME). Separate CTOs are issued for each Qatargas operating asset which specify environmental compliance, monitoring, reporting and record keeping requirements. We have a team dedicated to environmental compliance and regulatory affairs that liaises closely with the MME and other national organisations to maintain Qatargas' leading position in environmental and regulatory compliance within the country and our operations.

We also work closely with our Major Projects and Engineering Teams to ensure that environmental risks of construction, commissioning, Simultaneous Operations (SIMOPS), and operational phases of our expansion, engineering and environmental projects are adequately assessed and mitigated in compliance with applicable environmental regulations following Best Available Technology (BAT) approaches. Qatargas follows a comprehensive environmental permitting process for each project with Environmental and/or Socio-economic and Health Impact Assessments (EIAs/ESHIAs) and related studies conducted, where applicable, to assess potential environmental impacts across each project's lifecycle and implement stringent environmental controls to minimise each project's environmental footprint in line with environmental regulations and BAT requirements.

In 2019, an over-arching procedure was established for our Environmental Compliance Programme (ECP) to oversee an extensive and systematic approach to environmental compliance verifications across our operations and assets. In line with our ECP procedure, we completed

Environmental Compliance Program



annual environmental compliance verifications for all of our operating assets during the reporting period against a full range of applicable environmental compliance requirements. We continued to maintain compliance through 2019 without any regulatory non-compliance issues or incidents.

For our chartered fleet, we comply with international environmental requirements such as International Maritime Organisation (IMO), Regional Organisation of Protection of Marine Environment (ROPME) and requirements of the International Convention for the Prevention of Pollution from Ships (MARPOL) as applicable to our marine-related activities.

Furthermore, our leadership recognises the importance of environmental awareness and stakeholder engagement. In 2019, our environmental focus areas, achievements and projects were also highlighted across a range of forums, including the 2nd Qatar Petroleum (QP) Environmental Sustainability Initiative and Achievement Workshop, the 2019 Tech Talks led by



Texas A&M Qatar (TAMUQ) and Conoco-Philips Qatar and the 16th Qatargas Engineering Forum.

We also had employees participate in environmental trainings and professional development opportunities such as ExxonMobil's Tamayoz Training Program, which included intensive classroom and field training on environmental monitoring practices and provided us with an opportunity to interact with our peers from ExxonMobil, QP and MME. Our environmental team members also participated in a 4-week long technical training program led by the Chiyoda Corporation in Japan which provided an in-depth technical overview of LNG project and plant operations and engineering to further enhance our technical skills as we ensure compliance with environmental requirements through our operations.

Qatargas also prioritises partnering with various institutions and organisations. For instance, Qatargas' Shipping Department is a member of SEA/LNG; a multi-sector industry coalition that aims to demonstrate, deliver, and amplify commercial opportunities for the accelerated development of LNG, as a bunker fuel. This helps promote the use of cleaner and more environmentally friendly fuels throughout the global shipping industry. Our Shipping Department also provides additional resources and support to the Green Award Foundation (GAF) through representation on the "Board of Experts" where our Qatargas Shipping Manager holds the position of Vice-Chairman. Our Shipping Department has also received the British Safety Council's Five Star Environmental Sustainability award, the "Globe of Honour" for the past six consecutive years which further demonstrates



the robustness of Qatargas' shipping environmental management systems and management's commitment to environmental excellence.

Qatargas employee receives gold medal with honours at the 47th International Exhibition of Inventions

Details of the case study:

Mohammed Ibrahim AI Housani, Well Performance Engineer, Qatargas, represented the State of Qatar alongside four other National inventors who travelled to Switzerland to showcase their inventions at the 47th International Exhibition of Inventions. Mohammed's invention is a solar energy system called 'TaQaTech', a novel hybrid integration of technologies that can produce both thermal and electrical energy efficiently. The International Exhibition of Inventions of Geneva is the biggest event in the world focused exclusively on ground-breaking inventions. With more than 800 exhibitors from 40 countries, and more than 1000 patented inventions, the gold medal with honour is reserved for the best entries. To receive this accolade, every member of the judging panel must award the invention a combined score higher than 90 points.



Outcomes:

- Mohammed was awarded the highly acclaimed gold medal with honours at the 47th International Exhibition of Inventions in Geneva, Switzerland
- Mohammed's achievement was lauded by His Excellency Salah bin Ghanem AI Ali, the Minister of Culture and Sports, at a celebratory dinner
- 'TaQaTech' will be displayed at the Qatar National Museum in the science exhibition as one of 'Qatar's Science Achievements in the Modern Era'.

In addition, Qatargas is a member of Laffan Environmental Society (LES) and the International Association of Oil and Gas Producers (IOGP). The latter acts as a global forum for its members to identify and share knowledge and best practices to enhance health, safety, environment, security and social responsibility. The IOGP also acts as a global partner to oil and gas regulatory bodies to improve environmental, safety and social performance.

Energy

As a leading LNG producer, our main source of energy consumption is fuel gas and accounts for 99.2% of our total energy consumption. The fuel consumed is used to produce steam and power our operations. The remaining 0.8% of our energy consumption represents electricity received from the grid by Qatar General Electricity and Water Corporation (KAHRAMAA). Electricity is mainly used for powering buildings, offsite areas and also for various plant operations. At Qatargas, we comprehend that we operate in an energy intensive sector and play a crucial role in mitigating our emissions by managing our energy consumption responsibly and efficiently. Our main headquarters in the heart of Doha is certified under the Leadership in the Energy and Environmental Design (LEED) standard, which demonstrates our commitment to preserving environmental sustainability while retaining our position as the World's Premier LNG Company.

In addition, we have an ongoing comprehensive energy efficiency study on our LNG assets in partnership with Qatar Petroleum, which continued in 2019. The objective of the study is to better manage fuel gas, feed gas or flared gas in order to achieve energy savings. The study is expected to conclude in 2020 and we will incorporate feasible outcomes in coming years.

As a result of our proactive approach to manage energy consumption, we reduced our total energy use by approximately 2% during the reporting period in comparison with 2018. Our total energy consumption within Qatargas from direct and indirect energy consumption was

Energy consumption breakdown within Qatargas



Indirect energy consumption (Purchased electricity) - Kilo GJ
 Energy consumption Outside Qatargas - Kilo GJ

approximately 530 million GJ, whereas our total energy consumption from outside Qatargas was 50,447 GJ. Our energy consumption outside of Qatargas accounts mainly for travel-related aspects (road, air travel), with the increase in 2019 mainly being attributed to provision of more cars and buses for employee travel.

In addition to managing our energy uses efficiently, Qatargas had commenced a pilot project in 2015 to convert the main engines on board the Q-Max vessel Rasheeda from burning heavy fuel oil (HFO) to utilise LNG as a primary fuel source. This pilot project was the first phase in a larger scale project to evaluate the potential conversion of all 45 Q-Max and Q-Flex vessels to burn LNG as a primary fuel source, as opposed to HFO. The project is currently under internal evaluation to assess the environmental, technical, and commercial aspects of the project.

This bunker fuel development initiative will aid Qatargas' preparations for stricter global sulphur cap requirements being drafted by the International Maritime Organisation (IMO), which is slated for ratification in 2020. As part of this initiative, a project on the use of M-type Electronically Controlled-Gas Injection was undertaken to convert chartered long-term LNG carriers to use LNG as a fuel of this environmentally friendlier alternative. This has the potential to reduce GHG emissions and other pollutants. The pilot project and the subsequent evaluation of this technology and its economic benefits are ongoing.



Greenhouse Gas (GHG)

We are aware that the oil and gas sector is a significant contributor to the total global GHG emissions, thus, we comprehend that slight shifts in our practices can contribute to emissions reduction. We realise that managing our emissions is a continuous process and we are committed to implementing proactive solutions to reduce them. We therefore implemented a forward-looking

GHG management programme in 2012, with the objective of establishing a systematic process to measure and track GHG emissions, benchmark our performance and identify opportunities for GHG emissions reduction.

GHG Management Programme



Our GHG Accounting and Reporting (A&R) process is a key component of our overall GHG management programme and our emissions inventories for our value chain (plant and shipping) are based on the United Nations Intergovernmental Panel on Climate Change (IPCC) Guidelines for GHG Inventories. The plant-based inventories adhere to the QP GHG Accounting and Reporting Procedures, which are in turn based on the European Monitoring and Reporting Regulations (MRR). Other guidelines that are followed and that form the basis of Qatargas calculations are the GHG Inventory Protocol established by the World Resources Institute and World Business Council for Sustainable Development (WRI/WBCSD), and the API Compendium of Greenhouse Gas Emissions (2009). Our GHG A&R process helps us look at trends and approach future plans for emissions management. Scope 1 emissions are GHG emissions from sources that are owned or controlled by Qatargas - mainly our fuel consumption. Our Scope 2 emissions result from the generation of purchased electricity from KAHRAMAA. In addition to the above, we also report shipping related emissions from our chartered fleet.



We perform monthly and quarterly reporting on our performance internally to our leadership and externally to QP. Moreover, to ensure a robust system is in place, our GHG A&R system across our offshore, LNG production, storage and loading processes is externally audited by a 3rd party auditor through a process stewarded by QP twice a year in accordance with ISO14064-3 : 2006.

Apart from our initiatives at our LNG assets, we also ensure that our chartered LNG transportation vessels mitigate climate change effects. Qatargas adheres to the global standard set by the Green Award to ensure that fleet endorses minimal environmental impact. All 70 of our long-term chartered LNG transportation vessels acquired the Green Award Certification after passing a meticulous procedure, including an audit of the Qatargas' long-term vessels operators as well as reviews and surveys of each vessel.

LNG tankers are designed to carry natural gas in liquid form at a temperature of - 163°C, close to the vaporisation temperature. This natural evaporation, known as boil-off, is unavoidable and has to be removed from the tanks in order to maintain the cargo tank pressure. Using the boil-off natural gas instead of conventional fuel oil significantly reduces greenhouse gas and other harmful emissions over the course of the discharge operation. In 2019, we also initiated a pilot study to utilise LNG boil-off gas to power one of our chartered conventional LNG vessels during unloading operations at Japanese LNG terminals. Our 'AI Jasra' vessel completed the first successful operation of utilising LNG boil-off while discharging at Japan's Niigata LNG Terminal in October 2019.

During the reporting period, we reduced our GHG emissions by 4% amounting to 1.43 million tonnes of CO_2 . The reduction is primarily attributed to additional injection of CO_2 emissions, flare reduction, and significantly due to lower production and thus reduced use of fuel gas. In addition to absolute GHG emissions, we also track our Scope 1 GHG intensity and we believe it is the best indicator of our current GHG performance because it is normalised against our production (LNG and AKG only). Our GHG intensity has been decreasing across the years, which reflects our continuous efforts and commitment towards reducing GHG emissions.



2018

GHG Intensity

2019

0.2-

0.1-

2017

Since 2012, we have lowered our GHG emissions footprint by 12% through our flare reduction projects, high plant reliability and CO_2 sequestration. This equates to a reduction of ~4 million tonnes per annum of CO_2 and is equivalent to the CO_2 sequestration capacity of 5.2 million acres of forest and CO_2 from 0.84 million passenger cars driven for a year

Start-up of Our Dedicated Carbon Dioxide (CO₂) Injection Facility

Details of the case study:

Qatargas re-designed its previous acid gas injection facility to a dedicated carbon capture and storage facility. This facility was successfully commissioned in February 2019 and represents the largest CO_2 sequestration facility in the region with a total capacity to capture 2.2 million tonnes of CO_2 per annum. In 2019, we captured 1.2 million tonnes of CO2 in this facility and this volume is expected to gradually increase to its existing full capacity 2.2 million tonnes of CO_2 . Qatargas plans to increase its carbon sequestration capacity to 5 million tonnes by 2025. Some of this CO_2 , is also expected to be exported outside of Qatargas to be used towards enhanced oil recovery in the future.



Outcomes:

Captured 1.2 million tons of carbon dioxide in 2019, which represents approximately 30% of our total GHG emissions reduction since 2012

Flaring

Flare reduction is a key focus area across Qatargas' operations, during normal plant conditions as well as during trips and planned turnarounds. While key contributors to flaring are from trips/upsets and planned turnarounds (shutdowns and start-ups), a certain volume of purge gas needs to be sent to the flare system continuously to keep the flare lines on positive pressure as an essential process safety requirement.

Qatargas is fully committed to implementing measures to keep flaring to a minimum while maintaining process safety. Our main drivers in flare reduction stem from our commitment to the Qatar National Vision 2030 and our Direction Statement. These drivers have contributed to the formulation of a comprehensive and effective Flare Management Programme that has proven to be robust, sustainable and well-managed, resulting in our outstanding flare reduction results.

We have multi-disciplinary Flare Management Teams (FMTs) that meet on a monthly basis to discuss critical articles around flare volumes, targets and other articles of concern. The FMTs lead all discussions, ideas and concepts around flare management, keep our organisation aware on various facets of flare management, track and validate flare performance data, conduct surveillance of 'bad actors' with action items raised, tracked and mitigated, revise and optimise operational and reporting procedures, where applicable, progress operational reliability and maintenance related initiatives and assess flare meter performance. The

FMTs also proposes flaring targets for each year. These are based on historical trends, planned events, and expected operational boundaries. Targets typically have low tolerance and are kept challenging.

During the reporting period, and as a result of a combination of excellent plant reliability, outstanding shutdown flaring performance and the continued flare minimisation focus of our Flare Management Teams (FMTs), we achieved 17% reduction in our total onshore flaring from 0.46% (of sweet gas production) in 2018 to 0.38% in 2019.





Flaring (% of sweet gas production) at Qatargas



17% reduction in onshore flaring vs 2018

Up to 73% flaring reduction during 2019 maintenance turnarounds at our LNG and sales gas assets

Up to 42% reduction in flaring at our Laffan Refinery and Laffan Refinery 2 vs. their regulatory targets

58% reduction in flaring during our total shutdown in Laffan Refinery vs. previous total shutdown in 2014

95.2% JBOG recovery performance (vs. 90%) regulatory target)

In its journey to reduce flaring, Qatargas has invested in new projects on existing systems, applied process and operational controls and reduced flaring during turnarounds and trips. Some of our major flare reduction initiatives have been our \$1 billion Jetty Boil-Off Gas (JBOG) facility, purge

We have reduced our flaring by 55,000 MMSCF per annum between 2011 and 2019 which is enough gas saved to power 560,000 homes

gas reduction at our LNG mega-trains, fuel gas consumption reduction for the flares and a passing valve monitoring program. Our Flare Reduction Project, which includes the installation of gas interconnections at some of our LNG

mega-trains to help divert gas to other operating trains instead of flaring, progressed to completion with expected start-up in 2020. Since 2011, Qatargas has reduced its flaring by approximately 76% for its onshore production facilities and greater than 90% at its LNG loading area. Multiple options are being studied to further reduce flaring without compromising on process safety and plant reliability.





Air Emissions

In addition to GHG emissions, Qatargas has implemented

a range of advanced emission controls as well as extensive monitoring and reporting requirements for emissions of Nitrogen Oxides (NOx) Sulphur Dioxide (SO₂) and Volatile Organic Compounds (VOCs). In 2019, our NOx emissions were lower

Since 2008, we have invested significantly to reduce our NOx intensity by over 85% by retrofitting our older fired sources with advanced NOx controls



by 4.7% when compared to 2018 due to lower flaring and reduced production. Similarly, our VOC emissions decreased during the reporting period by 3.2% compared to 2018 due to our effective LDAR programme. Our SO,

emissions increased in 2019 by 22.5% against 2018 emissions due to diversion of acid gas to our existing Sulfur Recovery Units (SRUs). This acid gas was previously being injected via our acid gas injection facility, which was converted to a dedicated CO₂ injection facility in February 2019.

As part of our efforts to ensure reduction in air emissions, we maintained our mature

and robust Leak Detection and Repair (LDAR) programme at our LNG and sales gas facilities, refineries and terminal facilities, which provides surveillance of fugitive VOC emissions from piping components, leading to necessary repairs in identified leakage sources. Our LDAR program is based on United States Environmental Protection Agency (USEPA) 40CFR60 guidelines with annual monitoring, repair and re-monitoring cycles and is one of the largest programs of its kind in Qatar. While primarily addressing VOC emissions, components with concomitant methane emissions (as part of the overall hydrocarbon stream) are also monitored and repaired resulting in associated GHG emission reductions. Qatargas' LDAR program is being expanded in 2020 to also include all components in

dedicated methane service (in addition to existing VOCservice components) to reduce fugitive methane emissions.

As for our chartered fleet, we also seek to reduce our air emissions and started using very low sulphur fuel oil to run our LNG fleet in advance of the International Maritime Organisation's regulation for a global sulphur limit of 0.5 % in maritime fuel, which is to come into effect on 1 January 2020. Our LDAR program currently caters to 118,000 piping components and helps manage potentially harmful VOC emissions that contribute to the formation of atmospheric smog, thereby affecting air quality.

Go Green, Breathe Clean campaign

Details of the case study:

In 2019, as part of our school outreach efforts, we launched our Go Green, Breathe Clean campaign in various national and international schools to promote awareness, amongst the student community of air pollution and how we can all contribute to improve air guality. The campaign is part of our commitment towards cultivating sustainable environmental practices and fostering community wellbeing in line with the Qatar National Vision 2030. Through a hands-on learning experience, students were engaged with various presentations, guizzes and activities on air pollution and its harmful impacts. Students were also briefed on various environmental initiatives implemented by Qatargas to reduce our emissions. These included our CO₂ sequestration through our dedicated CO₂ injection facility, our JBOG facility and our various flare reduction initiatives.



Outcomes:

- Promoted awareness amongst student community on air pollution
- Briefted students on Qatargas' environmental initiatives

Water and Wastewater Management

Qatargas has implemented an extensive wastewater reduction and reuse programme in line with the State of Qatar's objectives maximise the efficient reuse of water to preserve this precious resource. This approach has resulted in multiple projects, including upgrading existing treatment facilities to Membrane Bioreactors (MBRs) coupled with a tertiary treatment system comprising Multi-Media Filtration (MMF) and Reverse Osmosis (RO) units.



Water is consumed at Qatargas as cooling water or process water (desalinated). The cooling water is supplied from the sea and is recycled and used for heat exchange to cool other process streams. The total amount of cooling water used in 2019 amounted to 6.58 billion m3.

On the other hand, our desalinated process water is either supplied by KAHRAMAA or is generated on site to be primarily used for steam generation. In 2019, we consumed 7.3 million m3 of desalinated water. During the reporting period, we also produced 54% more desalinated water from recycling due to the steady performance of our Zero Liquid Discharge (ZLD) facility and commissioning of our new Treated Industrial Process Water (TIPW) facility. Due to our increased wastewater recycling capacities, we reduced our subsurface injection by 5.5%, however, our discharge to sea of reject water (meeting irrigation standards) increased by 21% when compared with 2018.

Water discharge by sink type at Qatargas



Commissioning of Treated Industrial and Process Water facility

Details of the case study:

In 2019, our TIPW facility was successfully commissioned. This environmental initiative uses advanced wastewater processing technology to reprocess the treated industrial wastewater generated by Qatargas. Contaminants in the wastewater are removed via biological treatment, ultrafiltration and reverse osmosis, achieving water purity of the same quality as desalinated water. In 2020, we expect to commission two additional wastewater recycling and reuse facilities to further increase our wastewater recycling volume and reduce discharge to sea and subsurface injection.

Outcomes:

Recycling of additional 300,000 m³ of wastewater compared to 2018

Upon completion of our multiple wastewater treatment facilities, we expect to reuse approximately 70% of our total wastewater generation resulting in a reduction of approximately 1.2 billion litres of desalinated water consumption per annum.

Waste Management

At Qatargas, we recognise the importance of managing our waste responsibly in line with QNV 2030 and best industry practices. Our operations generate various types of hazardous and non-hazardous waste streams, and we carefully evaluate waste management options for each of those streams internally and by partnering with local enterprises to promote further development of crossindustry synergies and waste management infrastructure.

We have developed the Qatargas Waste Management System based on the integrated approach to waste focusing on efficient operations, management of waste facilities and robust systems and procedures. Qatargas uses the 4R principle of Reducing the waste at source, Reusing inside the Qatargas premises, Recycling to outside for co-processing and last, but not the least, Responsible disposal.

Our hazardous waste comprises primarily of used molecular sieve and sludge and slurry streams accounting for 59% of our total generated waste. In 2019, we generated, 5% less waste overall, however generation of hazardous waste was 11% more compared to previous year due to increased maintenance activities at our facilities.



We managed to recycle 39% of the total waste generated in 2019, which is a significant achievement compared to previous years (15-27% recycling previously). This represents a reduction of 5,500 tonnes of waste that would otherwise have been landfilled.



Our focus on waste minimisation and recycling allowed Qatargas to implement new initiatives such as coprocessing of molecular sieves at a local cement plant and recycling of hydrocarbons generated from sludge and slurry treatment process. In line with Qatargas' strategic vision to support local business, we are also establishing new partnership initiatives with other local Small Medium Enterprises (SMEs) to recycle sulphur contaminated streams at a local acid production facility and various hydrocarbon streams at new recycling plants in Qatar.

Infrastructure is one of the essential elements for the safe management of hazardous waste streams. In Qatargas, our commitment to sound environmental and safety practices led to establishment of a new Waste Materials Management Facility which will provide long-term option for quality management of hazardous waste.





Hazardous waste (tonne) at Qatargas broken down by type in 2019



Non-Hazardous waste (tonne) at Qatargas broken down by type in 2019



Commissioning of Waste Materials Management Facility

Details of the case study:

In September 2019, our new Qatargas Waste Materials Management Facility (WMMF) became operational providing critical infrastructure for management of hazardous and non-hazardous waste materials at Qatargas. The WMMF serves primarily as an Integrated Hazardous Waste Hub for handling, segregation, temporary storage and treatment of company generated hazardous waste streams, while it has a capacity to accommodate non-hazardous streams as well.

Construction activities commenced in 2017 following an extensive feasibility study and Front End Engineering Design (FEED) led by a multi-disciplinary team comprising Engineering, Environmental and Maintenance representatives to utilise synergies and propose a fit-for-purpose and practical facility design. The facility was completed within two years, followed by successful commissioning and start-up within 6 months of completion of construction. The facility provides an overall waste storage area of 37,500 m2 and has been designed in accordance with State of Qatar regulations and incorporates international best practices with secondary containment provided by concrete pavement and engineered drainage systems, dedicated fire deluge and gas detection systems, new 'Shelter in Place' design in case of process emergencies, and dedicated waste staging and handling areas include weighbridge, drum washing bay and treatment areas.

Outcomes:

- Reduction of waste residence time on site and overall improvement of operational efficiency;
- Improved waste storage conditions, environmental and safety controls;
- 3. First Shelter in Place system installed at Qatargas;
- 4. Optimise waste staging and weighing processes to increase cost efficiency.

Molecular Sieves co-processing as a supplemental feed in Cement Plant

Details of the case study:

We successfully implemented a major recycling initiative to co-process spent molecular sieves as a supplemental feed in cement manufacturing as 'Green Clinker' at a local cement plant. In line with Qatargas' objectives to support the local business community, the journey of spent molecular sieve recycling began with a successful collaboration with a local waste recycling SME. This collaboration entailed extensive testing, pilot field trials and a regulatory review and approvals process, following which more than 950 metric tonnes of spent molecular sieves were recycled in a local cement plant in 2019, where it was used to replace a part of the bauxite feed in the cement production process. The successful molecular sieve recycling collaboration was a mutually beneficial project for both Qatargas and our local SME partners. Moreover, it became a sustainable and potentially long-term solution, which provides financial, HSE and operational benefits to both parties as opposed to traditional disposal at landfill sites or energy demanding pre-treatment via thermal desorption units.

Solution for Spent Molecular Sieves (SMS)

Outcomes:

More than 950 metric tonnes of spent molecular sieves were recycled in 2019.

Biodiversity

Qatar's industrialisation and development has been growing at an extraordinary rate posing risks on its biodiversity, which led Qatar to establish the Qatar National Biodiversity Strategy 2015-2025 and promote organisations and community to be more environmentally aware and support in the journey of sustaining Qatar's biodiversity.

Therefore, we at Qatargas, as the largest LNG producer, recognise the adverse effects that our operations can have on the environment and realise that managing our activities and implementing environmental initiatives can support in our commitment to reducing our ecological footprint and protecting our biodiversity.

During the reporting period and in collaboration with the Ministry of Municipality and Environment (MME), we successfully completed the installation of 200 artificial

Qatargas has successfully relocated more than 7,300 live corals to protected areas since 2007. coral ridge modules off Banana Island. The artificial coral ridge installation project is testament to Qatargas' commitment to protect Qatar's rich offshore biodiversity.

The project involved performing a Marine Environmental Assessment (MEA) of various recipient marine locations in cooperation with the MME. After an appropriate site assessment, the location was selected to accommodate such initiative. The design of the artificial ridge modules was studied carefully to ensure they mimic the natural Qatari marine environment and was fabricated locally in Qatar using environmentally friendly materials following the MME's guidance. Each artificial module was made of a special reinforcement free, low-pH concrete mix, which was carefully hand sculpted on a mould that allows for a variety of interstitial spaces which attracts different kinds and sizes of fish and other marine organisms. It should be noted that our marine biodiversity conservation projects are a continuation of our efforts in conserving nearshore corals since 2007.









HEALTH AND SAFETY PERFORMANCE

At Qatargas, safety is a core value and the number one Pillar in the company's Direction Statement. As the world's Premier LNG company, Qatargas is committed to excellence in workplace safety, which is reflected by a Total Recordable Injury Rate (TRIR) consistently below the industry average.

Qatargas is aligned with large, inter-governmental organisations such as the International Labour Organisation (ILO), Organisation for Economic Cooperation and Development (OECD) and the World Health Organisation (WHO) that have addressed the concern of occupational health and safety by providing a set of guidance, standards and principles for companies to follow. The ILO has set standards and principles for occupational health and safety that are to be ratified and adopted by all member countries, including Qatar. The OECD analyses data on occupational health and safety and presents recommendations to be adopted by local governments, employers such as Qatargas, and workers to ensure workplace safety. The WHO constantly promotes the improvement of working conditions in order to improve public health and health systems development; recommendations adopted by Qatargas for all its operations.

Additionally, Qatargas is aligned with and ratifies the Occupational Safety and Health Administration (OSHA), International Association of Oil & Gas Producers (IOGP) and Phillip Townsend Associates (PTAI). OSHA's mission is to ensure safe and healthy working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance. IOGP serves industry regulators as a global partner for improving safety, environmental and social performance. It is a uniquely upstream forum in which members identify and share knowledge and good practices to achieve improvements in health, safety, the environment, security and social responsibility. PTAI is the leader in global benchmarking solutions with programs custom designed with the objective of delivering validated, comparative information that can be easily used to make decisions and take actions. In 2019, there was complete alignment of Qatargas reporting strategies with PTAI and IOGP.

Within the context of these international standards and recommendations, the state of Qatar has established laws and regulations to ensure the protection of occupational health and safety. Several laws and ministerial decisions generally addressing safety in the workplace existed prior to 2004. However, Law No (14) of 2004 promulgating the Labour Law in Qatar ("Labour Law") laid the foundation on which subsequent health and safety related decisions and amendments have been based. Many of these provisions,

Key Achievements and Highlights



Laffan Refinery 1 Marks **10** Years of Operation without Lost Time Incident (LTI)

Launch of Fundamentals of Safety Leadership training

Qatargas Awarded **ISO 45001** Certification for Occupational Health & Safety

Worked **84** consecutive days injury free Oct-Dec 2019

1 LTI and 5 Recordable Injuries for employees

48% reduction in high-potential events compared to previous year

25% more planned inspections vs target on worker welfare, food and hygiene

40% reduction in contractors LTI (with 0.05 LTIF), compared to previous year

95% customer satisfaction for Qatargas Medical services

whilst general in nature, have helped clarify the respective responsibilities between Qatargas and its employees in relation to on-site health and safety. In fact, a major part of the Labour Law relates to safety, health, and social care.

Our safety programs are designed to reinforce the safety culture for all personnel in all locations. We operate on the principle that all incidents are preventable when everyone starts and completes each task in compliance with safety regulations. Our programs engage all layers of the organisation by incorporating safety measures specifically targeted at leadership, supervision, and workers. Influential leaders play an important role in making our Incident and Injury Free (IIF) workplace a reality.

Workplace safety at Qatargas covers a large and varied set of procedures and processes, from personal safety, which protects our individual workers, to operational and process safety, which focuses on the equipment and processes that keep hydrocarbons and other hazardous substances contained. Personal and process safety work together to ensure responsible development and production of natural gas and oil - providing the essential products that make modern life possible while keeping our workers and local communities safe.

Our occupational health and safety journey during the reporting period is presented in the following sections and highlights our performance on OHS leadership and committees, details of our key achievements, OSHS management and KPIs, trainings, asset integrity and process safety, and contractor's OHS management.

Material Topic	Alignment to GRI	Alignment to UN SDGs	Alignment to QNV 2030
Workplace health and safety	GRI 102, 403, 404,	SDG 3, 8	Social
Process safety	410, 416	5063, 6	Development

Occupational Health and Safety (OH&S) Leadership

Leadership, commitment and active support from Qatargas top management are critical for the success of our OH&S management system and for the achievement of our goals. We demonstrate our management commitment by recognising and accepting accountability and objective decision-making. Our senior management prioritise safety throughout our company's operations and in all communications to our employees and external stakeholders.

The Health, Safety, Environment and Quality (HSE&Q) Group at Qatargas is organised into five main divisions: Centre of Excellence, Environmental Affairs & Regulatory, Emergency Response & Security, Process Safety & Risk, and Safety and Occupational Health. The organisation chart for the HSE&Q Group is shown below.



Our leadership demonstrates their commitment to occupational health and safety with Qatargas' Life Saving Rules (LSR). These ten consistent and concise rules help provide safety guidelines to our workforce on site and constantly promoted and communicated across our company via various channels. An accompanying LSR procedure exists to provide detailed information and implementation of the LSR. At Qatargas, our compliance to the LSR is mandatory for everyone, including those operating company vehicles and contractors/suppliers on our sites. The LSR trainings include computer-based learning modules and face-to-face workshops to educate our contractor workforce on the rules, their importance

LIFE SAVING RULES





Work with a valid Work Permit when required

Protect yourself against a fall when working at height



Always wear your seat belt



when required



Verify isolation and demonstrate zero energy before work begins. Use specified life protecting equipment

Never walk under a suspended load



Obtain authentication While driving, do not use before entering a vour phone/radio and do not exceed speeed limits confined space



Obtain authorisation before overriding or disabling safety critical equipment

Do not smoke in prohibited areas

Figure 5: Qatargas' Ten Life Saving Rules

and the consequences of non-compliance.

Qatargas' approach to continuously improve our occupational health and safety performance is to acknowledge past success and embrace new challenges to sustain an Incident and Injury free (IIF) workplace by:

- Enhancing hazard identification and minimising our risk tolerance by improving quality of pre-task Tool Box Talks (TBT) and Job Safety Analysis (JSA) implementation through enhancing supervisor safety accountability and knowledge.
- Continuously promoting our peer-to-peer safety intervention, such as utilising Stop Work Authority when observing unsafe acts or conditions.
- Further integration of our Qatargas and contractor safety teams to drive a 'one team' approach for safety representatives.
- Preventing high potential incidents by robust application of our Lessons Learned process.

The Qatargas Management System (QGMS) ensures compliance with any legal requirement, such as the Qatar Labour Law (Law No. 14 of 2004), with no resulting compliance issues reported. Our leadership maintains effective communication through several channels. The guarterly Safety, Health and Environment (SHE) Network meeting is one channel where our occupational health and safety performance is reviewed, and topics of interest are discussed. Additionally, several HSE&Q reports are regularly shared with our shareholders, providing updates on various subjects of OHS performance and maintaining shareholder satisfaction with the transparency and quality of data provided. It was observed that there is a growing interest from shareholders in the Lessons Learned generated from multiple Qatargas operations. It is these Lessons Learned that are helping us to continuously improve processes within the organisation.

'Ensure Protection' is part of QGMS and consists of the 10 processes highlighted below. These processes aim to ensure the highest safety standards in our operations and maintenance, wellbeing of Qatargas employees, contractors and visitors, compliance with environmental regulations, and incidents management and investigation. The processes are revised and updated when the need arises and in a timely manner. In 2019, the 'Report and Manage Incidents' Ensure Protection process was revised.



The Ensure Protection Steering Committee (EPSC) was established to provide governance of HSE&Q related processes. This is a committee comprised of Qatargas leaders, including Chief Officers for HSE&Q, Operations, Subsurface, Engineering and Projects. All EPSC meetings were conducted as per the approved plan and the Ensure Protection Assessment was conducted by independent Subject Matters Experts (SME). The Ensure Protection process is a set of standard procedures, practices, systems and tools that recognise hazards, assess associated risks, and identifies and implements the required controls to mitigate those risks. The EPSC has a defined committee charter that establishes their purpose to monitor performance and ensure effective continuous improvement of the Ensure Protection L3 processes and other Operational L3 processes that have a direct

interface. The committee provides senior management governance and process reviews regarding process interfaces that may have a broad strategic impact on Operations.

For incident management, our priority is prevention, rather than cure. However, when incidents occur, procedures and systems are in place to ensure that thorough investigations are conducted to understand why they happened and what corrective actions need to be applied to prevent recurrence. Insight learnings is a core part of our Report and Manage Incidents process. Learnings from incidents are shared with all our employees and shareholders.

Management maintains communication through EPSC meetings with additional regular meetings with Process



Owners and Champions to assist in annual process reviews. The HSE&Q Group aims to assist and coach on what is expected to ensure the Management System processes are effective by monitoring and evaluating KPIs, facilitating process reviews, planning and coordinating annual Ensure Protection Assessments and correctly identifying attributions from high potential incident investigations for specific processes. We provide guidance on further actions required to strengthen the process implementation or the effectiveness of improvements. In 2019, our goal was to create and maintain an Incident and Injury Free workplace for our employees and contractors, with our KPIs supporting this goal. The KPI targets are determined every year end for the subsequent year to drive continuous improvement, with targets specified for the forthcoming five years as part of corporate future planning.

Every January, Qatargas issues a video, 'Safe Start', that conveys essential messages from leadership related to our achievements over the past year and the HSE&Q focus area for the coming year. The video is accompanied by a communication package that is shared with all employees and contractors to ensure all parties understand their role in delivering the HSE&Q goals. Four safety campaigns are developed and delivered every year to our employees and contractors. In 2019, the campaigns were:

- Stop Work Authority
- Falling and Dropped Objects prevention
- Hazard Recognition, Risk Tolerance, and Situational Awareness
- Rigging and Lifting safety

One of Qatargas' safety recognition schemes is called 'Good Catch', whereby the best proactive safety interventions that helped prevent a potential incident are recognised and rewarded. The Good Catch Champions are acknowledged by leadership and details of the event are promoted across the company. Qatargas also has the IIF in Action reporting process, where employees and contractors are encouraged to report their positive and negative safety observations using either the electronic or paper-based system. This process is in place to support the IIF Safety Culture by enabling individual contribution to the common goal of an Incident and Injury Free workplace. The mechanism of the process ensures these observations and concerns are followed up and addressed with the right controls.

Numerous and regular safety meetings take place between management and employees, where safety performance is reviewed, and safety focus areas and topics are discussed. As an example, the SHE Committee meeting involves Qatargas senior leadership from all assets including the CEO, while the Asset SHE Committee meetings are more focused on asset day-to-day HSE&Q issues. The 'Safety Moments' initiative begun in March 2019 with the aim of regularly highlighting a variety of safety topics before the start of any meeting. These topics are centrally developed on a monthly basis and selected based on most valid observations and incidents of a period and shared across all Qatargas. In 2019, the Safety Moments included:



In 2019 the HSE&Q leadership team attended the International Oil & Gas Producers (IOGP) conference where health and safety performance was discussed with representatives from numerous oil and gas companies.

All IOGP communications, data, and Lessons Learned were shared across the company.

To support management's commitment to occupational health and safety at Qatargas, several committees exist to oversee different safety aspects in the workplace. The Life Saving Rules Steering Committee enforces compliance with the LSR and governs its implementation throughout the organisation, according to the disciplinary action Fair Play Model and LSR Procedure. This committee includes leaders from maintenance and manufacturing that closely monitor and promote LSR compliance from employees at Qatargas facilities. As a result of improved communication, awareness and site controls, there was 42% improvement in terms of LSR compliance in 2019 compared to the previous year. This includes 90% fewer speeding violations. Life Saving Rules compliance remains high on the HSE&Q agenda of Qatargas.

POSCO (Plant Operation Safety Committee) meetings for the Qatargas South site are conducted on a monthly and guarterly basis, whereby Operations staff share their safety concerns and challenges with Operations management. Similarly, the Qatargas SHE Committee for the Qatargas North site is chaired by the CEO. This committee discusses the monthly SHE highlights, major incidents, Lessons Learned, and conducts monthly site visits. Similarly, at the asset level, the Asset SHE Committee, led by asset managers, includes representatives from all functions operating within the asset. The Asset SHE Committee conducts monthly site visits and coaching around asset sites to recognise opportunities for further health and safety improvements. Additionally, a Hazardous Material Committee works with the Industrial Hygiene team to regulate acceptance and use of chemical substances in the company.

At regular intervals, the HSE&Q Group undergoes a rigorous internal audit programme. There are four tiers of audits:

- Corporate internal and external audits
- Ensure Protection assessment by independent SME
- Self-assessments by process owners
- Self-inspections by process users

Tier 1 audits are internal audits that are conducted every two to three years. Shareholder audits are conducted every one to two years, and ISO audits are conducted annually. Tier 2 and 3 audits are conducted annually. Tier 1 audits are audits to verify compliance, whereas Tier 2 and 3 audits are for compliance, and to verify the degree to which the process is effectively implemented. They also identify improvements regarding effectiveness and efficiency. In 2019, no non-conformities were observed during the ISO audits.

In 2019, the most significant milestones achieved included initiation of the High-Risk Activities checklist and roll out of

a new JSA procedure. We were awarded ISO certifications, including ISO 45001, for the newly integrated company which is a great achievement. Our management empowers first-line supervisors through extensive health and safety training programmes. Fundamentals of Safety Leadership Training for Qatargas supervisors and management was rolled out in 2019, consisting of two-day sessions including presentations and workshops that are designed to refine the SHE skills and behaviours of our first-line supervisors. This is in line with the culture of workplace safety that is cultivated by Qatargas management throughout our organisation.

In 2019, Qatargas worked towards unifying its Incident Reporting System (IRS) management tool across the organisation. This is a new SAP-based electronic tool that that was customised for the company's needs, and is used for reporting both incidents and safety observations. Required updates were made to the system to accommodate process changes arising from the merger by adding new functional locations, positions and features to ensure robust workflows and a better user experience. Training new users started in October 2019, and work is in progress to strengthen IRS as a single tool to report and manage incidents across the organisation.

Qatargas had two learning and development digital platforms in 2019, inherited from the two legacy companies that merged in 2018: Learning Solutions Online (LSO) and SuccessFactors Learning Management System (SF LMS). In 2019, we completed the integration and migration of the data from LSO to SuccessFactors. The migration was a major exercise conducted throughout the year. The validity of the safety trainings is based on various factors, such as criticality, international best practices, risk factors, incidents, etc.

Overall, the OH&S Leadership engagement is therefore critical for implementing an effective safety culture in an organisation. By adopting and prioritising occupational health and safety in all operational decisions, management lead by example for the rest of the workforce to follow. Qatargas leaders demonstrate their commitment by participating directly in coaching safety discussions and workshops focused on ensuring safe and secure operations.

Safety and Occupational Health Management

Qatargas' direction on occupational safety at the workplace for all our employees begins with the HSE&Q (Health, Safety, Environment, & Quality) Policy endorsed and implemented by senior management. The current HSE&Q policy has been effective from March 2018 and is valid until March 2021. This policy is reviewed annually by

Safety, Health, Environment & Quality (SHE&Q) Policy



Our Values

To be the industry leader in SHE&Q performance which includes the protection of the health and safety of our people and of those affected by our business, the protection of our physical assets and reputation, and the protection of the environment.

Qatargas Safety, Health, Environment & Quality Policy cascades from our Direction Statement; thus:

We protect our people by upholding the highest standards for safety behaviours, and believe that all incidents and injuries are preventable.

We protect our assets and the environment by being compliant and aware of our impact.

We promote a culture of excellence and ownership of SHE&Q to enable consistent delivery of all Qatargas processes effectively and efficiently.

We believe safe and environmentally responsible operation and maintenance of our facilities is a critical success factor.

In this:

We comply with all applicable SHE&Q laws and regulations and apply responsible industry standards and prudent practices, where laws and regulations do not exist.

We make a positive contribution to the protection of the environment and reduce, to the minimum practicable level, any adverse effects of our operations on the environment.

We recognise that SHE&Q is everyone's responsibility and that we each have a duty to intervene to prevent unsafe actions and to reinforce good behaviours.

Our goal is an Incident and Injury Free workplace - it is not just the end result that matters, we also care about how we get there.



Implementation

We will:

Ensure that all management decisions reflect our SHE&Q commitment.

Ensure that our QG Management System (QGMS) reflects industry best practice and is properly resourced.

Employ a risk-based approach to the design, construction and operation of facilities across their full life cycle and aim for As Low As Reasonably Practical (ALARP) risk in our operations.

Implement industry accepted best practices in SHE&Q and learn continually from our shareholders, contractors and other partners' experiences.

Provide direction, education, training, and supervision to ensure all employees understand the required SHE&Q behaviours and expectations, and demonstrate visible SHE&Q leadership. Compliance is essential for career advancement.

Ensure our contractors understand our expectations and share our commitment, understand their SHE&Q accountabilities and required SHE&Q behaviours, and are aware of the consequences of non-compliance.

Continually review, monitor and audit our SHE&Q performance and its sustainability so that personal and process safety incidents are eliminated; we reduce waste, prevent pollution, and control emissions.

Plan, exercise and prepare, train and exercise the response team members to ensure timely and effective response to all emergencies, in cooperation and support from established mutual aid and local governmental agencies.

Communicate with all employees and the community on matters that may affect their safety, health and environment.

Publicly report on key SHE&Q objectives and performance, fully co-operate with relevant government agencies, and work closely with the industry to improve SHE&Q practices.

Comply with this Policy and drive SHE&Q improvements by setting expectations and objectives.



our leadership team and executives during management reviews to ensure alignment with current best practices and continuous improvement. The purpose of the policy is to establish Qatargas commitment to achieving premier business performance by maintaining the highest health, safety, environment and quality standards and continually improving the effectiveness of HSE&Q management and performance. It covers the key risks and controls, HSE&Q values and policy implementation.

The HSE&Q Group at Qatargas ensures that it maintains and complies with key legal and regulatory requirements that are related to its activities. These compliance and legal requirements include: Ministry of Municipality and Environment (MME) Decree Law No. 31 of 2002 Protection from Radiation; NORM Law decision of the Minister of Environment No. 45 of 2013; SCENR Decree No. 2 of 2005 on Doses of Radiation Worker; and SCENR Decree No. 4 of 2003 on the Amended executive draft of Law No. 31 of 2002. No compliance issues were recorded in 2019.

At Qatargas, we have implemented a robust and new occupational health and safety management system, based on the international standard ISO 45001 which we were awarded in September 2019. This is a landmark achievement as Qatargas is one of a few oil and gas companies in the region to achieve this new certification. This achievement demonstrates Qatargas' commitment to the company's Direction Statement, which actively promotes effective HSE&Q management aspects of all our operations. It also demonstrates the high standard and performance of our management system processes that are built on the dedication and continual improvements efforts of our leadership team and employees.

One of the biggest HSE&Q Group restructures in 2019 was allocating the Industrial Hygiene section from Qatargas Medical Department to the Safety and Occupational Health Department. This department was developed to revise existing programs, and to introduce new industrial hygiene and occupational health programs. The industrial hygiene practices at Qatargas are aligned with the American Industrial Hygiene Association (AIHA) and the American Conference of Governmental Industrial Hygienists (ACGIH). The Health Risk Assessment process implementation was one of the key stakeholder expectations during 2019, which was implemented and signed off by the respective assets. One of the main achievements of the year was the revision of QGMS L3 Ensure Occupational Health (HLT) procedures that was completed to ensure procedures are up-to-date and applicable. In 2019, we also participated in the Qatar Petroleum cold-eye review for mental health workers.

One of the ongoing tasks of the Safety and Occupational Health Department is to routinely update current processes and procedures and, when required, introduce new procedures. In 2019, a new procedure was introduced, 'Industrial Hygiene and Occupational Health Programs Management'. Existing procedures that were revised include Corporate Standard for Food Services, Noise Control and Hearing Conservation, Office Ergonomics and Manual handling Guidelines, PPE, Potable Water Sampling, Radiation Protection, Respiratory Protection Program and Standards for Contractor Camp's Living Conditions. Furthermore, the Industrial Hygiene and Occupational Health Programs Management procedure prompted the creation of new systems and policies including:

- Asbestos Management Plan
- Fatigue Risk Management
- Health Risk Assessment Methodology
- Lead Management Plan
- Legionella Management Plan
- Managing Naturally Occurring Radioactive Material (NORM)
- Radiation Protection Nucleonic Gauges

Workers are safeguarded from potential radiation through the implementation of the Qatargas Radiation Management Programme. This ensures every effort is made to mitigate risk of radiation from potential radiation sources at our facilities. All radiation sources and activities related to them are managed and operated according to the regulations set by the MME. The department represented Qatargas during the NORM Forum in Radiation Protection Workshop, hosted by MME in 2019. The event introduced the Legislation on NORM Law decision of the Minister of Environment No. 45 of 2013, which Qatargas fully complies with.

As per Qatargas' requirements regarding HSE&Q plans and emergency mitigations, an effective shutdown management system is in place to facilitate the shutdown process safely. A total of five planned shutdowns were executed successfully in 2019, each one requiring an immense undertaking involving thousands of our onsite employees and contractors working cohesively and safely. Our contractors involved in shutdowns receive training and orientation on potential hazards they may encounter to guarantee safe execution of each process. In 2019, the Shutdown induction was modified to include fatigue risk management awareness. All these efforts focus on ensuring minimal and acceptable risk to Qatargas workers and assets. The department received positive feedback contributions from all assets for industrial hygiene support during the 2019 shutdowns.

Our employees and contractors are our greatest asset. As such, we ensure that we provide due diligence to their welfare and personal safety. In 2019, we conducted 25% more planned inspections than scheduled for worker



welfare, and food and hygiene safety. We experienced zero food safety and fatigue related incidents in the year. We were also able to successfully achieve zero heat stress related recordable illness incidents during shutdowns. The Industrial Hygiene section represented Qatargas during the Worker's Welfare Forum hosted by Qatar Petroleum in 2019. The event provided insights into the expectations and management of contractor living conditions, which presents challenges to ensure contractor compliance with living quarters. This is an ongoing effort in 2019 and beyond.

Our contractors are protected by an enhanced Contractor Safety Management System (CSMS) that emphasises safe handling of tools in the workplace by following set procedures. The CSMS was developed in cooperation with contractors and stakeholders to create a safe work environment for everyone at Qatargas facilities. The system ensures that technical processes set by management for company facilities are respected and conducted safely. The CSMS is supplemented by a Qatargas Safety Contractor Forum which provides Qatargas, stakeholders, and other local companies in the oil and gas industry, the opportunity to meet, exchange knowledge and share best practices for maintenance of contractor safety. In 2019, we achieved a major financial accomplishment through optimised management of contracts utilised for equipment calibration, with ongoing work on further integration into a single contract that resulted in 25% savings from our planned budget.

The Occupational Health and Safety Management System sets the foundations for other management systems at Qatargas, such as the fire and gas detection systems that controls Process Safety Events (PSEs) in early stages during field operator surveillance. The main channels of communication for the department to connect with employees and stakeholders is through industrial hygiene and occupational health reports, asset meetings and safety walks, and SHE communications, such as the monthly Safety Moments.

Qatargas OHS Performance

The main KPIs for occupational safety in 2019 are presented in the table below.

KPI	Unit	2019 Target	2019 Performance
Total Hours Worked (Employees)	Hours		10,321,762
LTI (Employees) (LTI)	#		1
LTI Frequency (Employees) (LTIF)	#		0.10
Recordable Injuries (Employees) (RI)	#		5
Total Recordable Injury Frequency (Employees) (TRIF)	Recordable Injury / Million Man-Hours	0.45 (2025)	0.48
First aid cases (Employees)	#		6
Occupational Illness Rate	#	0.07	0.04

Although total work hours for our employees decreased from 2018 to 2019 by 202,210 hours (2%), the LTI rate for employees increased by 1 and the LTIF increased by



0.10. Similarly, both the total Recordable Injuries (RI) and the Total Recordable Injury Rate (TRIR) increased by 2 and 0.20 from the previous year, respectively. The reason for the slight increase in occupational safety incidents is due to a few recordable incidents related to execution of routine activities caused by trips and slips. In addition, the company observed 84 consecutive days of injury free work between 6 October and 30 December 2019. The 2019 Corporate TRIR was 0.42 which is below the 2018 International Association of Oil and Gas Producers (IOGP) average of 0.99. During 2019, we witnessed a steady decline in the number of high potential events, with a 48% reduction compared to 2018. This could be attributed to the 42% improvement achieved in terms of Life Saving Rules (LSR) compliance compared to the previous year. This is testament to our effective leadership and health and safety management systems in place at Qatargas.



Figure 6: Employee KPI's for Occupational Safety in 2019

Our exceptional safety performance at Qatargas in 2019 was further maintained by the introduction of several safety campaigns throughout the year. These campaigns engage all workers to focus on specific safety topics while ensuring continual safe operations in their job duties. An example of a safety campaign launched is the revamped Incident and Injury Free (IIF) in Action programme, with the objective of adopting IIF requirements and LSR in everyday tasks for various departments during routine work activities. This campaign is a continuation from the previous year and the objective was to continue delivery to Qatargas newcomers and contractors. In 2019, the Centre of Excellence rolled out IIF in Action at Qatargas South Barzan site. Similarly, a 'Permit to Work System' (PTW) campaign was launched to retrain all workers, including contractors, on the different permits available and in which situation to use each. These refresher trainings were conducted as part of workshops throughout the year for all departments. The training also covered the approval process from management's side, and tips to ensure permit requests are approved immediately.

Data for total number of permits issued in 2019 for QG-South and QG-North Assets (including Shutdown permits)

Month	Total No. of Permits (QG-South)	Total No. of Permits (QG-North)
January 2019	11,024	30,546
February 2019	9,669	29,915
March 2019	12,490	26,080
April 2019	18,075	29,526
May 2019	10,408	29,364
June 2019	8,182	22,980
July 2019	9,585	20,499
August 2019	6,734	16,042
September 2019	9,739	20,323
October 2019	17,088	28,198
November 2019	11,645	25,635
December 2019	10,611	26,474
2019 TOTAL	135,250	305,582

Other safety campaigns deployed during 2019 focused on properly following procedures and practices with an emphasis on hazard identification. These campaigns included Power Tools Safety Campaign (centring on hydro jetting and blasting activities), Prevention of Falling and Dropped Objects, and Risk Tolerance and Situational Awareness. In 2019, employees who participated in these campaigns received training and were able to demonstrate better incident reporting as a result.



Safety Trainings

As part of continuous improvement efforts, at Qatargas we aim to review and maintain knowledge on evolving health and safety requirements, and accordingly we upgraded our training programmes and methods for 2019 to improve the competencies and skills of our workers. Safety trainings and training modules are updated and revised on a regular basis as a result of lessons learnt from incidents and changes in procedures. Existing programmes were reviewed for improvements as the company developed and implemented a revised training matrix with expectations. A series of other training programmes were updated to align with Qatargas best practices, demonstrating commitment to high safety performance and development of employees.

The following trainings were delivered to the various stakeholders who visited and worked in Qatargas premises during 2019:

Trainings delivered to the stakeholders who visited and worked in Qatargas premises during 2019

→	Plant Safety Induction
→	Visitors Induction
→	H2S Effects and Escape Hood
→	Life Saving Rules
→	Defensive Driving
→	Heat Stress Awareness
→	Confined Space Entry
→	Safety Watch/ Hole Watch
→	Safety at Heights/ Working at Heights
→	Manual Material Handling
→	Authorised Gas Testers
→	Job Safety Analysis
→	Hazardous Materials
→	Incident Reporting & Investigation
→	Work Management System
→	Shutdown Inductions (specific to each shutdown)
→	Acid Gas Injection
→	Incident and Injury Free for Workers
→	Port Security Awareness (computer-based training only)
→	QGHQ Doha Tower Safety Induction (computer-based training only)

In 2019, HSE&Q delivered in-house trainings to our employees on Fire Safety Awareness, Fire Watch, IIF for Supervisors, Self-Contained Breathing Apparatus (SCBA), Permit to Work (PTW), iLOTO, and Electronic Permit to Work (ePTW). A total of 233 PTW trainings covering topics specific for permit issuers, receivers and ePTW were delivered in 2019. During the same year, the Acid Gas Injection training ceased, and trainings on Work Management Systems and Qatargas Headquarters (QGHQ) Doha Tower Safety Induction training received major rework to make them both fit-for-purpose. As previously mentioned, the Centre of Excellence section in HSE&Q introduced the Fundamentals of Safety Leadership training in 2019 to provide SHE skills for front-line supervisors.

The focus in 2019 was to introduce and rollout the IIF Safety Culture Program at the Qatargas South Barzan site, which was successfully completed. The target with IIF is to take us all the way to an Incident and Injury Free workplace. We have accomplished a lot and are continuing to create a safe working environment. The second focus area was to continue delivering the IIF training for newcomers across all Qatargas premises, where it is compulsory for all new Qatargas employees and contractors working on our sites to attend an IIF 'orientation' as part of their initial induction. This is an introduction to the IIF culture, an opportunity to reinforce our commitment to each person's safety, and to raise awareness levels of health and safety by making it personal, relevant and important, so it impacts our choices and actions and inspires each and every one to take responsibility for their own safety as well as that of their colleagues.

In 2019, the Safety and Occupational Health Department conducted Food Safety and Hygiene trainings for our catering contractors and catering teams. This is part of the Industrial Hygiene training programme which allows trainees to assess personal hygiene rules, temperature control and other critical aspects of food safety. This enables them to lead improved food safety inspections throughout our worksites in 2019 and safeguard the health of our workers.

Qatargas has a robust safety training management system to manage the training requirements of our contractor personnel participating in turnarounds and shutdowns. The key elements of this system are the Shutdown Contractor SHE Training Matrix, Mobilisation Plan, Training Requirements Plan, and Final Report. In addition to this, for each turnaround, a Shutdown Specific Induction training module is prepared, and it is mandatory for all personnel participating in the turnaround operation to compete this training module. This Shutdown Specific Induction contains the following information as a minimum:

- Theme for the Shutdown/Focus Areas
- Details of the Shutdown Area (location of the area, welfare facilities, muster points, waste collection points)
- Access Control and Traffic Plan
- Shutdown Specific Hazards and Controls
- Emergency Action Plan
- Waste Management Plan
- Lessons Learnt from the previous shutdowns/ incidents

The Shutdown Specific Induction is valid only for the respective shutdown. For our employees, the training needs are managed using the Learning Management System (LMS). However, for the employees participating in shutdowns, the Safety Training section provides the Shutdown Specific Induction module as a classroom session, or digitally as a computer-based training (CBT). These trainings ensure the safe execution of each shutdown process and procedure.



Heat Stress Management

Qatargas recognises that heat stress and associated incidents management is crucial to healthy working conditions and the safety of our workers. We have maintained a strong performance record regarding both heat stress incidents and occupational illnesses across the organisation. Qatargas maintains a proactive approach to heat stress management while ensuring immediate and effective handling of Medical Treatment Cases (MTCs). This proactive approach is necessary since Qatargas operations are in an environment that experiences intense heat for most of the year, and also involves plant processes that generate high heat levels, all of which could contribute to potentially acute heat stress illnesses. The Industrial Hygiene section is tasked with the responsibility of managing the Heat Stress Management Procedure, with the support of various stakeholders.

One of the ongoing tasks related to heat stress management is to routinely update the current processes and procedures. As such, the Industrial Hygiene section of the Safety and Occupational Health Department maintains and updates the Heat Stress Prevention Management Procedure (HSMP) to manage and control heat stress impacts. In 2019, this procedure was updated to include revisions to:

- Hierarchy of Controls
- What is Heat Stress
- Heat Stress Plan
- Quick Guide to Heat Index Local Monitoring
- Flag Colours in the Heat Index Table
- Heat Stress Alert Category
- Preventative Heat Stress Work Practices to Minimise the Effect of Heat Exposure
- Heat Stress Awareness
- Heat Index Announcement and SMS Protocol
- A map showing the location of the centralised heat index monitoring station

The Safety and Occupational Health Department works diligently to prepare our workforce to manage their workload during summer months without endangering their health. The HSMP establishes rules for working in hot conditions, and how to manage heat stress-related incidents. The HSMP is based on the Heat Stress Guidelines set by Industrial Cities Directorate, IPIECA, Occupational Safety and Health Administration (OSHA), and Qatar's Supreme Council of Health recommendations.

The Safety Moments initiative launched in 2019 is a platform to highlight a variety of safety topics on a monthly basis, and information is shared with all our



employees. In August 2019, the Safety Moments were dedicated to heat stress awareness, with a topic theme 'Beat the Heat'. Shutdown contractors must undergo trainings and refresher trainings on managing heat stress

and acclimatisation. In 2019, the heat stress awareness training was offered as a revised computer-based training. These annual trainings must be completed prior to the start of the heat stress season. Furthermore, the monthly departmental safety meetings present combined heat stress, first aid and CPR mandatory training for all attendees.

KPI	Unit	2019 Target	2019 Performance
Medical Treatment Cases (Employees)	#		1
Medical Treatment Cases (Contractors)	#		1
Heat Stress Trainings (Employees)	#		3,608 personnel (CBT Training)
Heat Stress Trainings (Contractors)	#		15,627 personnel (Classroom Trainings)
Black Flag Incidents (Heat index >54)	#	0	We had 2 Heat Stress related incidents in 2019 and both of them were in condition of below 54 Heat Index.
TROIR	#	0.07	0.04

In the same year, we experienced only two heat stress events for employees and contractors, compared to three events the previous year. This has resulted in a 67% reduction of heat stress events for contractors in 2019, compared to 2018. Additionally, this corresponds to a total reduction by 33% for heat stress related recordable illness incidents in 2019, compared to the previous year. Particularly during shutdowns, we witnessed zero heat stress related recordable illness incidents. All affected personnel returned directly to work following basic medical treatment. Incident investigation identified that adequate controls were in place at the site of every MTC, however improvements could be made in the worker on-boarding process, acclimatisation needs, and management of preexisting medical conditions.

Qatargas continued introducing measures to aid heat stress management while updating existing guidelines based on new findings. In 2019, we mandated the use of air-conditioned rest shelters across Qatargas North assets. The scheme has continued to be successful, as it provided a marked improvement in heat stress management performance at the site. All sites completed implementation of air-conditioned rest shelters in 2019.

Furthermore, Qatargas aligned the Heat Index Flag System across all our sites and introduced localised measurements of heat index in specific work areas. A record of the end of the heat season was made to ensure readiness for situations where the heat season is extended. This foresight proved useful in 2019, as the heat season was extended from 1st April 2019 to 31st October 2019, extended by one additional month. This pushes the organisation to prolong necessary measures in order to preserve the health of the employees as a priority.



Process Safety and Asset Integrity

Over the past few years at Qatargas we have continuously improved our process safety performance. In 2019 we were able to successfully operationalise the Safety Case for onshore assets, and we implemented an integrated risk management process across all Qatargas facilities. In terms of our interaction with the community and industry, we signed a commemorative Memorandum of Understanding (MoU) with Texas A&M University at Qatar and ConocoPhillips Qatar. The MoU, which was signed by Khalid Al-Hemaidi, Chief HSE&Q Officer at Qatargas, who officiated the commitment of the signing parties to host the annual Qatar Process Safety Symposium in the future. In 2019, the two-day symposium provided delegates from industry, regulatory institutions and academia with the opportunity to share safety success stories, incident case studies, best practices, and recent advances of research on process safety.





Figure 7: Framework for Manage Operations Risk (MOR) process

The Process Safety and Risk Department is responsible for process safety and risk management at Qatargas. One of the ongoing tasks of the department is to routinely update their current processes and procedures, and when required, introduce new procedures. In 2019, the new procedure introduced to effectively control process safety was the new QGMS L3 Manage Operations Risks (MOR) process. This was introduced to identify, evaluate and manage operations (HSE&Q and financial) risks for all QG operated facilities. Furthermore, an MOR SharePoint Tool (Phase 1) was developed to track the performance of operations risks. In addition, the Process Safety Department delivered a new risk management training suite in line with the new L3 MOR Process in the same year. This suite included L2 Risk Assessment training for participants, Risk Screener training, Level 3 RA Facilitator training, Mitigate Volume Threats (MVT) training.

KPI	Unit	2019 Target	2019 Performance
Tier 1 PSE	#	0	4
Tier 2 PSE	#	0	3
Tier 3 PSE	#	N/A	2



Figure 8: Process Safety Events from 2013-2019

For our 2019 performance, we experienced four Tier 1, three Tier 2 and two Tier 3 PSEs in 2019, which represent a 1, 0 and 2 count increase in the number of PSEs from 2018, respectively. Most PSEs were discovered in their early stages during field operator surveillance and were immediately controlled before the activation of the fire and gas detection systems. This demonstrates the effective implementation of field operators proactive monitoring across all our assets.

Tier 1 Events	Tier 2 Events	Tier 3 Events (High Potential)
Hydrocarbon leak at refinery corridor piping	During inflow integrity test, activation of H2S detector due to opening of a bleed valve of PG	Minor sour gas/ condensate leak from 3/4" drain weld joint at 6" pressurisation line joining slug catcher gas outlet
Leak from off gas compressor A due to tube detachment from root valve	Hydrocarbon leak from de- methanizer reboiler channel head during start- up	During an inspection by Piping Supervisor, it was identified that a Pipe Fitter was trying to loosen a bolt on a flange outside their scope of work
Activation of toxic gas detectors by LP flare line leak	Fire observed at Gas Liquid BAHX Exchanger Feed Gas Inlet nozzle	
Propane gas leak due to detached tubing		

All Tier 1, 2 and 3 events were managed and remedied appropriately to ensure no reoccurrence in the future. A thorough incident investigation process is used to identify the root causes and lessons learnt so that this can facilitate continuous improvement of our systems and processes and prevent recurrences. After the integration process, significant efforts have been expended into harmonisation and integration of various process safety practices, including identification of risk-related processes, procedures, key performance indicators, etc.

An integrated risk management process was implemented across our facilities along with the development of a new and harmonised L3 Ensure Process Safety (PRS) processes. The key objective of PRS is to demonstrate throughout the asset lifecycle, that process safety risks associated with major hazards are managed to as low as reasonably practicable (ALARP) through effective barriers. A project is in place to implement the process through pilots and using a stage-gate approach with the objective to operationalise safety case and develop an effective barrier management system. This system will enhance understanding of major accident hazards and will help to ensure healthiness of barriers to prevent/mitigate major incidents, while enhancing engagement, support and accountability of personnel in various level in the organisation for major accident hazards and their barriers.

The company places a high priority on preventing significant Ensure Process Safety (PRS) deviations by enforcing compliance with its robust asset integrity management programmes, which outline stringent guidelines to secure hazardous material through a safe containment process. In 2019, two key risks were identified which included continued operation of the Regen Heater and propagation of cracks in austenitic SS piping. Both risks have a permanent solution identified which is yet to be implemented in the coming years. Both key risks are currently being managed effectively.

In the pursuit of Process Safety Event (PSE) prevention, we have implemented exhaustive surveillance practices of its processes and operations. Other measures include regular inspections, detailed equipment strategies and testing and maintenance of equipment in accordance with strict performance requirements. Additionally, Qatargas continued with periodic revalidation studies such as



Hazard and Operability (HAZOP) Study, Quantitative Risk Assessment, Safety Integrity Level, and Safety Case. Together, these form the Qatargas Annual Process Safety Insight Analysis. From the 2019 Qatargas Annual Process Safety Insight Analysis, one of the key focus areas was operationalising safety cases for onshore assets.

Main themes of the 2019 Qatargas Annual Process Safety Insight Analysis

Thermal Cyclic

- Focus on understanding the phenomenon associated with thermal cyclic stresses
- Key focus BAHX exchangers & RL1 Regen gas headers

Design

- Compliance with project specifications and lessons learned for ongoing/future projects.
- Due diligence review of design documents, especially waivers and deviations, and appropriate material selection

Corrosion

- Continue integrity programs such as dead leg survey and closure of high priority recommendations
- Corrosion-related projects ensure timely funding and project completion for aging assets

Tubing Failures

- Proactive field operator surveillance, report any vibrations/abnormal situations
- Check root valves functionality on periodic basis

Human aspects and compliance

- Ensure adequate supervision
- Task specific trained personnel and competency requirements including contractors
- Company standards and procedures familiarisation and compliance

Figure 9: Qatargas 2019 Process Safety Events

Crisis Management

To limit the chance of crises taking place at the company's operations that would impact the integrated value chain, Qatargas prioritises preventive measures such as risk prevention or early mitigation. The company is also prepared to address, and tackle crises born out of unforeseen circumstances through the establishment of its Emergency Management and Security Division. This division supervises efforts to prevent and mitigate crises affecting people, the environment, and Qatargas' assets and reputation.

The Crisis Management (CM) section has initiated a number of new and enhanced practices and systems in QG which have contributed to the overall sustainability of the company.

 We implemented the CM Core Capability System with distinct critical elements necessary to achieve the specific competency in emergency readiness, response and recovery. Core Capabilities provide the world-class expectations and emergency functions required by Qatargas to ensure its strategic and tactical readiness within the 95th percentile.

Readiness Capabilities

Pre-Planning

Emergency Operational Coordination

Internal & External Information Incident Warning

Forensics and Attribution

Intelligence and Information Sharing

Interdiction and Disruption

Screening Search and Identity Verification

Access Control and Identity Verification

Cybersecurity

Physical Protection Measures

Risk Management for Protection Programs and Activities

Supply Chain Integrity and Security

Long-term Vulnerability Reduction

Risk and Disaster Resistance Assessment

Threats and Hazards Identification

Response Capabilities

Response Capabilities

Critical Transportation

Environmental Response Health and Safety

Fatality Management Services

Fire Management and Suppression

Logistics and Supply Chain Management

Mass Care Services

Mass Search and Rescue Operations

On-Scene Security, Protection and Enforcement

Operational Communications

Emergency Healthcare & Emergency Medical Services

Situational Assessment

Recovery Capabilities

Business and Operational Recovery

Emergency Response After-Action

 We implemented a new scorecard system (below) for both Tier 1 drills and Tier 2 exercises using the above Core Capabilities. This permits CM and Assets to hyperfocus on key issues which need to be closed in order to maintain readiness in the 95th percentile.

- 3. For 2019, there were a total of 253 Tier 1 drills and 24 Tier 2 exercises held with all quantified using the new scorecards for the first time in QG.
- 4. We developed a new strategy and KPIs for Incident Command Centres in QG. Barzan was the first recipient of this new strategy and their new Type 2 Incident Management Centre was unveiled in December 2019.



Incident Command Marine Surveillance

		TIER 1 PERFORMANCE	Unit	QG 1	0G 2	QG 3 4	CLNG	Laffan Refinery	RLTO	RL 1	RL 2	RL 3	RL Utilities	AKG 1 2	Barzan	Offsites	Offshore	QG Performance
2019		COVID-19 TTX's in addition to 177 Real-World Activations	Total Drills	29	21	28	14	14	29	6	6	5	8	8	14	3	68	253
Critical Response Function (CRF)		DEFINED PERFORMACE STANDARD (S)	POSSIBLE SCORE	SCORED PERCENTAGE	13													
Emergency Operational Coordination	A	Mobilise all critical resources and establish command, control, and coordination structures within the affected area(s), in other coordinating bodies in surrounding area(s) and maintain as needed throughout the duration of an incident.	20	81.38%	93.57%	80.18%	72.14%	80.00%	77.07%	81.67%	80.83%	85.00%	85.63%	86.25%	72.50%	80.00%	75.00%	79.75%
Internal & External Information and Incident Warning	В	Inform all affected segments of GG of critical lifesaving and life-sustaining information by all means necessary, including accessible tools, to expedite the delivery of emergency services and aid n GG employees and external parties to take protective actions.	5	86.21%	80.00%	90.00%	90.00%	88.57%	95.17%	83.33%	96.67%	88.00%	100.00%	95.00%	88.57%	100.00%	95.00%	91.01%
	с	Deliver credible and actionable messages to inform on the current state of the incident and the actions QG and its stakeholders are completing to address the event including protective measures and other life-sustaining actions	5	91.03%	81.43%	92.86%	84.29%	88.57%	90.00%	90.00%	90.00%	96.00%	90.00%	90.00%	77.14%	80.00%	95.00%	89.35%
Environmental Response/Health and Safety	D	Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers.	7	91.63%	97.96%	96.43%	84.69%	97.96%	89.66%	88.10%	92.86%	94.29%	85.71%	89.29%	75.51%	80.95%	89.29%	89.37%
	Ε	Minimise exposure to environmental hazards through assessment of the hazards and implementation of immediate protective actions.	8	86.64%	85.71%	86.61%	86.61%	91.07%	87.93%	87.50%	91.67%	85.00%	90.63%	92.19%	84.82%	100.00%	81.25%	87.83%
Fire Management and Suppression	F	Conduct expanded or extended attack firefighting and support QG operations through coordinated response of fire management and specialised rescue resources.	10	80.00%	88.57%	83.93%	77.14%	84.29%	86.55%	81.67%	88.33%	92.00%	85.00%	82.50%	80.00%	80.00%	85.00%	83.57%
On-Scene Security, Protection, and Enforcement	G	Provide and maintain on-scene security and meet the protection needs of the affected QG operational asset and employees over a geographically dispersed area	5	83.45%	81.43%	82.14%	82.86%	91.43%	87.59%	90.00%	86.67%	84.00%	90.00%	90.00%	90.00%	100.00%	80.00%	86.67%
Operational Communications	I.	Ensure the capacity to communicate with both internal and external emergency response teams and affected QG employees/ contractors on-site using interoperable voice and data communication channels and systems	10	86.90%	80.07%	82.86%	71.43%	74.29%	76.55%	80.00%	75.00%	78.00%	77.50%	77.50%	65.71%	60.00%	80.00%	77.00%
	J	Establish sufficient communications within the affected incident areas to support ongoing life-sustaining activities, continued asset protection and a committed pathway to recovery.	10	83.45%	95.00%	83.93%	75.71%	82.86%	82.76%	81.67%	83.33%	84.00%	77.50%	85.00%	72.86%	83.33%	80.00%	81.04%
Situational Assessment	к	Deliver information sufficient for QS senior-management to render immediate decisions regarding lifesavianig and life-sustaining activities, deployment of external resources, operational disruptions and tasks being completed to bring the incident under control through stabilising efforts.	20	84.31%	91.79%	78.93%	75.71%	81.79%	82.41%	84.17%	84.17%	84.00%	85.63%	77.50%	78.93%	81.67%	83.75%	81.80%
Overall Rating			100	84.55%	89.29%	83.82%	77.71%	84.07%	83.38%	83.83%	85.17%	86.00%	85.50%	84.63%	77.00%	82.33%	82.50%	83.10%

5. Crisis Management implemented a formal Incident Command Training program for QG using the globally recognised ICS program. This program certified QG Assets Managers and their teams in emergency management with an additional 34 AG staff members trained in 2019.



Hazardous Material Management

The Industrial Hygiene team is responsible for updating the Hazardous Material Management procedure at Qatargas. In 2019, the procedure's content was reviewed, revised, and additional information within the Hazardous Substances section (i.e. hazards, consequences, mitigations-personnel, PPE & hygiene precautions, transporting, receiving, handling and storing etc.) was added and various checklists were incorporated.

For the revised procedure, compliance was ensured through the following:

- Approval of new chemicals (either through MDG or e-copies)
- Monthly Hazardous Material Site/ Workplace Audits (including; labelling, SDS validity, implementation of controls measures etc.)
- The use of Chemwatch for retrieving updated SDS
- Implementation of the Health Risk Assessments as it relates to the hazardous chemicals

Manufacturer's Material Safety Data Sheets (MSDS) are used to assess the chemical composition of materials used that contain potentially hazardous chemicals. Any unit using hazardous materials must seek approval from the Hazardous Materials Reviewers. Qatargas' Industrial Hygiene team requests the start of the review process, thoroughly checking for safety hazards in the substance, such as asbestos, carcinogens, mutagenic, or other components that can adversely affect worker health through exposure.

If the material is categorised as hazardous, it is replaced where possible. If replacement is not possible, appropriate

control measures as suggested by the MSDS and the manufacturer are put in place to protect workers and the environment from adverse effects. Management of hazardous waste is directed by the Environmental Department. An MSDS database is maintained and accessible to all employees and contractors. In 2019, the LNG MSDS was reviewed and updated.

Product Handling Procedures Updated to Further Enhance Safety

2019 Air Transport ICAO/IATA for selected SDS

Warehouse Chemical Inspection Checklist

Hazardous Materials Transporting Vehicle Checklist

Hazardous Material Reviewers Approval Form

HAZMAT Audit Checklist

QP's Dangerous Goods Declaration Form

Contractor's Occupational Health and Safety Management

It is very important to engage our contractors in the safety programmes and training at Qatargas in order to ensure an overall high level of occupational safety, especially considering that 77% of recordable injuries in 2019 were contractor-related incidents. Qatargas dedicates attention to the competency and preparedness of contractors to ensure work is completed safely and effectively. To achieve this, contractors undergo on-boarding sessions whereby they are introduced to Qatargas' fundamental safety programmes. Specialised training on heat stress and the importance of acclimatisation is provided to contractors. They also participate in safety culture training and undergo online LSR refresher trainings periodically.

The Safety and Occupational Health Department at Qatargas is responsible for ensuring contractor management implement the required contractor occupational health and safety management procedures, as part of the Contractor Safety Management System (CSMS). The department has introduced an updated procedure regarding contractor pre-qualification and post-award controls to ensure conformance to the CSMS. This is a revamped CSMS, developed in cooperation with contractors and stakeholders to create a safe work environment for everyone at Qatargas facilities.

KPI	Unit	2019 Performance
Total Hours Worked (Contractors)	Hours	42,061,775
LTI (Contractors) (LTI)	#	2
LTI Rate (Contractors) (LTIF)	#	0.05
Recordable Injuries (Contractors) (RI)	#	17
Total Recordable Injury Rate (Contractors) (TRIR)	Recordable Injury / Million Man-Hours	0.40
Fatalities (Contractors)	#	0
First aid cases (Contractors)	#	32
Heat Stress-related MTC (Contractors)	#	1

Despite total hours worked for contractors increasing from 2018 to 2019 by 7,526,854 hours (22%), the LTI rate for contractors decreased by 3 (40% drop) and the LTIF decreased by 0.09. Similarly, both the total RI and the total TRIR decreased by 4 (19% drop) and 0.21 from the previous year, respectively. The reason for the increased performance in occupational safety with better KPI's and safer working conditions is due to the implementation of a robust CSMS and increased awareness through ongoing trainings and workshops. This figure is appreciatively 80% lower compared to the 0.26 LTIF for contractor average across the oil and gas industry globally. This is testament to the effective leadership and health and safety management system in place at Qatargas.



Figure 10: LTIF, RIF and RIF Target for Contractors in 2019



Figure 11: LTI, RI and Heat Stress events for Contractors in 2019

In order to ensure that our contractors understand and implement our safe work requirements, we share our learnings from incidents with our contractors and we learn from their shared learning. We also actively listen to our contractor's safety concerns and act to help them stay safe. In order to sustain contractor's stewardship and engagement, we decided to introduce contractors HSE&Q management as one of the corporate strategic objectives. This initiative includes frequent engagement with contractors through HSE&Q Forums. In addition to the annual Contractor Safety Forum, Qatargas has established bi-monthly Contractors Safety Forum with a well-established and maintained communication protocol to share lessons learned and best practices. We also conduct regular contractors camp and site workshop visits and inspections. In 2019, five contractors' forums were conducted to address this objective.



Figure 12: Qatargas Safety Contractors Forum, 2019

Qatargas is committed to treating its employees and contractors according to the highest International Labour and Human Rights standards. As such, the Safety and Industrial Hygiene (IH) teams carefully monitor food and hygiene safety with routine inspections in contractors' labour camps. Detailed reports are prepared and delivered to the Qatargas contractor. Any non-conformance to the policy is stated in the reports with corresponding recommendations and suggested action plan to address the issue. Should a non-conformance arise, the contractor addresses the issue with corrective action. Follow up inspections are conducted to check the status of the findings.

In 2019, the company conducted 64 living conditions inspections including offshore and vessels. This represents 25% more planned inspections performed on worker welfare and food and hygiene safety. It was determined that the living space for occupants was in non-compliance with the requirements in some of the contractor camps. The living condition inspections were undertaken for major contractors which have a direct impact on business continuity at Qatargas. During the year, there were zero food safety and fatigue-related incidents.

The Safety and Occupational Health Department conducts a Contract Criticality Assessment. The scale of control required to ensure the Contractor HSE&Q Management process depends on the criticality of the contract. The contract criticality category is a key element to define the contract HSE&Q requirements, and the depth of HSE&Q evaluation required for the contract. The contract criticality category depends on the following factors:

- Scope of work and HSE&Q risks associated with the specified contract activities
- 2. Work location, including the risks when multiple Contractors will be working on the same area.
- Number of people involved in the work at peak time(s).
- 4. Duration of contract onsite activities.

The contract criticality category is determined by the initiating department prior to tendering, using the Contract Criticality Matrix and Decision Tree using the following two triggers: HSE&Q Risk and Manpower involved reflecting the exposure man-hours. The Contract Criticality Assessment is verified by HSE&Q safety officer before submittal to Supply/Contracts Focal Point. The contract bidder provides incident and HSE&Q performance data. The assigned HSE&Q safety officer conducts an evaluation of the contractors HSE&Q Management System, including an Industrial Hygiene assessment.

The contractor performance tracking process includes performance review meetings between Qatargas and Contractor management. The Contractor Administrator establishes KPIs suitable for the scope of work and carry out periodic reviews to monitor the performance of the contractor. The performance review meetings vary according to the level of contract criticality. The frequency of the review meetings are defined by the contract and the interface management plan. Monitoring, verification and assessments findings are reported with recommended actions planned and followed up for closure as per HSE&Q Assessments procedures. In addition, a tracking and monitoring sheet is maintained by HSE&Q on the Qatargas HSE&Q SharePoint. Each Contract Admin has access to the tracking sheets and updates KPIs at the frequencies indicated in the Annual Contract HSE&Q Tracking Sheet on SharePoint every month. The tracking sheets will support the monitoring of contractor HSE&Q performance and ensure compliance to the agreed KPIs and meeting Qatargas standards.



Certifications

Qatargas successfully completed a 10-day audit by an ISO certification body, for the following three ISO standards:

- 9001:2015 Quality Management System
- 14001:2015 Environment Management System
- 45001:2018 Occupational Health & Safety Management System



The certification to the new ISO 45001 standard establishes Qatargas as one of the first Oil & Gas companies in Qatar and in the GCC to achieve this distinctive achievement. As the auditors stated "Qatargas clearly demonstrates their commitment to Safety in all parts of the organisation."

In recognition of our efforts in Health, Safety, and Environment (HSE), Qatargas is one of 10 organisations worldwide to win the 'double' by being awarded both the Sword of Honour and the Globe of Honour by the British Safety Council (BSC), one of the world's premier occupational health and safety organisations. Qatargas also received a BSC Five Star Audit certification in Occupational Health and Safety. The Five Star Audit is an internationally acclaimed scheme wherein the BSC conducts a benchmarking of Safety Management Systems (SMS) and Environmental Management Systems (EMS) of companies against global standards, subsequently rating companies from one to five stars. Qatargas is the first and only Qatari company to receive Five-Star Status in both SMS and EMS. All other ISO audits were successfully completed as per the 2019 plan.

The Emergency Response & Security Department received the Centre for Public Safety Excellence (CPSE) re-accreditation in 2019, showcasing its commitment to continued compliance with the accreditation programme and its core competencies. The CPSE is the only entity that provides accreditation programmes for fire service organisations around the world. It is an internationally accepted standard of measuring organisational effectiveness. CPSE determined that Qatargas' emergency response (ER) met its high standards and qualifications, a commendable distinction as Qatargas ER remains the only accredited fire department in the Middle East, and the only accredited fire department in the oil industry worldwide.



This is a significant accomplishment for the organisation and the State of Qatar, as it signals a desire to continue to lead in the industry on the world stage.

Qatargas security section maintained its ISO 28000 accreditation for QGN and QGS in 2019. The ISO 28000 certificate is a global security standard for a supply chain security management system, and re-accreditation signifies the company's continued commitment to securing its vital operations.

Qatargas Medical Department was accredited by the Joint Commission International (JCI) for the fourth time. JCI is the world leader in accreditation standards for quality in hospital services and patient safety. It works to improve patient safety and quality of health care in the international community. This accreditation combined with the rigorous health requirements, serves as proof of Qatargas' commitment to guaranteeing occupational health and safety of all its employees.

Qatargas Laboratories have maintained their certification



to ISO 17025 - Testing and Calibration Laboratories, which enables Qatargas laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work to Qatargas customers both locally and around the world.

Emergency Response and Security

Our Emergency Response and Security (ERS) Department at Qatargas is a department of the HSEQ Group and is composed of four main divisions/sections: Emergency Response, Fire Protection, Al Khor Security, Safety & Environment (AKS) and Qatargas Security for managing Ras Laffan and Doha facilities.

In May 2019, we updated our Security Policy that is approved by senior management up to the CEO level. The purpose of the Security Policy is to reinforce our commitment to retain premier business performance by maintaining the highest security standards and to continually improve the effectiveness of security management and performance. The policy identifies key risks and controls for consideration as well as the values, mission and implementation measures. Our ERS Management prepare and cascade down the key policies and strategies from which objectives are prepared.

The 2019 Key Performance Indicators (KPI) which Security Section reports on a monthly basis:

	KPI Target	2019 Result
Availability* of Perimeter Physical Security Controls (At all QG Gates, Vehicle Blockers, Perimeter Fence etc.). * Including contingency measures.	100%	100%
Availability* of Access Control Systems (All QG Main Access Points). * Including contingency measures.	100%	100%
Functionality of QG Security CCTV (All Perimeter Fence, Gates, Main Reception Areas, Elevators etc.)	99%	98%
Security Penetration (Fence/Gates Intrusion and misappropriation Of Material Passes resulting in theft (TESTING).	0	0
Security Penetration (Fence/Gates Intrusion and misappropriation Of Material Passes resulting in theft (ACTUAL).	0	0

Based on 2019 performance results, our QG Security division was able to meet almost all its objectives and KPI's for 2019. Other key performance highlights for the section in 2019 included:

• Standardisation of security policies and procedures covering security activities in QGN, QGS, Doha and Offshore.

- Update and approval of Manage Security process book
- Successful recertification of ISO 28000 after integration.
- Implementation of a single electronic access control system across all Qatargas facilities.

In 2019, the electronic access control system was installed in 25 Instrument Technical Rooms (ITR) in QGN to restrict access to authorised personnel only. QG Security Section provides access to the ITRs only upon receiving authorisation from the QGN Operations Department.

Our ERS Department ensures compliance with the legal and regulatory requirements of the state and the industry. Legal requirements of Law 19 of 2009 - Regulation of Private Security Service are fully complied with whereas the applicability of Law 9 - Regulation of the use of Security Cameras is still under discussion with the Ministry of Interior.

In 2019, we conducted a comprehensive security risk assessment to cover onsite, offsite and offshore facilities to identify the key security risks. The key risks are captured in the Security Risk Register which are assessed and controlled after joint review with HSEQ Management on a quarterly basis. The management is also responsible for ensuring Operational Security Plans are in place for Ras Laffan, Doha and Offshore operations.

Any new security requirements or general procedural requirements are communicated to all employees and contractors via email "Security Updates" which serves as a general security awareness communication channel for all employees in the organisation. The QG Security Section has a Security Incident Reporting (SIR) mechanism established using the SharePoint application so that submitted security incident reports can be escalated up the ERS reporting chain. Any communication of securityrelated aspects to external bodies is done through the focal points: ERS Manager and Head of Security. The Head of Security reports incidents and concerns to the ERS Manager who reports it to Qatargas top management for review, as required.

In 2019, we made additional efforts for the development of our National security personnel. Four national senior security staff were sent for overseas trainings in the UK, with one member attending the "Managing Disaster Recovery and Business Continuity" training and the remaining three members attending the "Workplace Investigation and Interviewing" training. Four national security staff went through a "Critical Industrial Infrastructure Protection - Level One" course and eight nationals underwent the Level Two course, both of which were provided by Qatar Ministry of Interior (MOI) at
their Security Training Centre. Nine staff attended and completed the Flare gun Operations Training. In addition, 329 training sessions were delivered to all Qatargas contractor security staff covering various topics, including integrated security procedures and daily operational issues by the company's in-house security training team.

QG Security Section places a great importance on the welfare and wellbeing of its contractor security staff. Apart from doing accommodation inspections to ensure provision of adequate living conditions, QG Security Section ensures all security contractor staff are taking one day off per week to maintain the work-rest balance.

Our Emergency Response (ER) and Fire Protection divisions of the ERS Department act as an integrated team for Qatargas North (QGN) and Qatargas South (QGS). This approach was based on the idea that protection, prevention, education and developing emergency response programmes must be integrated to have the greatest possible impact on safety and security at company facilities. We maintained a five-minute response time in all ER instances during 2019 at both QGN and QGS sites. This represents a consistently effective and low response time from previous years. The divisions ensured that adequate ER equipment was available on all fire trucks to address ER performance objectives and maintain inventory standardisation with other agencies in RLIC.

Our Fire Protection division maintained preventive maintenance strategies for fire equipment and the fire prevention code based on relevant National Fire Protection Association (NFPA) standards. The inspection and testing of fire protection equipment and buildings for 2019 witnessed total compliance with international standards. Any areas of improvement identified from this programme were recorded and a corrective action plan was created to ensure that all equipment and buildings met the required fire safety and NFPA standards.

KPI	Units	Description	2019 Target	Testing / Actual	2019 Performance
Fire Protection System /	ipment "Inspection and % System Inspection and Testing 99%	Т	99%		
testing"		А	99.67%		
Fire Protection System Equipment	%	Functionality of Fire Protection System / Equipment (As per	100	Т	100%
"Readiness"	20	Operating Design).		А	99.96%
Emergency Response and Alarm Processing "Time"	%	Maintain 5 Minutes Response Time (The Time Interval Between the Wheel Roll from The Fire Station		Т	95%
	70	Until the 'First' Emergency Vehicle Arrives On-scene).	95%	А	100%



The division reported no failures of fire protection equipment on site, highlighting our fire safety readiness and fire prevention efforts throughout Qatargas facilities. In 2019, ER trainings and exercises took place according to the training programs requirements. The ER exercises were crucial to preparing our rescue team with a prompt response to equipment deployment and the demonstration of effective on-scene command and control capabilities.







Qatargas Medical Services

As part of Qatargas' commitment to occupational health at the workplace, our Medical Department prioritises the health and welfare of our workers, including both employees and contractors. The mission statement of the department is to maintain and promote the physical, mental and social wellbeing of Qatargas employees and their dependents by providing a range of quality medical services covering occupational, emergency and primary health care through the efficient and cost-effective management of Qatargas clinics at the plant, offshore and in Doha. The Medical Department will prognosticate the evolving needs of the company and its employees and provide for them accordingly. It will endeavour to strengthen the communication and cooperation with reputed medical bodies as well as on-going training of medical staff to capacitate the continuous improvement of services.

As such, the Medical Department has established a robust Health Management Plan based on five key pillars: Occupational services, Primary care, Emergency services, Administrative services, and Medical insurance. The department abides by a Code of Ethical Conduct for which they will:

- Accord the highest priority to health and safety of individuals
- Keep confidential all individual medical information
- Practice of a scientific basis with integrity
- Strive to acquire and maintain adequate knowledge and expertise
- Relate honestly and ethically in all professional relationships
- Strive to expand and disseminate medical knowledge

An internal clinic audit policy is in place that defines the internal audit activities inside the medical department of clinical and administrative aspects. The policy describes how the Medical Department internally monitors all activities, highlights opportunities for improvement and showcases the ideal resolution method. Stakeholders are engaged in the review of the department through the guarterly performance meetings. The audit reports are distributed individually to doctors and dentists outlining their performance in terms of prescriptions, investigations, referrals and admission. In 2019, positive feedback was received from all stakeholders. The legal requirement of the department is to maintain licenses for all medical staff and QG medical facilities. There is an additional compliance requirement for QCHP regulations in medical and dental practice.



The company takes steps to ensure that its employees benefit from world-class healthcare services in addition to comprehensive health checks. In 2019, all Qatargas medical facilities includina Al Khor Community Medical Centre received reaccreditation from Joint Commission

International.

Figure 13: JCI Accreditation for QG Medical Services Department

the world leader in accreditation standards for quality in hospital services and patient safety. This award represents premium healthcare delivery with patient centrality, customer satisfaction and medical practice safety. Qatargas Medical Centre is the first primary care and occupational medicine primary centre in Qatar to receive this award. Apart from JCI, the plant medical centres are ISO certified and recognised by the Royal College of Physicians of Ireland as an accredited post-graduate training centre in occupational medicine. Combined with the rigorous health requirements, this accreditation serves as proof of Qatargas' commitment to guaranteeing occupational health and safety of all its employees and workers.

We conduct periodic medical examinations (PME) of our employees. These screenings follows OSHA and IPIECA guidelines and recommendations in implementing health survey measures. Ras Laffan Industrial City (RLIC) also has regulations for the well-being of employees that work in RLIC. To align with this requirement, Qatargas conducts mass medical screening of both our employees and our contractors, including the fitness-to-work exam. This is in addition to the fitness-to-work medical tests performed by the contractor for the contractor's management to track the health of its employees.

Participation in the mass medical screening by contractors is mandatory before commencing work, either offshore or onshore. The total number of mass medical screenings performed in 2019 was 31,858 which was 14,372 more than those performed in 2018. The biggest increase in medical screenings was observed for contractors with 13,942 more screenings than the previous year. Employees were screened only 430 times more than in 2018. This is due to aligning and incorporating best practices between QGN and QGS which results in the increase in the number of screenings. There were also more projects for NFE and offshore during the reporting period to assist Qatargas in its expansion plan which resulted in the high number of medical mass trainings.

KPI	Unit	2019 Performance
Total number of medical mass screenings	#	31,858
Medical screenings for employees (PME)	#	3,054
Medical screenings for contractors	#	28,804
Cost Optimisation	USD	6.2 M
Customer Satisfaction	%	95

The top KPIs for the Medical Department are cost optimisation and customer satisfaction. The cost optimisation of USD 6.2 M represents a saving of 34% compared to 2018 with regards to the cost of medical services. This includes an agreement between QG Medical and the insurance company to recover the cost of primary medical and dental services effective 1 January 2019.

The introduction of Alkoot medical insurance as a premium provider of secondary and tertiary care posed a significant change in the nature of the department's responsibilities. Alkoot is now the medical and dental service provider for QG employees and dependents. It provides unrivalled coverage inside Qatar and worldwide. Employees feedback on insurance and any other matter related to the Medical Department is received through the Pulse Survey. The Pulse Survey is an internal survey that monitors patients' feedback on the following:

- Waiting time
- Reception staff courteous and friendly service
- Nurse provide professional and efficient
- Physician provider (knowledgeable, listens and answers questions, discusses treatment options and advice on health care)
- Help leading a healthier life
- Overall rating for the care received at QG Plant Clinic

The Pulse Survey is an internal customer satisfaction assessment. The survey was conducted in 2019 covering all QG clinics and was answered by 8,160 medical and dental patients. The overall results of the Pulse Survey were exceptional with 95% of all participants "very satisfied" and 4% of participants "satisfied" with the service offered. Additionally, 98% of participants responded that they were attended to within the first 15-20 minutes of their arrival at the QG Al Khor Community Medical Centre.

The Company requires its employees and contractors to undergo Periodic Medical Examinations (PME), with contractors instructed to have these examinations carried out in licensed private medical facilities in accordance with the company's standards using Qatargas medical screening forms which are reviewed and verified by company doctors to establish fitness for work. The department ensured fitness for work for all QG projects and shutdown personnel for QGN and QGS. In 2019, the mass screenings included tests for psychological mental health in the workplace. The department rolled out a major one-of-akind mass screening project to enforce mental wellbeing of employees.

Qatargas security has greatly assisted in enforcing medical screening requirements at Qatargas facilities, preventing unfit contractors' from accessing worksites. New initiatives in 2019 to aid compliance with the screenings include enforcement of call out system to invite employees via email, SMS and phone calls. Additionally, non-compliances were notified to HR for those that repeatedly failed to attend the medical screenings without justification. Health screenings of Qatargas employees as part of PME are performed at the company's own clinics in RLIC and Doha to ensure that the screening adhere to strict health standards. Medical screening includes an annual medical fitness examination, fatigue assessment, and heart health assessment. In addition, the Plant Medical Centre provides 24/7 health-check services for employees and contractors.

QG Medical rolled out a major update in the process of contractors' medical screening validation. We worked with the IT Department to develop a controlled electronic platform in which contractors will upload health screening results from one end and QG Medical will validate it from the other end. This major update contributed to further data protection, health records confidentiality and saved significant time and effort for the contractors and for QG as well. It also enabled QG medical doctors to validate higher number of records in less time. Over the past year QG validated around 15 thousand records in plant clinics for contractors participating in critical activities, mainly shutdowns. Around 2% of contractors were declared unfit to work and around 10% were declared fit but with medical conditions.

Key milestones achieved include recovery of primary care services and building modifications for clinics at headguarters in Doha, Al Khor and RLC.



Our Medical Department hosted a "Health Check Booth" at the worksite that conducted general health tests for employees and answered health-related queries. Heart health assessment has been promoted by the Qatargas Healthy Heart Campaigns in 2019. A total of 17 such campaigns were conducted throughout the year for different groups in the company, such as Security, Learning & Development, Laffan Refinery Maintenance and Operations. We were able to successfully welcome 1,247 attendees to these campaigns.

The Qatargas Blood Donation Drive was held in 2019 in cooperation with HMC and MoPH. A total of four blood donation drives were organised with 280 participants and donors for the campaign. Other health awareness campaigns throughout the year included dental awareness, CPR, breast cancer awareness, school health program and anti-smoking.



Figure 14: Health Heart Campaigns in 2019



As a part of the continued health awareness initiatives of Al Khor Community Medical Centre, a Family Health Fun Day and workshop was once again held at the Al Waha Club on Saturday 16th October 2019. The ultimate focus of the workshop was to increase community awareness of about the health, as well as to encourage people to come forward for health screening. The workshop by the Qatargas AI Khor Community Medical Centre was held in cooperation with Al Waha Club. A total of 280 participants took part in the Family Health Fun Day.





Figure 15: Family Health Fun Day at Al Khor Community

onshore and offshore, meet international standards of the highest level. Event participation allows for the application of best practices in clinical occupational medicine that ensures the optimum outcome and maintains safety and productivity of employees. In 2019, QG Medical Department served as a member on the advisory board of the College of North Atlantic Qatar - Emergency Medicine.





HUMAN CAPITAL PERFORMANCE

A high-performing workforce is fundamental to organisational excellence and achieving strategic goals and objectives. We, at Qatargas, along with various companies and organisations around the world realise that engaging the workforce is critical to enhancing employee performance, productivity and even retention. Organisations with engaged workers have employees who less likely leave the organisation.

Some of the main indices that create an engaged workforce are having a positive work environment with enhanced humanistic nature and growth opportunities with training and high-impact learning culture. This led to increased interest from governments and companies, like Qatargas, to focus on offering better work culture and training opportunities.

As a result, international institutions such as the UN realised the importance of leading dialogue on workers' rights in the form of frameworks, and conventions to set an example for governments, and organisations around the world. The UN published the UN Guiding Principles on Business and Human Rights highlighting the responsibility of countries and governments to have adequate laws to protect workers' rights, give guidance to businesses and ensure enforcements of these laws. Moreover, the International Labour Organisation called attention to the central role decent work plays to achieving sustainable development by publishing a system of international labour standards that set out basic rights and principles at work.

The State of Qatar, where our company primarily operates, is committed to Education and Training Quality, and empowering an Efficient and Committed Workforce as part of its Second National Development Plan and commitment to the United Nations Sustainable Development Goals (SDGs). Moreover, our country binds all entities Qatar to follow sets of laws outlining legal rights, restrictions and obligations of employees and employers.

Subsequently, we at Qatargas, cognise that our employees are paramount to our continued success and administered multiple controls to facilitate learning and development, foster a culture of diversity and remain committed to having a high performing workforce.

This section presents our people performance relating to employment, Qatarisation, and training and development.



Material Topic	Alignment to GRI	Alignment to UN SDGs	Alignment to QNV 2030
Qatarisation	GRI 202	-	
Employment	GRI 401	UN SDG 5 and 8	Human Develop- ment
Training and development	GRI 404	UN SDG 4, 5 and 8	ment

Leadership in Workplace

GRI 102-41 Commitment of leadership on the management of various workplace practices - including recruitment, retention, non-discrimination, diversity, learning and development - is key to setting the right culture for a successful and high performing organisation, as well as, empowering workers. Without the leadership's commitment and alignment of values, a unified approach towards employment practices, employee engagement and training and development is intangible. Therefore, Qatargas Management Leadership Team (MLT) in collaboration with Qatargas employees updated our Direction Statement through a companywide cultural survey in 2019 that requested employees' inputs on the drafted Direction Statement along with the proposed and desired culture at Qatargas. These efforts were directed by 12 champions, elected across a pool of employees. Shareholder representatives were also interviewed as part of a SWOT analysis that was conducted in preparation for drafting the new Direction Statement. High caliber workforce was set as one of the strategic pillars of our Direction Statement, which illustrates leadership's commitment to workplace practices.

Furthermore, we set 'Valuing Our People' as one of the five values under our Direction Statement and established and sustained our Employee Relations Policy, National Graduate Development Program Policy, Leadership Development Policy and Training Policy to govern employee practices, protect workers from discrimination, mandate fair treatment of our workforce, support the growth of Qatargas leaders and employees and assist in the development of our Qatari Graduates.

In order to achieve premier performance in line with our Direction Statement, Values and policies, our leadership translated the aforementioned into measurable execution plans with clear strategic goals, key performance indicators, and corporate initiatives. Qatargas leadership also set departmental level objectives and KPIs which are aligned to Corporate Objectives to further reinforce fulfilling our Direction Statement. Our leadership performance progress review meetings are performed guarterly to ensure we are on track to achieve our workplace targets and objectives.

In addition, at Qatargas, we established and maintained various management systems including our Talent Management System- which includes our Goal and Performance Management Module to support us with tracking workplace various performance metrics and practices. We also have our Training Events and Management System (TEMS Workflow), which is used to register for external training - inside or outside Qatar. Along with our management systems, we offer our employees self-service tools - such as SAP portal, HR

Policies and Procedures tool HR Portal Page, Qatargas Learning Solution (LSO)- and informed assistance tools - HR Service Desk and Personnel Administration Phone Service, Learning and Development Service Desk- to manage their HR and Learning and Development needs. We also effectively managed and implemented multiple HR IT projects including the automation of our annual leave airfare and enhancement of our Timesheet Workflow.

Furthermore, we maintained the gold accreditations of the We Invest in People from the Investors in People during the reporting period, which provides us with valuable benefits such as:

- Gain detailed insight into how well we are currently leading, supporting and developing our workforce to achieve business results.

- Measure the impact of our people strategy and initiatives and how they benefit our people.

In line with our efforts to further enhance our employee practices - including recruitment, retention, nondiscrimination, diversity, learning and development, we established multiple departments and divisions at Qatargas to focus on key areas. Some of the main departments are Human Resources Department and Learning and Development Department. Under our HR Department, we have several divisions to help us effectively guide our employee practices- Recruitment Division, Personnel Administration Division, Manpower and Organisational Development Division, Government Affairs Division and Compensation and Policy Division.

Our Recruitment division is responsible for facilitating the sourcing, selection, offer management and mobilisation of new hires. Whereas, our Personnel Administration Division's role is to ensure the smooth, effective and efficient administration and processing of employees' daily HR requirements, as well as, guide and assist employees in understanding and implementing Qatargas HR policies and procedures. Our Manpower and Organisational Development Division is responsible to steward the annual manpower budgeting process in line with our business strategy and Qatarisation objectives. One of the primary roles of our Compensation and Policy Division is to deliver total remuneration solutions in support of our Qatargas business strategy and ensuring that reward systems are geared towards improving individual performance.

As for our L&D Department, it comprises of multiple divisions - Qatarisation and National Development Division, Training and Education Division, and Competence Development and Performance Management Division. Our Qatarisation and National Development Division is responsible for providing Qatargas with the required support to build strong National workforce aligned to

QNV 2030 through different programmes and maintaining excellent communication to support our nationals during their development programme moving to establishment. Our Training and Education Division provides Qatargas with the framework and mechanisms to build and maintain a high calibre and diverse workforce, with the right skills through different types of training, and support



the talent pool with their leadership development. As for our Competence Development and Performance Division, it provides information, guidance, and governance on the Qatargas Competence Development Framework -which is intended to develop and maintain a high-performing workforce and monitor the performance management process to ensure the achievement of business objectives by aligning employee objectives with our company's objectives.

Besides the aforementioned, our leadership also comprehends the importance of building capabilities and providing growth opportunities to our employees. Thus, one of the main priorities of our Learning and Development Department is to offer our employees leadership programmes, trainings and awareness sessions to develop their behavioural and technical competences.

Supporting our Nationals

Qatarisation and hiring national staff can have myriad of benefits on the community and the business. Countries and organisations are noting that local professionals have cultural and contextual knowledge of the country, as well as, speak the local language, which are key



assets for business excellence. Thus, Qatarisation and providing nationals with excellent development programs supported by training opportunities is a core element of the Human Capital Development Pillar of the Qatar National Vision 2030. At Qatargas, Qatarisation continues to be a strategic focus and a Corporate Key

Performance Indicator. By 2030, we aim to achieve 50% Qatarisation in Qatargas. We established our National Graduate Development Programme (NGDP) Policy to help us achieve our target and offer our new college and university National Graduates that have minimum work experience a structured competence-based development program designed for their development to achieve the required knowledge and skills towards their first level of establishment. In addition, to achieve our target, we continued and initiated some programmes to engage with Qataris and support their developments. Our programmes span from engaging with Qatari high-school students to National Graduates and our other Qatari employees. For high school students, we continued a high level of engagement with local high schools by visiting them and communicating the range of career opportunities available as well as the core values and ethics of our company with Qatari high school students.

Furthermore, and as part of our Hayyakum Outreach Plan, we participated in several career fairs in Qatar including career fairs in Qatar University and Education City, Career Village in Education City and job fair and career awareness at CNA-Q. Through career fairs, we seek to further introduce applicants to Qatargas and prospective

> opportunities to join our team. We also have direct coordination with the Employer Relations Departments at Qatar University, Texas A&M Qatar, Carnegie Mellon Qatar and CNAQ, which support Qatargas with hiring National Graduates from their respective universities.

We also offer scholarships annually to a number of talented national high-school students to pursue their bachelor's degrees with the condition of joining Qatargas upon graduation. This initiative allows us to support nationals with pursuing high-calibre education and also

utilise their knowledge in the growth and development of our company in the future. In 2019, 10 of our scholars completed their academic programme in 2019 and will join Qatargas in 2020 through our NGDP program to attain establishment upon completion. In addition, we offered scholarships to eight talented nationals to pursue their undergraduate studies.- three students in Qatar and five in the UK.

Upon joining Qatargas as National Graduates and as per our NGDP policy, we enrol our National Graduates into our Individual Development Plan (IDP), which is a two to six year competence-based programme that encompasses mandatory technical and behavioural trainings, rotation, and job learning and highlights targets to be accomplished by each of the National Graduates upon the completion of the programme. The IDP helps our National Graduates by easing the transition to professional work, providing support to meet the minimum competencies required for the target position and ensuring National Graduates are satisfied throughout their journey at Qatargas. In 2019, 70 National Graduates successfully completed their IDP.

In essence, our approach to the development of our nationals follows the 70-20-10 model: 10% formal classroom training, 20% coaching and/or mentoring to support the implementation of training and development of skills and experience, and 70% on-the-job experience and learning to embed what is learned through training courses and coaching sessions.

As for our national trainees, we offer them a Technician

Certificate Programme which provide them with a higher national diploma from the College of North Atlantic Qatar (CNA-Q). In 2019, 30 trainees completed the TCP program and 30 others are still under development in CNAQ.



Hence, we provide our nationals with the ideal environment and support to excel and achieve their targets; our National Graduates have dedicated coaches, assigned development specialist, guarterly counselling sessions, and special annual forums. One of our main annual forums is our annual CEO forum for National Graduates and Trainees - which provides an opportunity for Qatari national graduates and trainees to engage in open discussion with our senior management and contribute to decision making, ensuring active involvement in their own personal development. The CEO Forum at Qatargas reflects the commitment made by our senior management to national workforce and helps forge a strong relationship between the young nationals and management. The theme for this year's forum was "Commitment to Premier National Development." During the event, the CEO presented awards to the 14 National Graduates, three trainees, and 11 scholars with best academic excellence for their outstanding performance in 2019. The coaches who excelled in training and mentoring the national graduates and trainees were also recognised by the CEO. At the end of the forum, a closed session



was conducted for the graduates and trainees, in which the CEO and Qatarisation team were present, to provide National Graduates with the opportunity to share their queries, concerns, and questions freely with the CEO.

We also conducted two additional forums for the National Graduates and trainees, which are led by the Learning and Development Department. These forums aim to have our department engage with the National Graduates and trainees, discuss their current development and progress, and provide an open space for transparent communication.

In recognition of all our efforts on Qatarisation, Qatargas was awarded the Qatarisation Certificate during the reporting period at the Annual Qatarisation Energy and Industry Review Meeting in Doha to value Qatargas' support and liaison with the education sector during 2018. As a reflection of our continuous efforts, our Qatarisation percentage during the reporting period was 33.56% with a total of 1,530 Qatari employees against the ambitious target of the State of Qatar of 50% Qatarisation.. We also reached 44.44% Qatarisation of our active management in 2019. Our total Qatarisation rates of total employees and active management almost remained constant when compared to 2018 illustrating our continuous commitment to Qatarisation, meeting our corporate objectives and supporting QNV 2030.





Employee Practices, Retention and Recruitment

A high-performing workforce is essential to the success of an organisation, and with the competitiveness of the hiring market, organisations are focusing more than ever on developing strategies to protect employees, maintain a diverse workplace, offer competitive benefits and ensure the satisfaction of employees. Hence, Qatargas updated the Direction Statement in 2019 and highlighted "We value our people" as one of the main values at Qatargas.

Our sustainability policy highlights our commitment to provide personal and professional development opportunities in a safe and rewarding work environment to attract and retain a diverse, high-calibre national and international workforce. In addition, we have 23 Human Resource policies under our Human Capital Group - such as Allowances and Benefits Policy, Recruitment and Placement Policy, and Employee Relations Policy that govern our workplace practices and guide our activities at Qatargas in relation to recognising, valuing and rewarding our workforce. Our HR policies are reviewed every three years and are classified as part of our QGMS to ensure they remain fit-for-purpose, up to date, controlled, and easily accessible.

As part of our efforts to enhance employee practices, we embarked on a health check of our company's structure post-merger with RasGas to evaluate non-operational structures and ensure their suitability for existing business requirements. Through our health check, we also evaluated the temporary position requirements for upcoming projects related to the North Field Expansion and North Field Production Sustainability projects, as well as, identified the ultimate permanent organisational requirements for the future when the projects are completed.

We also merged our two unique individual operations groups in 2019 that were in place due to the legacy of Qatargas and RasGas and created one unique and efficient structure harnessing the best of both system. This involved a detailed and comprehensive review of all our operational structures, titles and processes resulting in a structure consisting of two new unique groups to replace the previous two legacy ones that existed. As part of this process, HR engaged with the integration taskforce and carried out job evaluations to ensure the proposed structure was in line with existing company structures, and roles were reflective of the new structure



responsibilities. This project was completed in 2019 and the new Operations Structures will be effective and live by 1 January 2020.

Furthermore, in our efforts to manage all jobs at our company effectively and clearly express our expectations from our employees in our various departments and across employment levels, we reviewed job descriptions and Job Family Models (JFM) of all our job designations at Qatargas during the reporting period. This process followed a detailed and holistic approach in which we shared the job descriptions and JFMs with the relevant teams at Qatargas for their sign-off. Any appeal cases received about the reviewed job descriptions and JFMs were assessed and finalised. Subsequently, managers were given trainings on job design, job analysis and job descriptions.

In line with our policies and Direction Statement, we performed a market survey benchmarking and reporting exercise of national, regional and international salaries, total rewards, benefits, allowances, and overseas assignment policies in order to ensure all our employees fair treatment.

Moreover, we realise that effective human resource management is driven by functional measurement and monitoring of our workforce metrics. The deep understanding and continual analysis of our various metrics is key to tracking progress and the effectiveness of our human capital initiatives. Hence, we have a robust system at Qatargas to monitor all key human capital metrics. For instance, under our C&P division, we have e-knowledge system which is a smart navigator and intelligent search function that is used to give employees easy access to our HR policies and procedures in their original form, as well as, summarised form.

At Qatargas, we employ 5,642 permanent and temporary employees across our various assets. Almost 70% of our employees are present at Ras Laffan where the largest part of our business operations is located, and approximately 24% of our employees work at our head



office in Doha. The remaining 6% of our workforce including our permanent and temporary contracts work either offshore, at Al-Khor Community or are on training or working assignment or working in Qatargas Overseas Offices.

Across our locations, our male employees continue to dominate our workforce making up 89% of our total human capital in 2019 - both permanent and temporary contracts, which is the result of an originally male-centric sector.

Our temporary employees include trainees, project dire hire, and project Task Force Personnel, and they constitute 19% of our total workforce. In addition to our temporary employees, we engage with multiple types of contractors at Qatargas that support us in myriad functions and activities.



As global operator, we at Qatargas have employees from all regions in the world and believe that our diversity brings numerous benefits such as the ability to localise to new markets, the capacity to adapt through our access to top-talent pools and prospect of more innovative and creative ideas. Similarly, we believe that having a workforce across different age groups can improve our organisational performance, hence, we continue to have the majority of our employees between the ages of 30 and 50 years old - 70%, whereas employees under 30 makeup 9% and the remaining 21% account for employees above 50 years old.

Turnover by age group at Qatargas



Along with the aforementioned, we also analyse and monitor our recruitment process through our Recruitment Division, which facilitates the sourcing, selection, offer management and mobilisation of talent in order to have high-performing individuals as part of our team.

In 2019, we recruited 327 new employees, most of which are between the ages of 30 and 50 years old. We continue to hire both females and males but most of our recruits are males. A lot of our recruits are Qataris as we seek to achieve our Qatarisation target and support Qatar's QNV 2030. For more information on our Qatarisation practices, please refer to page 81.



As we always seek continual improvement and development of our processes, our Recruitment Division commenced a new initiative in 2019 to move our in-house recruitment solution to a more effective fully integrated



cloud solution, which is expected to cover the complete Attract-to-Hire process. The new recruitment solution is expected to be completed in 2020 and will provide visibility and insight of all the recruitment process to all involved stakeholders. The solution will also include building a corporate website for internal and external job postings. Moreover, the tool aims to introduce and promote Qatargas to external workforces and industry affiliates, as well as, ensure efficient data flow to Qatargas' existing human capital IT solutions.

At Qatargas, one of our main objectives is to have a highcalibre workforce. Thus, along with our current recruitment



practices and future initiatives to enhance recruitment, we significantly cognize importance of retaining our employees beyond recruitment. In 2019, we maintained a low turnover rate of 4.7% - only 2.22% are regretted turnover- compared to 4.54% in 2018, and this can be attributed to our numerous practices and initiatives in place at Qatargas to ensure employee satisfaction, warrant employees feel valued and offer them competitive benefits for their exceptional efforts.

For instance, we provide our supervisors with employee relations trainings in order to support our supervisors communicate and engage with their employees effectively.

We also have an HR Service desk which answers any queries our employees may have at Qatargas. In 2019, we received 12,671 queries to our HR service desk. We are proud to mentioned that 95% of those queries were resolved within three days or less. Furthermore, our Integration Team conducted an Employee Opinion Survey which offers all our employees the opportunity to provide confidential feedback on their experience of working at Qatargas. The survey acts as a direct line of transparent communication with our leadership in order to take action on areas that may discourage our employees. 61% of our employees participated in our Employee Opinion Survey during the reporting period.

Some of the main aspects being surveyed in our Employee Opinion Survey are core engagement, safety, ethics, clear objectives, teamwork, growth and development, recognition and interdepartmental collaboration. In 2019, we are proud to mention that 94% of our employees indicated that they are proud to work for Qatargas and 93% responded positively to our commitment to safety. Moreover, 90% of responding employees reported that



goals and objectives are clearly defined and indicates there is clarity in their purpose. We also received feedback that we need to improve in some areas such as interdepartmental collaboration, thus, a working group comprising of Human Resources, Learning and Development and Corporate planning was convened to focus on the key concerns from the survey and determine how best to respond. This showcases Qatargas' commitment to the workforce and to our values of valuing our people.

As part of our commitment to our employees, we offer our employees tax-free salaries and housing allowances. We alternatively provide some of our employees a rent-free accommodation in Al Khor. In previous years, we also used to offer our employees housing options in Doha, however, in 2019, we took the decision to cease the provision of housing in Doha and successfully relocated all our employees from Doha properties to Al-Khor Community.

We also provide our employees with an annual leave package of 37 working days for senior staff and 24 working days for non-senior staff. Along with the annual leave packages, and as we have a global and diverse workforce, we offer our employees annual airline ticket to their home countries, including their spouse and up to four dependent children staying in Qatar. As for health and fitness services, we provide our employees with free medical and dental care, as well as, access to Recreational clubs and programmes. In addition, we realise that our operations can be in remote areas, hence, we give our employees transportation allowance, as well as, access to an Interest-free car loan facility. We also offer our workforce an education assistance and training opportunities. In addition, we demonstrated our appreciation and respect for employees that have established long-term loyalty to our company. We understand that efficiency and productivity are a result of time and experience, along with appropriate training. Thus, we strive to retain those who have shown great commitment to their work, and who are delivering on the core values espoused by Qatargas over the years. In 2019, Qatargas acclaimed more than 1,200 employees in 2019 at our annual Long Service Award ceremony. The ceremony recognises the long-term contribution of Qatargas employees, and the crucial role they play in the success of our company.



Talent Management and Development

Qatargas adopted a new integrated Qatargas Talent Management System (QG TMS). The aim is to significantly enhance the Company's ability to realise a competitive advantage in the management of our employees' development and performance and to drive the sustainable success of QG.

The QG TMS is a comprehensive cloud solution for all talent processes. It is designed to replace stand-alone systems by providing an integrated approach to the existing talent management processes.

By streamlining and automating processes, the QG TMS will:

- Decrease instances of fragmented employee data.
- Minimise the time required to retrieve and process data
- Improve resource utilisation, so that the Company functions at optimum efficiency level.
- Align and automate core L&D business processes
- Provide line managers with advanced reporting capabilities, and dashboards.

The first module, Performance Management and Goal Management (PM-GM), has been live since February 2019, Employee Profile (EP) launched in April 2019, and Learning Management System (LMS) modules will be launched at different phases during 2020. Career and Development Planning (CDP), Succession Planning (SP) and Workforce Analytics (WFA) will be launched in 2021

The Employee Profile (EP) module will enable employees to capture their personal details and credentials, providing supervisors with a clear summary of their work experiences, their formal qualifications and more. The profile will provide the company with valuable insights (with examples such as: which employees have strong project management experience gained in previous roles or which employees have strong shutdown experience working on multiple trains during their career etc).

The Performance and Goal Management (PM-GM) module will align with the company's approved process and will enable employees and supervisors to monitor progress against objectives and behaviours across the year. This will replace the previous system and full training has been delivered during Q1 of 2019, using a range of approaches including Computer Based Training, Classroom sessions and Formal briefings.

Along with our online learning modules and Talent Management System, we have developed a technical competence (TC) framework to ensure employees are equipped with the right technical skills to perform safely and efficiently in their role. The framework applies to Head positions and below, and the L&D Department was mandated to implement it across Qatargas in three stages to ensure a systematic process for developing our employees' competence, knowledge and skills.

The first stage is the competence job profiling, which includes definition of competence elements, descriptor, and competence levels required for the position. This is followed by a technical competence assessment (TCA), which is considered the second stage of the technical competence framework. In 2019, 99.5 percent of our employees were eligible to take the TCA, and 20 percent of the assessment takers were found to have some gaps in their technical competence. In our efforts to develop our employees and offer them growth opportunities,



Stages of the performance management cycle in Talent Management System



99.6 percent of the employees with gaps were issued a development plan to improve their technical competence - development plans are the third stage of our technical competence framework. Currently, the development plans are in manual format and tracked offline. The plan is to formally migrate the CDP onto the new online module 'Career and Development Planning (CDP)' which is an automated online solution.

Training and development of the workforce presents a significant opportunity for any organisation and attracts valuable results. Training can improve employee performance, enhance employee satisfaction and morale, help address employee weaknesses, and increase productivity and innovation. In Qatar, Human Capital Development is one of Qatar's main pillars of the Qatar National Vision 2030, and leading organisations in Qatar are advocated on the importance of investing in workers' development. Therefore, Qatargas cognizes the importance of developing employees and created the Leadership Development Policy in 2019 to support the growth of our leaders, as well as, maintained our Training Policy, Training Approval and Registration Policy and Evaluation of Training Policy. Moreover, we have clear procedures and annual plans for training and development. We also maintain weekly division and heads meetings, and monthly departmental meetings to review progress on L&D objectives and ensure timely implementation of initiatives.

During the reporting period, we undertook a major revision of all Leadership Development Programmes to ensure our leaders experience world class leadership development from recognised industry leaders. We collaborated with a global leadership training company for the first phase of the Activate Programme which focused on the 7 Habits of Highly Effective People. In 2019, four activate sessions for first phase were delivered.

The second phase of the Activate programme focuses on providing a range of business experiences for selected high potential participants who attended the first phase. Each business experience is aligned to our strategic pillars and are intended to provide the participants with a deeper understanding of the Qatargas business. Moreover, in 2019, the team reviewed and enhanced the business experiences. Two new experiences were included in phase two in addition to previous experiences; attendance at our Quarterly Premier Leadership Events (PLE) and a partnership with Al-Khor International School (AKIS). The purpose of attending the PLE is to provide participants with an understating of how our company operates at a strategic level, how we manage performance and work together across the business to develop new strategic initiatives. The intention of the AKIS experience is to provide the context for our Activate second phase participants to put into practice their leadership learning by leading and mentoring a group of students.

In addition to our Leadership Development Programme, we redesigned the Cadre Leadership Development Programme in partnership with HEC Paris, a world class executive education provider. The Programme consists of three modules that focus on the Qatargas leadership philosophy of leading self, leading others and leading the business. These modules are delivered in partnership with HEC Paris. Another aspect of the programme is using different assessments to measure skills and capabilities to assist in the creation of a leadership development plan. During the reporting period, we also continued our 'Supervising the Qatargas Way' workshops which consists of four essential modules to support supervisor of others at Qatargas. The aim of these workshops is to provide supervisors and leads with the necessary techniques to achieve team objectives and contribute to the overall Qatargas KPIs, as well as, understand Qatargas processes such as the HR toolkit.

For our supervisors and leads, we also revamped our Emerging Leaders Programme. The relaunched programme consists of two modules delivered in partnership with a global organisation. The first module focused on the 7 Habits of Highly Effective People and the second module focused on the 6 critical practises for leading a team.

We also maintained our Succession Plan across all company groups, which is a standardised process that identifies employees with high potential that can meet the immediate and long-term succession needs of all key positions. Succession planning is a facilitated process with Chief Officers and Department Managers reviewing and assessing the potential of talent pool entrants to identify development opportunities and successors for key roles.

We also introduced a range of new training modules in our SAP Learning Solution system (LSO) as part of our Learning Management System, which provides various training activities such as Classroom Briefings, and Computer Based Training sorted into different domains according to the course type, topics, delivery method, venue, etc. In order to support employees with the usage of the LSO and understand any new functionalities introduced, we have a Focal Point system, L&D service desk and online help centre.

To further support our employees with their growth and development, we opened a new library facility containing more than 300 books and 80 e-books for selfdevelopment. The library also has computers and a seating area to ease accessing the library e-books.

As a result of our continuous efforts to offer our employees various training and development opportunities, our annual average training hours per employee during the reporting period are approximately 21 hours, which include in-house classroom training, external classroom training and web-based training.

Moreover, some employees attended external trainings during 2019. The external trainings were offered for various reasons including employees with Individual Development Plans, Critical Business Needs, mandatory training course assigned to the positions, and technical training courses due to technological enhancements. All our external training requests are handled by our Qatargas Workflow System as per defined approval levels of our training policy.

Learning EXPO 2019

Details of the survey:

As part of Qatargas talent management and development the Learning and Development (L&D) Department hosted the highly anticipated 'Learning EXPO 2019', an interactive educational event for employees. The event held under the theme 'Commitment to Excellence', took place at three locations: Qatargas Headquarters in Doha, Operations North and Operations South in Ras Laffan. During the event, more than 400 participating employees had the opportunity to participate in a variety of fun-filled interactive learning activities.



Outcomes:

- 429 Participating employees.
- Improve employees' internal and external communication skills.
- Enhance employee engagement and development through interactive activities.



We look forward to continuing our training and development journey in the upcoming year and supporting our employees in growing their behavioral and technical skills. We are also anticipating the launch of our SuccessFactors LMS in 2020 and believe it will bring tremendous benefits for our learning and development.



Local Communities Engagement

Qatargas aspires to enrich the potential and capabilities of our local communities, and as part of our core

mission, Qatargas is committed to being socially responsible and actively contribute to community and business partnerships. As the World's Premier LNG company, creating value for our local community is essential. We ought to support our local communities and mitigate adverse environmental and social impacts of our operations. Therefore, we continuously search for ways to improve our community programmes to ensure people are receiving the required social value from the programmes we deliver.

In 2019, we reviewed our material issues to incorporate local communities into the list of most material issues that the company needs to report on. This exercise helped us to focus our efforts on reporting the Corporate Social Responsibility (CSR) initiatives that provide the most vital support to the local Qatari community. These efforts are complemented by our drive to align our CSR programmes with national and international standards, such as the Qatar National Vision (QNV) 2030, and the United Nations Sustainable Development Goals (SDGs).

We also strive to be on par with the latest standards set by the Global Reporting Initiative (GRI) and the International Petroleum Industry Environmental Conservation Association (IPIECA).

Qatargas is committed to empowering local communities to prosper and supporting the social and economic development of Qatar. Through our community empowerment initiatives, we pay close attention to the strategic needs of national development. We engage with the community for the selection of the programmes that Qatargas sponsors; specific support requests are sent to Qatargas' Public Relations Department which are then followed by an in-depth evaluation process that includes a CSR committee with specific targets and criteria to fairly select the CSR programmes. Most of our CSR programmes focus on enriching the educational system in the oil and gas industry and improving capacity building, supporting the healthcare system, through sponsoring sporting clubs and implementing various sporting initiatives throughout the year.

Material Topic	Alignment to GRI	Alignment to UN SDGs	Alignment to QNV 2030
Local communities	GRI 413	UN SDG 3, 4, 5, 9, 11, 17	Social Develop- ment

Key Achievements and Highlights



Hence, the community programmes at Qatargas are segregated into; the Ras Laffan Industrial City Community Outreach Programme (COP) and Qatargas Social Investment Programmes (SIP). These programmes strive to fulfil the needs of the local community in Ras Laffan Industrial City and the rest of Qatar, respectively. In 2019, Qatargas invested approximately 7.1 million QR across all SIP and COP-related activities and initiatives. We are confident that through our current programmes, we will yield a greater social impact on the Qatari community. Moreover, 2019 was the year we focused on diversifying our community investment portfolio and spent a lot of time deciding on new stakeholders. We are quite confident that we will meet our target spending next year and leave a positive impact on our local communities.



To emphasise Qatargas' efforts at augmenting community outreach as per local community needs, a distinct CSR strategy was being developed in 2019 and is planned to commence in 2020. The CSR strategy sets a five-year roadmap for Qatargas' various CSR activities, governed by five CSR themes, with each theme to be implemented over a year.

Moving forward and as part of our commitment to supporting local communities, we aim to provide tailored support that is in accordance with our CSR strategy and local community needs.

Ras Laffan Industrial City Community Outreach Programme (COP)

To provide exceptional community support, in 2010 Qatargas has partnered with five other oil and gas companies - QP, ExxonMobil, Dolphin Energy, Oryx GTL and Shell - under the RLIC-COP programme to extend the sector's support to Qatar's Northern communities - Al Daayen, Al Kaaban, Al Khor, Al Shamal, Al Thakhira, and Smaisma - and in an effort to mitigate the environmental impact of the companies' operations. To focus our efforts with other member companies, in 2019, Qatargas attended weekly meetings with member companies and quarterly management committee meetings to discuss the impact that COP projects have had thus far on the Qatari community.

Currently, the selected COP projects adhere to three guiding pillars of the programme - capacity building, health and safety, and education. Community leaders submit their proposal to the local municipality which assesses the feasibility and social benefit of the project. The municipality then completes its assessment and findings are submitted to the COP. Projects are selected by the COP Working Group, which is the official administrative body responsible for shortlisting proposals. The team assesses whether pressing community needs are addressed by the project and accounted for in the final proposal. Individual COP members then assume a project management role for a select number of community initiatives and coordinate project implementation and spending. Finally, upon completion, projects are handed over to the relevant municipalities which are tasked with future maintenance and oversight. Currently, 12 projects are administered by the COP under various stages of planning and execution. Some of those COP programmes are presented below.

Bedar Community Initiative:

The Bedar Community Initiative was a response to the northern community needs and was implemented in 2019 in collaboration between the RLIC-COP and the Ministry of Interior. This initiative reaches out to the workers community through multiple training programmes and awareness workshops and aims to raise their awareness on their rights and duties, develop their skills, and involve them in the renaissance of the society and the preservation of its property. The initiative covered 61,776 workers from 12 companies in 2019.



Safe Journey Initiative:

The General Directorate of Traffic revealed that the number of fatalities related to traffic accidents reached 168 in 2018. Therefore, Safe Journey is an initiative dedicated towards school students of the northern community to educate them on road safety awareness to change their behaviour on road safety and ultimately have lower accidents in the community. The programme is planned over 5 years starting in 2019 and ending in 2023. For the first phase of the programme, which started in 2019, RLIC-COP conducted workshops for 1,800 students at six schools - two are girls only school, three are boys only schools and one is a mixed-gender school. The initiative took place for approximately four weeks in 2019 with the RLIC-COP representatives visiting each of the five schools for one day. Students would learn about driver safety by attending a workshop with multiple stations with different activities and prises to engage the students and raise their awareness on the issue. For instance, one of the stations at the workshop had a set up for a virtual reality scenario simulation of driving accidents consequences when having and not having the seatbelt on, while another station had a computer-based game with multiple choice questions on various driving regulations.



Al-Bairaq Program:

This initiative in partnership with Qatar University is the first of its kind in the Middle East and aims to connect high school students with university experiences in research and science, as well as, enhance scientific research values and skills in high school students and challenge their abilities. Al-Bairaq Program has 4 main tracks: I am Discovering Materials, I am a Researcher, Science in Sport, and Solving Problems.

Al-Bairaq Programme Track	Description of Track
CO I am Discovering Materials	Aims to introduce the students to variety of topics in materials science in an exciting way, and have the students use their learning to participate in a design project to design, test, and build their own product that uses the materials which are the focus on the module.
l am a Researcher	Targets students in grade 12 and gives them the opportunity to have hands-on research experience by working on research projects with Qatar University professors in many disciplines, where students are treated as research assistants rather than high school student.
Science in Sport	Deals with science applications in sport and targets students in grade 11. This track aims to have students combine science, math, technology, and engineering in one project related to sport.
Solving Problems	Targets students in grade 10 and is supervised by Al-Bairaq team. This track teaches students how to solve a problem, by producing a simulation of the problem and devise a creative solution to the problem.





Al-Bairaq team evaluated the students' knowledge and attitude towards research after participating in Al-Bairaq Program and results revealed a significant improvement in aspects related to personal attitude, an inclination towards scientific research and enhanced self-confidence.

Community Gardens and Walkways:

RLIC-COP extended support to AI Khor Municipality for the construction of two major projects in AI Thakhira City - AI Sharq Park and AI Thakhira Walkway. The construction on the two projects began in 2018 and they were officially inaugurated by senior officials of AI Khor Municipality and RLIC-COP in March 2019. The initiatives provide convenient green areas for residents of AI Thakhira and its park features a wide variety of amenities and services for families to enjoy. In addition, the 4,841 m2 AI Sharq Park consist of two play areas for young children, along with three shaded areas, a walkway and parking facilities. The 1.8-kilometre long AI Thakhira Walkway lines the Corniche area and has a cycling track for bikers, seating areas and play areas for young children.



Fencing of Al Majda Rowda

As a continuation of our support to protecting the 'Rowdat' or pastures in Qatar from damage to enhance greenery in the northern area, preserve and protect the environment, reduce air pollution by having more plants and trees, and raising awareness in the community about the importance of these pastures for grazing animals in general and camels in specific. Therefore, in 2019, RLIC-COP in collaboration with Al-Khor and Al Thakhira Municipality supported in fencing the 8,000 square meters of Al Majda Rowda located in Northern Qatar using 5,000 fences. I should be noted that spaces are left between fences to allow grazing animals from entering the pasture.

Tree Week:

This initiative, conducted by RLIC-COP in collaboration with the Ministry of Environment and Daayen Municipality, select different locations each year to plant trees with the help of school students from the norther area of Qatar. In 2019, Zara'a and the building of Daayen Municipality were selected for planting the trees. 5,900 trees were planted by 200 students. As part of the program, these students





are asked to take care of their respective planted trees. An assessment is conducted later on to check on the health and growth of the planted tree and the person with the best trees is given a prize. The aim of this tree week is to raise environmental awareness, preserve Qatar's natural resources and support in achieving QNV 2030.

Maqad Al-Duha Organised by Qudorate center:

RLIC-COP started supporting this programme in 2014 and continued in 2019 due to its importance in supporting women at Qatar. Maqad Al-Al-Duha hosts gatherings for elderly women every Tuesday morning at Al-Duha, where they re-live the history of their families and restore Qatar's past with all its beauty and splendor. This programme promotes the exchange of experiences and stories and brings the country's past to life. At the same time, it spreads awareness of health, environmental, and social issues through lectures and courses provided to them by specialists, doctors, and educators. Moreover, this programme endorses women's work and home businesses by hosting an event where all the products of these women are sold and supported. The programme also supports illiterate women to learn how to read and write.



Social Investment Programmes (SIP)

As the World's Premier LNG Company, we make every effort to support our local community. Our Social Investment Programmes cover education, environment, sports, health and safety, arts and culture, in addition to national-country specific programmes that are implemented across Qatar apart from the northern area - as the northern area is the sole focus area for the COP programme. Unlike our COP programme, where a working group of multiple entities are collaborating to implement the community outreach initiatives, we, at Qatargas, are solely responsible for our Social Investment Programmes which are in alignment with the Human Development Pillar set by QNV 2030, and as shown below. Details of our SIP initiatives undertaken during the reporting period, are included in this section.

SIP Programmes

 Education Improve awareness and knowledge of the oil and gas industry Improve the oil and gas industry's attractiveness Improve youth's innovative capabilities Invest in oil and gas research, seminars and trainings
 Environment Mitigate the adverse environmental effect of oil and gas operations Encourage environmentally friendly behaviour Donating equipment to reduce waste Biodiversity and respecting the life under sea
 Sports Improve Qataris overall health Sponsor youth sporting leagues and clubs Participate in Qatar Sport Day
Health and safety Health and safety awareness campaigns Blood donations Chronic disease reduction Arts and Culture

- Support community-led artistic programmes
- Participate in Qatar National Day



Knowledge and Education

Qatargas remains committed to supporting the knowledge and education of our community. We continued our support for the long-running Annual Plant Design Competition at Qatar University's Chemical Engineering Department. Having first begun in 2004 to provide students at the University with an opportunity to work on a plant design project to develop Qatar's local human capacity, the competition is now in its 15th year.



Furthermore, Qatargas in collaboration with the Ministry of Education in Qatar was a gold sponsor of the 16th International Junior Science Olympiad (IJSO) that was held in Qatar in 2019. Qatargas sponsored the Olympiad as part of our efforts to promote interests in science among school students and create world leaders in the fields of science, especially in Qatar. The IJSO is an annual science competition that comprises of tests on scientific topics, the tests are administered as both theoretical and practical tasks. The 16th edition of the Olympiad involved 400 participating students from 65 countries aged 15 and below. The objective behind this Olympiad is to motivate students to develop their talents in natural sciences and develop international communication in this field. It should be noted that some of the students participating were from Qatar; one won a gold medal, five won silver medals and twelve won bronze medals. This achievement of Qatari students is an outcome that motivates our organisation to further the support to such initiatives.

In addition, as we seek to reduce our ecological footprint, we sought to make the Olympiad environmentally friendly



and converted all paperwork to an electronic format. The competition was very successfully held through electronic devices and the Olympiad committee stated that the competition will continue with its environmentally friendly and paper-less format in future editions.

Finally, Young Budding Engineer Award 2019 was awarded to five students from AI Khor International School (AKIS). which is owned by Qatargas. This award is part of the International Engineering Congress organised by the Institute of Engineers India (IEI) competing against other students to engineer oil and gas related solutions that aim to reduce the environmental impact of the sector's operations, mitigate oil spillage, health and safety risks during gas leakages, and in emergency situations to reduce the impact of occupational incidents by using drones. Through the support received by their teachers, the winning students designed and engineered an autonomous oil spill cleaning robot, an oil and gas surveillance drone, and a multiple utility gesture glove. This prestigious award bears testimony to the guality of education accessed by the children of Qatargas employees and the global reach of Qatargas' investment in human development.



Sports Initiatives

On par with the Human Development pillar of Qatar National Vision 2030, Qatargas continued to organise a variety of sporting activities and games in 2019, including supporting the Junior Golf Programme in collaboration with the Qatar Golf Association. The programme has been supported by Qatargas for the past nine years and offers golf training, course etiquette, and competitions to those enrolled. It aims to encourage talented young golfers to join the national team and represent Qatar.

In 2019, Qatargas also continued the 12-years support for the Qatar Golf Association's (QGA) Junior Golf Programme. Through supporting Qatari golfers, numerous athletes have grown to become one of the best golfers in the



region. The Junior Golf Programme encourages all junior golfers to participate in QGA's weekly competitions. The QGA also conducts an 'Order of Merit' competition that identifies the Junior Player of the Year.

In addition, Qatargas held the Qatargas Golf Open tournament, which is a popular 2-day tournament attracting nearly 320 golfers, including players of the Qatar Golf Association, employees of Qatargas, its shareholders and other stakeholders. In parallel to the main tournament, there was also a competition of juniors on the Academy Course in which nearly 20 young golfers participated.

Moreover, in 2019, Qatargas extended support to the country's reserve and second division football league, in partnership with the Qatar Football Association, known as the Qatargas Under 23 (U23) League. Our company renewed its contract to sponsor the Qatargas League up to 2022. The League comprises of a total of 12 clubs that have participated in the 2019 season. The League, which continues to generate excitement in the resident community, helps contribute towards the local development of talented footballers, and sporting activities in general, prior to the 2022 FIFA World Cup to be held by Qatar.

The sixth Qatargas Chess Tournament, organised by the Qatar Chess Association and sponsored by Qatargas, saw 160 boys and girls across the Middle East between the ages of six and 16 take part in the intellectually stimulating competition over three days. The competition adhered to Swiss tournament rules for rapid chess, which features nine rounds that each last 25 minutes and gives participants only 10 seconds to make their moves. Our Company's very own Qatargas Cricket team participated in the 2018 Oil and Gas Cricket Tournament, held in Dukhan in November 2018, where employees represented the Company and competed against teams fielded by members of the energy industry here in Qatar. The 23 Qatargas players put in a strong performance and made it to the semi-finals. To complement Qatargas' commitment to sports, our employees and their families participated in the Qatar Sport Day during the reporting period, held on February 2019. Doha activities commenced with a walkathon, which ensured that all participants were sufficiently warmed up to take part in a selection of sports, including football, volleyball, basketball, table tennis, fun cricket, and mini golf at Aspire Zone. Participants were also able to check their blood pressure, blood sugar levels, and body mass index at a dedicated health check area set up by the Qatargas Medical Department.

Environmental Initiatives

As a conscientious corporate citisen, Qatargas organises several initiatives designed to raise awareness of environmental issues in the community, as well as encourage environmentally friendly behaviour. Qatargas regularly donates Information Technology equipment, such as computers, projectors, and electronic peripherals which have completed their professional life cycle at our Company. This serves the purpose of reducing electronic waste and provides those who lack financial resources access to equipment they might otherwise not be able to procure. We also plays an active role in protecting the environment, as we hosted numerous Ras Laffan beach clean-ups in the past few decades to protect Qatar's endangered Hawksbill turtle.

In 2019, Qatargas employees participated in the Qatar Petroleum-led beach cleanup at Ras Laffan Industrial City (RLC) beaches. The clean up across a long stretch of beach involved the collection and removal of several bags of rubbish and debris, including plastic waste, metal cans, wood and several other items. The primary objective of the beach clean-up effort is to ensure that hawksbill turtles arriving to nest on RLC's beaches will have safe and easy access to build their nests and lay their eggs. These hawksbill turtles are an endangered species and extremely sensitive to any disturbances on the beach. Hawksbills move along the sand by sweeping their fore flippers backwards. If they face any obstacles such as litter while doing so, they may return to the sea and eject their eggs



without burying them, giving them no chance to hatch a new generation. While the males spend their entire lives at sea, the females return to land for a single part of their life cycle and visit their nests repeatedly from March to June in the same season, to deposit an average of 100 eggs at a time.

Clean and uncluttered beaches are therefore critical to their survival. Qatargas has been participating in clean up initiatives along Ras Laffan beaches for this reason for more than a decade. We also support continued monitoring, identification and protection of nesting sites beaches and increase environmental awareness.

Moreover, we conducted the 'Go Green, Breathe Clean' campaign, which is a campaign highlights simple ways that the community can introduce into their homes and lives to extend reduce our environmental footprint. For more details about our 'Go Green, Breathe Clean' campaign, please refer to page 42.

Health and Safety Initiatives

Building a healthy and productive society is a fundamental objective of the Human Development pillar of Qatar National Vision 2030 and Qatargas' CSR initiatives.

Qatargas employees strive to support our local community. In 2019, Qatargas employees and contractors participated in a month-long blood donation drive, organised by our Medical Department in cooperation with Hamad Medical Corporation (HMC). The drive was held at the Qatargas Doha Head Office, Ras Laffan Headquarters and AI Khor Community. This year's drive saw approximately 380 Qatargas employees and contractors registered for the campaign and a total of 273 units of blood were collected. Qatargas has organised blood donation drives for the past 18 years, in cooperation with HMC. Our laboratory doctor and technologists work in communication with HMC to set the logistics required for a successful blood donation drive and play a role in reviewing clinical history, phlebotomy, and the storage, supply and transport of donations. Qatargas blood donation campaigns, which are an integral and long-standing part of our Corporate Social Responsibility initiatives, engage employees in a wide range of health awareness programmes and support local health organisations. Most significantly, the blood donation campaigns contribute to the efforts of health authorities to save the lives of thousands of patients every year and foster a culture of voluntary blood donation within Qatar.



Arts and Culture

Qatargas annually supports the Organising Committee of the Qatar National Day to plan and conduct the Qatar National Day celebrations such as the National Day Parade- which includes land, aerial and sea display, and Darb Al Saai - a major attraction that runs from December 9th to 20th with numerous booths from various entities organising activities for kids and families, as well as, food vendors that sell traditional Qatari food among other items. We value our contribution to the Qatar National Day which has very high positive impact on the community and supports Qatar as a nation.

Business partnerships/memberships for social responsibility

Qatargas understands that success is achieved through partnering with various stakeholders and business partners to achieve the optimal community needs. In 2019, Qatar extended its partnership with the below organisations:



The Abdullah Bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development

Qatargas is a member of the Abdullah Bin Hamad Al-Atiyeh International Foundation for Energy and Sustainable Development. Established in 2015, it is Qatar's first non-profit organisation founded to deal with energy and sustainable development issues with support from His Highness the Father Amir Sheikh Hamad Bin Khalifa Al Thani. The Foundation delivers independent research and analysis that directly assists decision makers in the energy industry.



The Mary Kay O'Connor Process Safety Center-Qatar, Texas A&M University at Qatar;

As part of our multifaceted efforts to ensure the operational safety of our employees, contractors, stakeholders, and members of the communities around our facilities, Qatargas has been an active member of the Mary Kay O'Connor Process Safety Center - Qatar. The Center is an internationally renowned institution and the first of its kind in the Middle East, located at Texas A&M University at Qatar. The Center signed a five-year Memorandum of Understanding in 2013 with Qatargas to provide mutual support in the area of implementing industrial process safety to the highest international standards.

The process safety programme is dedicated for students pursuing their postgraduate studies where specific, process safety inventions are developed by students and presented to Qatargas employees. Employees evaluate the projects and the successful project will be implemented at Qatargas processing plants.



Gas Processing Center, Qatar University

Qatargas is a member of the Qatar University Gas Processing Center (GPC). The GPC's primary role is to provide professional services and expertise and engage in a multidisciplinary research with practical application to fulfill the needs of the industry, academia and community at large. In addition, the GPC offers testing services, technical workshops, academic training and competitions. In close collaboration with our partners and investors, GPC has developed a well-earned reputation for successfully developing research solutions that leads to greater efficiency in production, distribution, and consumption of energy. Professional services offered by GPC have now expanded to include a diverse array of consultancy services on gas processing to its consortium of members. Moreover, the GPC, as a gas processing center under the College of Engineering at Qatar University, motivates students to explore the gas industry and learn more about it. Qatargas is a consortium member of the GPC since 2014 of the Gas Processing Center.





APPE

APPENDIX A - GR		GRI E Oisclo	ciality operating Company Limited October
GRI Content Index	Disclosure	Page	Reason for omission
GRI 101: Foundation 2016	GRI 101 does not include any disclosures	· · ·	
General Disclosures			
	Organisational profile		
	102-1 Name of the organisation	1-2	
	102-2 Activities, brands, products and services	14 - 15, 26	
	102-3 Location of headquarters	8	
	102-4 Location of operations	2	
	102-5 Ownership and legal form	21	
	102-6 Markets served	26	
	102-7 Scale of organisation	14 - 15, 27, 83	Net revenue is confidential
	102-8 Information on employees and other workers	83	
	102-9 Supply chain	27, 30 - 31	
GRI 102: General Disclosures 2016	102-10 Significant changes to the organisation and its supply chain	21, 30 - 31	
	102-11 Precautionary principle and approach	31 - 35	
	102-12 External initiatives	89 - 96	
	102-13 Memberships of associations	97	
	Strategy		
	102-14 Statement from senior decision-maker	8 - 9	
	102-15 Key impacts, risks and opportunities	10	
	Ethics and integrity	23	
	102-16 Values, principles, standards, and norms of behavior	12	
	102-17 Mechanism for advice and concerns about ethics	23	
	Governance		
	102-18 Governance structure	21	

"For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for Disclosures 102 - 40 to 102 - 49 align with appropriate sections in the body of the report."

GRI Content Index	Disclosure	Page	Reason for omission
	Stakeholder engagement		
	102-40 List of stakeholder groups	16	
	102-41 Collective bargaining agreements	80	
	102-42 Identifying and selecting stakeholders	16	
	102-43 Approach to stakeholder engagement	16	
	102-44 Key topics and concerns raised	17 - 19	
	Reporting practice		
	102-45 Entities included in the consolidated financial statements	21	
	102-46 Defining report content and topic boundaries	2	
GRI 102: General Disclosures 2016	102-47 List of material topics	19	
	102-48 Restatements of information	2	
	102-49 Changes in reporting	2	
	102-50 Reporting period	2	
	102-51 Date of most recent report	2	
	102-52 Reporting cycle	2	
	102-53 Contact point for questions regarding report	2	
	102-54 Claims of reporting in accordance with GRI Standards	2	
	102-55 GRI content index	99 - 103	
	102-56 External assurance	2	
Material topics			
Economic topics			
Economic performance			
	103-1: Explanation of the material topic and its boundary	26 - 27	
GRI 103: Management Approach 2016	103-2: The management approach and its components	26 - 27	
	103-3: Evaluation of the management approach	26 - 27	
GRI 201: Economic performance 2016	201-1: Direct economic value generated and distributed	26 - 27	

GRI Content Index	Disclosure	Page	Reason for omission
GRI 203: Indirect economic impacts 2016	203-2: Significant indirect economic impacts	29 - 30	
Environmental topics			
Energy			
	103-1: Explanation of the material topic and its boundary	33 - 37	
GRI 103: Management Approach 2016	103-2: The management approach and its components	33 - 37	
	103-3: Evaluation of the management approach	33 - 37	
GRI 302: Energy 2016	302-1: Energy consumption within the organisation	37	
Water			
	103-1: Explanation of the material topic and its boundary	33 - 37	
GRI 103: Management Approach 2016	103-2: The management approach and its components	33 - 37	
	103-3: Evaluation of the management approach	33 - 37, 42	
GRI 303: Water 2016	303-1: Water withdrawal by source	43	
	303-3: Water recycled and reused	43	
Emissions			
	103-1: Explanation of the material topic and its boundary	33 - 38, 41, 43 - 44	
GRI 103: Management Approach 2016	103-2: The management approach and its components	33- 38, 41, 43 - 44	
	103-3: Evaluation of the management approach	33 - 38, 41, 43 - 44	
	305-1: Direct (Scope 1) GHG emissions	38 - 39	
	305-2: Energy indirect (Scope 2) GHG emissions	38 - 39	
GRI 305: Emissions 2016	305-4: GHG emissions intensity	39	
	305-5: Reduction of GHG emissions	39	
	305-7: Nitrogen Oxides (NOX), Sulfur Oxides (SOX), and other significant air emissions	41	
Waste			
	103-1: Explanation of the material topic and its boundary	39 - 40	
GRI 103: Management Approach 2016	103-2: The management approach and its components	33 - 37, 39 - 40	
	103-3: Evaluation of the management approach	33 - 37, 39 - 40	

GRI Content Index	Disclosure	Page	Reason for omission
	306-1: Waste generation and significant waste-related impacts	44	
	306-3: Waste generated	44	
GRI 306: Waste 2020	306-4: Waste diverted from disposal	44	
	306-5: Waste directed to disposal	44	
Social topics			
Employment			
	103-1: Explanation of the material topic and its boundary	78 - 79	
GRI 103: Management Approach 2016	103-2: The management approach and its components	78 - 79	
	103-3: Evaluation of the management approach	78 - 79	
	401-1: New employee hires and employee turnover	84 - 85	
GRI 401: Employment 2016	401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	85	
Occupational health and safety			I
	103-1: Explanation of the material topic and its boundary	49 - 54	
	103-2: The management approach and its components	49 - 54	
GRI 403: Occupational Health and	103-3: Evaluation of the management approach	49 - 54	
Safety 2016	403-1: Workers representation in formal joint management-worker health and safety committees	54 - 57	
	403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	57 - 58	
	403-3: Workers with high incidence or high risk of diseases related to their occupation	57 - 58	
Training and education			
GRI 103: Management Approach 2016	103-1: Explanation of the material topic and its boundary	78 - 80	
	103-2: The management approach and its components	78 - 80	
	103-3: Evaluation of the management approach	78 - 80	
GRI 404: Training and education 2016	404-1: Average hours of training per year per employee	88	

GRI Content Index	Disclosure	Page	Reason for omission
Asset integrity and process safety			
	103-1: Explanation of the material topic and its boundary	62 - 65	
GRI 103: Management Approach 2016	103-2: The management approach and its components	62 - 65	
	103-3: Evaluation of the management approach	62 - 65	
GRI OG Process safety and asset integrity	OG13: Number of process safety events by business activity	63 - 64	
Other topics			
Local communities			
	103-1: Explanation of the material topic and its boundary	90 - 91	
GRI 103: Management Approach 2016	103-2: The management approach and its components	90 - 91	
	103-3: Evaluation of the management approach	90 - 91	
GRI 413: Local communities 2016	413-1: Operations with local community engagement, impact assessments, and development programs	91 - 97	



APPENDIX B - ACRONYMS

Acronym	Definition
A&R	Accounting and Reporting
ACGIH	American Conference of Governmental Industrial Hygienists
AIHA	American Industrial Hygiene Association
AKIS	Al-Khor International School
AKS	Al Khor Security, Safety and Environment
ALARP	As Low as Reasonably Practical
BAT	Best Available Technology
всм	Business Continuity Management
BOG	Boil-Off Gas
BSC	British Safety Council
СВТ	Computer-Based Training
CDP	Career and Development Planning
CEO	Chief Executive Officer
СМ	Crisis Management
CNA-Q	College of the North Atlantic Qatar
COP	Community Outreach Programme
CPSE	Centre for Public Safety Excellence
CSMS	Contractor Safety Management System
CSR	Corporate Social Responsibility
сто	Consent to Operate
ECP	Environmental Compliance Programme
EIA	Environmental Impact Assessment
EMS	Environmental Management System
EP	Employee Profile
EPSC	Ensure Protection Steering Committee
ER	Emergency Response
ERM	Enterprise Risk Management
ERS	Emergency Response and Security
ESHIA	Environmental, Social and Health Impact Assessment
ETA	Estimate Time of Arrival
FEED	Front End Engineering Design

Acronym	Definition
FID	Final Investment Decision
FMT	Flare Management Team
GAF	Global Award Foundation
GHG	Greenhouse Gas
GPC	Gas Processing Centre
GRI	Global Reporting Initiative
HAZMAT	Hazardous Material
HAZOP	Hazard and Operability Study
HFO	Heavy Fuel Oil
нмс	Hamad Medical Corporation
HSEQ	Health, Safety, Environment & Quality
HSMP	Heat Stress Prevention Management Procedure
ICV	In-Country Value
IDP	Individual Development Plan
IEI	Institute of Engineers India
н	Industrial Hygiene
liF	Incident and Injury Free
IJSO	International Junior Science Olympiad
ILO	International Labour Organisation
МО	International Maritime Organisation
IOGP	International Association of Oil and Gas Producers
IPCC	International Panel on Climate Change
IPIECA	International Petroleum Industry Environmental Conservation Association
IRS	Incident Reporting System
ISO	International Organisation for Standardisation
ITR	Instrument Technical Rooms
IWMA	Integrated Waste Management Approach
JBOG	Jetty Boil-Off Gas
JCI	Joint Commission International
JFM	Job Family Models
JSA	Job Safety Analysis

KPIKey Performance IndicatorL&DLearning & DevelopmentLDARLeak Detection and RepairLEEDLeadership in Energy and Environmental DesignLESLaffan Environmental SocietyLLALand Lease AgreementLNGLiguefied Natural GasLSFOLow Sulphur Fuel OilLSOOatargas Learning SolutionsLSRLife Saving RulesLTILost Time Incident FrequencyMARPOLMarine Environmental AssessmentMERMembrane BioreactorMMEMinistry of Municipality and EnvironmentMMFMinistry of Public HealthMOIMinistry of Public HealthMORManage Operations RisksMORMaterial Safety Data SheetMSAMaterial Safety Data SheetMTCMaterial Safety Data SheetMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPAMaterial Safety Data SheetMTPAMitigate Volume Threats	Acronym	Definition
InstructionInstruction of the construction of the constructionL&DARLeak Detection and RepairLEEDLeak Detection and RepairLEEDLaddership in Energy and Environmental DesignLESLaffan Environmental SocietyLLALand Lease AgreementLNGLiquefied Natural GasLSFOLearning Solutions OnlineLSOOatargas Learning SolutionsLSNLife Saving RulesLTILost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MERManagement Leadership TeamMLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMinistry of Public HealthMOIMinistry of Public HealthMORManage Operations RisksMSAMater AgreementMSAMaterial Safety Data SheetMTCMaterial Safety Data SheetMTPAMillion Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPAMitigate Volume Threats		
LinkLinkLDARLeak Detection and RepairLEEDLeakership in Energy and Environmental DesignLESLaffan Environmental SocietyLLALand Lease AgreementLNGLiquefied Natural GasLSFOLow Sulphur Fuel OilLSOLearning Solutions OnlineLSOOatargas Learning SolutionsLTILost Time IncidentMRRMarine Pollution (International Convention for Prevention of Pollution FrequencyMBRManagement Leadership TeamMLTManagement Leadership TeamMMFMinistry of Municipality and EnvironmentMBRMinistry of Public HealthMOIMinistry of Public HealthMORManage Operations RisksMBRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMRRMaterial Safety Data SheetMRRMilion Tonnes Per AnnumMTPAMiligate Volume ThreatsMTPAMiligate Volume Threats		
Leadership in Energy and Environmental DesignLEEDLeadership in Energy and Environmental DesignLESLaffan Environmental SocietyLLALand Lease AgreementLNGLiquefied Natural GasLSFOLearning Solutions OnlineLSOQatargas Learning SolutionsLSRLife Saving RulesLTILost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMLTManagement Leadership TeamMMFMinistry of Municipality and EnvironmentMOPHMinistry of Public HealthMORManage Operations RisksMSDMaterial Safety Data SheetMSAMaterial Safety Data SheetMTCMaterial Safety Data SheetMTPAMillion Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPAMitigate Vo	L&D	Learning & Development
LesLaffan Environmental SocietyLLALand Lease AgreementLNGLiquefied Natural GasLSF0Low Sulphur Fuel OilLSOQatargas Learning SolutionsLSNOatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentMRPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMLTMangement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMinistry of Public HealthMORManage Operations RisksMOUMontoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilition Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPAMitigate Volume Threats	LDAR	Leak Detection and Repair
LLALand Lease AgreementLNGLiquefied Natural GasLSFOLow Sulphur Fuel OilLSOQatargas Learning SolutionsLSOQatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRManagement Leadership TeamMLTMinistry of Municipality and EnvironmentMMFMinistry of InteriorMOIMinistry of Public HealthMORManage Operations RisksMSAMaterial Safety Data SheetMSAMaterial Safety Data SheetMTCMilion Tonnes Per AnnumMTAMilion Tonnes Per AnnumMTAMitigate Volume ThreatsMTAMitigate Volume Threats<	LEED	Leadership in Energy and Environmental Design
LNGLiquefied Natural GasLSFOLow Sulphur Fuel OilLSOLearning Solutions OnlineLSOOatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMLTManagement Leadership TeamMMFMulti-Media FiltrationMMFMinistry of Municipality and EnvironmentMOIMinistry of Public HealthMORMonitoring and Reporting RegulationsMSRMonitoring and Reporting RegulationsMRRMaterial Safety Data SheetMTCMilion Tonnes Per AnnumMTPAMilion Tonnes Per AnnumMTPAMilion Tonnes Per AnnumMTAMilion Tonnes Per AnnumMTAMinigate Volume ThreatsMTPAMinigate Volume ThreatsM	LES	Laffan Environmental Society
IndicationExperimentationLSFOLow Sulphur Fuel OilLSODatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentLTIFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMLTManagement Leadership TeamMMFMinistry of Municipality and EnvironmentMOIMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMaster AgreementMSDSMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPANorth Field Expansion	LLA	Land Lease Agreement
Learning Solutions OnlineLSOLearning Solutions OnlineLSOOatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentHTFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMLTManagement Leadership TeamMMFMulti-Media FiltrationMMFMinistry of Municipality and EnvironmentMOIMinistry of InteriorMOQMemorandum of UnderstandingMRRMontoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMTTMitigate Volume ThreatsMTFANorth Field Expansion	LNG	Liquefied Natural Gas
LSOQatargas Learning SolutionsLSRLife Saving RulesLTILost Time IncidentLTIFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMEAManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMinistry of InteriorMOPHManage Operations RisksMoRMenorandum of UnderstandingMSAMoitoring and Reporting RegulationsMSAMater AgreementMSAMaterial Safety Data SheetMTPAMilion Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPAMitigate Volume ThreatsMTPAMitigate Volume Threats	LSF0	Low Sulphur Fuel Oil
Life Saving RulesLTILost Time IncidentLTIFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMEAMarine Environmental AssessmentMLTManagement Leadership TeamMMFMulti-Media FiltrationMOIMinistry of Nunicipality and EnvironmentMORManage Operations RisksMORMonitoring and Reporting RegulationsMSAMaster AgreementMSDSMaterial Safety Data SheetMTPAMilion Tonnes Per AnnumMTPAMitigate Volume ThreatsMTPANorth Field Expansion	LSO	Learning Solutions Online
LTILost Time IncidentLTIFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMEAMarine Environmental AssessmentMLTManagement Leadership TeamMMFMulti-Media FiltrationMMFMulti-Media FiltrationMOIMinistry of InteriorMORManage Operations RisksMORMemorandum of UnderstandingMRRMoltoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMTPAMitigate Volume ThreatsMFNorth Field Expansion	LSO	Qatargas Learning Solutions
LTIFLost Time Incident FrequencyMARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMEAMarine Environmental AssessmentMLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMinistry of InteriorMORManage Operations RisksMOUMemorandum of UnderstandingMRRMaterial Safety Data SheetMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMFENorth Field Expansion	LSR	Life Saving Rules
MARPOLMarine Pollution (International Convention for Prevention of Pollution from Ships)MBRMembrane BioreactorMEAMarine Environmental AssessmentMLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMinistry of InteriorMOPHMinistry of Public HealthMORMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMFENorth Field Expansion	LTI	Lost Time Incident
MARPOLPrevention of Pollution from Ships)MBRMembrane BioreactorMEAMarine Environmental AssessmentMLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMinistry of InteriorMORManage Operations RisksMOUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMFMitigate Volume ThreatsNFENorth Field Expansion	LTIF	Lost Time Incident Frequency
MEAMarine Environmental AssessmentMLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMinistry of InteriorMOPHMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMFENorth Field Expansion	MARPOL	
MLTManagement Leadership TeamMMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMulti-Media FiltrationMOIMinistry of InteriorMoPHMinistry of Public HealthMORManage Operations RisksMOUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMilion Tonnes Per AnnumMFENorth Field Expansion	MBR	Membrane Bioreactor
MMEMinistry of Municipality and EnvironmentMMFMulti-Media FiltrationMOIMinistry of InteriorMoPHMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMFENorth Field Expansion	MEA	Marine Environmental Assessment
MMFMulti-Media FiltrationMOIMinistry of InteriorMoPHMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMFENorth Field Expansion	MLT	Management Leadership Team
MOIMinistry of InteriorMoPHMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaster AgreementMSDSMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMFENorth Field Expansion	MME	Ministry of Municipality and Environment
MoPHMinistry of Public HealthMORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaster AgreementMSDSMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMFENorth Field Expansion	MMF	Multi-Media Filtration
MORManage Operations RisksMoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaster AgreementMSDSMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMVTMitigate Volume ThreatsNFENorth Field Expansion	моі	Ministry of Interior
MoUMemorandum of UnderstandingMRRMonitoring and Reporting RegulationsMSAMaster AgreementMSDSMaterial Safety Data SheetMTCMedical Treatment CaseMTPAMillion Tonnes Per AnnumMVTMitigate Volume ThreatsNFENorth Field Expansion	MoPH	Ministry of Public Health
MRR Monitoring and Reporting Regulations MSA Master Agreement MSDS Material Safety Data Sheet MTC Medical Treatment Case MTPA Million Tonnes Per Annum MVT Mitigate Volume Threats NFE North Field Expansion	MOR	Manage Operations Risks
MSA Master Agreement MSDS Material Safety Data Sheet MTC Medical Treatment Case MTPA Million Tonnes Per Annum MVT Mitigate Volume Threats NFE North Field Expansion	MoU	Memorandum of Understanding
MSDS Material Safety Data Sheet MTC Medical Treatment Case MTPA Million Tonnes Per Annum MVT Mitigate Volume Threats NFE North Field Expansion	MRR	Monitoring and Reporting Regulations
MTC Medical Treatment Case MTPA Million Tonnes Per Annum MVT Mitigate Volume Threats NFE North Field Expansion	MSA	Master Agreement
MTPA Million Tonnes Per Annum MVT Mitigate Volume Threats NFE North Field Expansion	MSDS	Material Safety Data Sheet
MVT Mitigate Volume Threats NFE North Field Expansion	мтс	Medical Treatment Case
NFE North Field Expansion	MTPA	Million Tonnes Per Annum
	MVT	Mitigate Volume Threats
NEDA National Fire Protection Association	NFE	North Field Expansion
	NFPA	National Fire Protection Association

Acronym	Definition
NGDP	National Graduate Development Programme
NGO	Non-Governmental Organisation
NORM	Naturally Occurring Radioactive Material
NOx	Nitrogen Oxides
OCIMF	Oil Companies International Marine Forum
OECD	Organisation for Economic Cooperation and Development
OH&S / OHS	Occupational Health & Safety
OPCO	Qatargas Operating Company Limited
OSHA	Occupational Safety and Health Administration
PLE	Premier Leadership Events
PME	Periodic Medical Exam
PM-GM	Performance Management and Goal Management
POSCO	Plant Operation Safety Committee
PPE	Personal Protective Equipment
PRS	Ensure Process Safety
PSE	Process Safety Event
ΡΤΑΙ	Phillip Townsend Associates Inc
PTW	Permit to Work
QG	Qatargas
QGA	Qatar Golf Association
QGHQ	Qatargas Headquarters
QGMS	Qatar Management System
QGN	Qatargas North
QGS	Qatargas South
QNV	Qatar National Vision
QP	Qatar Petroleum
RI	Recordable Injuries
RLIC	Ras Laffan Industrial City
RO	Reverse Osmosis
ROPME	Regional Organisation of Protection of Marine Environment
SCBA	Self-Contained Breathing Apparatus



Acronym	Definition
SDG	Sustainable Development Goal
SDS	Safety Data Sheet
SEEMP	Ship Energy Efficiency Management Plan
SF LMS	SuccessFactors Learning Management System
SHE	Safety, Health and Environment
SHE&Q	Safety, Health, Environment & Quality
SIMOPS	Simultaneous Operations
SIP	Social Investment Programme
SIR	Security Incident Reporting
SME	Small Medium Enterprises
SMS	Spent Molecular Sieve
SMS	Safety Management System
SOLAS	Safety of Life at Sea
SP	Succession Planning
SPA	Sale & Purchase Agreement
SR	Sustainability Report
SRU	Sulphur Recovery Unit
твт	Toolbox Talk
тс	Technical Competence
ТСА	Technical Competence Assessment
TEMS	Training Events and Management Systems
TIPW	Treated Industrial Process Water
TMS	Talent Management System
TMSA	Tanker Management Self-Assessment
TRIF	Total Recordable Injuries Frequency
TRIR	Total Recordable Injury Rate
U23	Under 23
UN	United Nations
USEPA	United States Environmental Protection Agency
voc	Volatile Organic Compound
WBCSD	World Business Council for Sustainable Development
WFA	Workforce Analytics
WHO	World Health Organisation





Sustainability Report 2019