



قطر للطاقة
QatarEnergy
LNG

Sustainability Report

Securing a Sustainable
and Cleaner Energy Future

2022



Welcome

We are proud to present our 2022 Sustainability Report. Covering the 2022 calendar year (ending 31 December), we provide a transparent and balanced representation of our approach, progress, and future direction.

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We welcome feedback on this report and our wider approach:



We disclose information for all QatarEnergy LNG operations under our direct control within the State of Qatar. This includes 16 joint venture companies. As part of our sustainability approach, we report on the topics deemed to be material by our stakeholders (based on objective, expert analysis – see page 8). However, given that safety remains our utmost priority, the report opens with Social impact (Society), followed by Environment and Governance chapters. Our sustainability approach and reporting are mapped to the **Qatar National Vision (QNV)**, the nation's framework for sustainable development and a high standard of living for its people by 2030; and the **United Nations' Sustainable Development Goals (UN SDGs)**. This report has been prepared in accordance with the Global GRI Sustainability Reporting Standards considering the Oil and Gas sector standards, and we have successfully completed the GRI Content Index Service (see page 64).

Leadership Message

Sustainability is core to who we are as a company, an industry leader, an economic driver, and employer of choice. As the world's premier LNG company and a reliable provider of cleaner energy, we must continue to prioritise sustainability. To achieve the ambitious environmental, safety, expansion goals we have set for ourselves, sustainability must remain our focus.

The last few years have been characterised by energy market volatility, rising inflation, and supply chain disruption. The “energy trilemma” of security, affordability, and decarbonisation only reinforces the importance of LNG in enabling energy security and affordability for millions of consumers around the world. QatarEnergy LNG's role in the global energy sector has become more important than ever by providing value to the State of Qatar and our stakeholders around the world.

At QatarEnergy LNG, we recognise Qatar LNG's key role in the global shift towards low-carbon energy - it is why we were proud to launch an ambitious Implementation Roadmap for our Environmental Strategy in 2022. This Roadmap outlines QatarEnergy LNG's leading contribution to the QatarEnergy Sustainability Strategy and State of Qatar sustainability targets and highlights our progressive and forward-looking position on emerging environmental risks in a rapidly changing global market, including comprehensive plans to address key issues such as climate change and our value-chain environmental footprint.

I am pleased to note that we have reduced our GHG emissions footprint by 12% since 2012 and our flaring in 2022 alone was 14% lower than 2021, culminating in a greater than 70% reduction since 2011. We further strengthened our methane detection and monitoring program, while reducing our shipping environmental footprint through successful Green Award certification for our LNG vessels. We have prioritised environmental innovation and research with a range of ongoing collaboration initiatives with national research institutions and successfully out-planted over 15,000 juvenile corals from our first of its kind Coral Nursery to offshore recipient sites as our continued commitment to preserving Qatar's sensitive marine biodiversity.

We can only be sustainable by looking after the many thousands of people who work for us, either as direct employees or in our supply chains. We can be very proud of zero fatalities for multiple years running, with no lost-time injuries among employees in 2022. We have invested heavily in learning and development, with 18% more training hours, and we have added even more valuable diversity to our teams – with increases in female recruitment and Qatari national employment. In addition to providing more than 5,000 jobs and local supply chain opportunities, we have given back to our communities through social investments and charity partnerships around education, environment, safety, and health.

Across all this work, responsible and transparent practices of governance have been fundamental. You will see several accomplishments in the final chapter of this report that demonstrate why we place great emphasis on premier performance, business integrity, risk management, and innovation.

It remains for me to thank the QatarEnergy LNG team, our valued shareholders, loyal customers, governmental and non-governmental partners, and all other stakeholders for another solid year. I look forward to delivering further value in the year ahead as we fuel a smarter and more sustainable future.

Khalid bin Khalifa Al Thani
Chief Executive Officer, QatarEnergy LNG



Highlights of the Year

In 2022, we achieved many milestones on our journey to create financial and non-financial value for stakeholders and society. Here are a few highlights.

Contributing to Society

Zero

employee/contractor fatalities and employee Lost Time Injuries



80%

reduction in occupational illness¹



¹ Excludes heat stress incidents.

95%

new employee onboarding satisfaction



Exemplary

Covid-19 award from ExxonMobil Qatar



18%

increase in training hours



CRYSTAL

in best Qatarisation process



800+

employees received Long Service Awards



3.2%

more women employed.



1.9%

increase in Qatarisation rate



5.6X

increase in social investment



Protecting the Environment

Launched

Comprehensive Environmental Strategy Implementation Roadmap.



12%

GHG intensity reduction since 2012.



14%

flaring reduction between 2021 and 2022 and >70% since 2011.



GREEN AWARD

Maintained Certification for all 69 long-term chartered LNG vessels.



15,000

juvenile corals out-planted in Qatari waters from QatarEnergy LNG' first of its kind national coral nursery.



Established

dedicated Environmental Research Collaboration Framework with national research centers



Responsible Governance

26 CSR

stakeholder engagements



10

Management steering committees



ISO 28000

security recertification



100%

completion of emergency response KPIs



95%

customer satisfaction



Zero

late or off-spec deliveries, 4 years running.



QatarEnergy LNG: Safe, reliable fuel for nearly 40 Years

We are one of the largest LNG producers in the world. For nearly four decades, we have been safely and reliably supplying energy to customers all over the world.

Headquartered in Doha, Qatar, we develop, produce and market hydrocarbons from the world's largest non-associated natural gas field. In addition to producing LNG, we are also a leading exporter of natural gas, helium, condensate, and associated products. In 2022, we operated 14 liquefaction units or "trains", producing 77 million metric tonnes (MT) of LNG. We employed 5,258 people on permanent contracts (an increase of 4.2% compared to 2021).

We are 70% owned by QatarEnergy and 30% by venture partners. Together, we are committed to operating responsibly, and managing our sustainability performance in line with the QNV 2030 and the SDGs, while maintaining profitability and creating value for all stakeholders.

Pillars

1. Safety, Health and Environmental (SHE) Performance



4. Quality & Flawless Execution



2. High Calibre Workforce



5. Customer Satisfaction



3. Efficient and Reliable Operations



6. Financial Performance



Vision

The World's Premier LNG Company

Mission

QatarEnergy LNG 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.

QatarEnergy LNG 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 fulfillment of The Qatar 2030 Vision and the nation's future.

Values

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, optimise business and financial performance, and ensure continuous improvement; we always put the greater interest of the company first.



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 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 Uphold our Reputation

At QatarEnergy LNG we always do what we say, we promote honest and transparent communication and conduct our business ethically.



Sustainability at QatarEnergy LNG

As shown on the previous page, sustainability is embedded within the company mission, and sustainability spans all six pillars of the QatarEnergy LNG Strategy Plan. Our Code of Ethical Conduct further enshrines a commitment to responsible business.



In the last year, we developed a Sustainability Framework to show how we structure our approach and contribute to wider sustainable development. Material topics are clustered under focus areas, which in turn support three main pillars. The pillars have been mapped to both the QNV 2030 and the SDGs. Progress is monitored by Key Performance Indicators (KPIs), which is shown in detail in the Disclosure appendix.

Pillar: Contributing to Society			
Focus Area	Safety	Talent	Community
Material Topics	<ul style="list-style-type: none"> Workplace safety and medicine Process safety 	<ul style="list-style-type: none"> Training and development Diversity and inclusion Qatarisation 	<ul style="list-style-type: none"> Local communities Indirect economic impact
QNV Alignment	Human Development	Human Development	Social Development
UN SDG Contribution			

Pillar: Preserving our Environment		
Focus Area	Climate	Resources
Material Topics	<ul style="list-style-type: none"> Greenhouse gas emissions Energy 	<ul style="list-style-type: none"> Waste management Water and effluents Biodiversity and ecosystems
QNV Alignment	Environmental Development	Environmental Development
UN SDG Contribution		

Pillar: Responsible Governance		
Focus Area	Governance	Innovation
Material Topics	<ul style="list-style-type: none"> Governance (ensure protection), ethics and transparency Risk, business continuity, crisis management Sustainable procurement 	<ul style="list-style-type: none"> Customer satisfaction Financial performance Efficient and reliable operations Innovation and clean technology
QNV Alignment	Economic Development	Economic Development
UN SDG Contribution		

More about the governance of our Sustainability Framework on [page 53](#).

Material Issues

The 19 issues shown in our Strategic Framework have been identified via a robust materiality process involving research and review of peer companies and industry standards, employee surveys, prioritisation of issues based on impact, and internal validation by QatarEnergy LNG management.

In monitoring and reporting on our material issues, we mitigate current and emerging risks. These may include safety incidents, workforce retention, reputation, and regulatory compliance. We also position the business to maximise new commercial opportunities, such as access to markets and attracting diverse talent. In 2022, we reviewed the issues to ensure they reflect current trends and stakeholder expectations. The names of some of the material topics have been updated based on stakeholder reviews and feedback.

Stakeholder Engagement

To maintain accountability and remain ahead of evolving trends, our Sustainability approach is shaped by the views of 10 stakeholder groups:



In 2022, we engaged with these groups via a variety of channels, including quarterly management meetings, interviews, social media, [press releases](#), the Tawasul newsletter, the [Pioneer Magazine](#), careers fairs, CEO forums, guest lectures, conferences and exhibitions, supplier tenders, and our [Sustainability Reports](#). We also leveraged industry and NGO partnerships, as part of our research and innovation (see [page 59](#)), diverse talent development ([page 22](#)), and social investments ([page 29](#)).

A particular highlight of the year for internal stakeholders was our annual Town Hall, with parallel events in Doha and Al-Khor. Over three days, employees were able to join the CEO and Management Leadership Team in an open forum to understand our performance, Strategic Plan, and future direction. A popular Q&A gave employees the chance to question leaders on diverse topics, including sustainability.

Find out more about [stakeholder engagement methods](#)



Getting in the World Cup Spirit

To build momentum around the FIFA World Cup Qatar 2022 (supported by significant QatarEnergy LNG sponsorship), we ran a number of events for employees and their families, our customers and wider communities. These included a competition to win tickets, with 12,974 employees and family members entering and a lucky 7,032 winning tickets to watch matches.

We welcomed 27 customers to the QatarEnergy LNG Skybox for a front-row seat and networking opportunities, and in the communities, we ran philanthropic sporting initiatives as far afield as South Korea.

All the while, we ensured any safety risks were mitigated and prepared for, with dedicated new measures in place.



Thought Leadership on Climate Innovation

At the 28th World Gas Conference, our experts shared insights on the role of LNG in a sustainable future. Attracting approximately 9,500 attendees, including policymakers and business leaders, the event is one of the biggest in our industry's calendar. QatarEnergy LNG speakers included Noora Saad Al-Qahtani, Head of Maintenance (Materials); Nayef Al-Shammari, Senior LNG Marketer; and Amine Yacef, Commercial Analysis Lead. You can find out more about Nayef Al-Shammari's research paper on "The Role of LNG In the Energy Transition" on [page 42](#).

We also sponsored a multi-stakeholder event on "Carbon Management and Climate Change: CO2 Conversion and Mineralisation". The event brought together the Gas Processing Center, Qatar University, the Ministry of Environment and Climate Change, and industry experts.

The Carbon Management Workshop highlighted the main research activities related to the management of carbon dioxide emissions in Qatar, and how to contribute to the national efforts to manage carbon emissions and confront global warming.

Dr. Khalid Kamal Naji
Dean of College of Engineering, Qatar University



Finally, not forgetting the world's future sustainable energy experts, we conducted a series of carbon footprint workshops in schools and colleges. More than 300 students were introduced QatarEnergy LNG' Personal Carbon Footprint (PCF) Calculator, and invited to propose solutions to pressing climate challenges. Participating schools and colleges included Qatar Academy for Science & Technology, Liverpool John Moores University, Al Khor International School, and Texas A&M University Qatar (TAMU). Moreover, the PCF Calculator was rolled out internally as well to our employees and contractors.

[Click here to access QatarEnergy LNG PCF Calculator](#)

Contributing to Society

Sharing value begins with attracting talent, and empowering employees to grow in a safe and inclusive working environment. It extends to Corporate Social Responsibility (CSR) investments in our neighborhoods, including local skills and job creation programs that support Qatarisation.

Pillar	Contributing to Society		
Focus Area	Safety	Talent	Community
Material Topics	<ul style="list-style-type: none"> Workplace safety and medicine Process safety 	<ul style="list-style-type: none"> Training and development Diversity and inclusion Qatarisation 	<ul style="list-style-type: none"> Local communities Indirect economic impact
QNV Alignment	Human Development	Human Development	Social Development
UN SDG Contribution			

Highlights of the Year

Zero
employee/contractor fatalities and employee Lost Time Injuries

80%
reduction in occupational illness¹

¹ Excludes heat stress incidents.

18%
increase in training hours

CRYSTAL
Award in best in Best Qatarisation Progress

3.2%
more women employed.

1.9%
increase, Qatarisation rate

5.6X
increase in social investment



Safety

Embracing an Incident and Injury Free (IIF) safety culture is at the heart of our company mission and is one of the QatarEnergy LNG Values. As outlined in our Direction Statement, we commit to making the health and safety of individuals our priority.

Upholding International Standards

Our Health, Safety, Environment and Quality (HSEQ) systems were recertified to ISO 9001 (Quality), 14001 (Environment) and 45001 (Occupational Health and Safety) in 2022. Our procedures remain aligned to the highest international standards and principles, including those of the International Labour Organisation, the Organisation for Economic Cooperation and Development, the World Health Organisation, the International Association of Oil & Gas Producers and the American Petroleum Institute. In turn, we meet or exceed benchmarks set by the Qatar Occupational Safety and Health Administration. Contractors are protected by an enhanced Contractor Safety Management system, and all receive the same level of safety training as our own staff.



Ensure Protection

With a dedicated Steering Committee, our 'Ensure Protection' programme is a key component of all QatarEnergy LNG management systems. It requires that all the processes, systems and tools to identify and mitigate hazards and risks. Applications include our 'manage operational risks', 'manage personal safety' and 'manage permit to work' protocols. In 2022, zero 'Ensure Protection' non-conformities were found by the external HSEQ audit.

Safety Culture

We operate on the principle that all incidents are preventable. In practice, this means a proactive approach focused on prevention including training, awareness campaigns and other engagement methods to promote vigilance, teamwork, and empowerment to speak out about any concerns. Each year begins with a 'Safe Start' video, which highlights key safety messages. The theme for 2022 was the launch of 'Fundamentals of Protection', which complements our 'Life Saving Rules' personal safety programme with focus on process safety. As a milestone in process safety awareness, the Fundamentals form a disciplined framework for managing complex operations, highlighting risks that are most likely to lead to major events or fatalities. They emphasise taking the right technical actions and decisions to reduce unsafe acts and conditions.

Life Saving Rules

Life saving rules are primarily designed to protect the individual. Consequences of non-compliance potentially affect a comparatively small number of people or result in relatively minor significance to environment/ business.



Life Saving Rules focus primarily on the prevention of personal safety incidents in some high-risk activities.



Fundamentals of Protection

Highlighting areas that are most likely to lead to major process and personal safety events and multiple fatalities. It is a disciplined framework for managing complex operations.



Focused on taking the right technical actions and decisions in the field to reduce unsafe acts and conditions and covers a wider range of issues.



Throughout the year, mandatory safety training helps to maintain and build competency, with more than 25 modules between class room and computer based trainings available in English and Hindi . Employees manage their training requirements via the SuccessFactors Learning Management System (for contractors it is via SharePoint). In 2022, this scaled significantly as a result of Major Project work gathering pace from both employees and contractors post-pandemic. Overall, 95,207 personnel completed Safety training (4% employees and 96% contract workers). This equates to 3,806 hours for employees and 16,522 hours for contractors.

Meanwhile, strategic safety campaigns (approximately every quarter) focus on key issues for frontline workers through diverse engagement methods, including posters, training, and toolbox talks. Furthermore, we issue a monthly calendar of 'Safety Moments' that is circulated company-wide monthly. These Safety Moments serve as a crucial tool in strengthening QatarEnergy LNG' emphasis on health and safety, aiding in the continuous cultivation of a robust safety culture across our organisation. This initiative is aligned with our scheduled HSEQ/Operations events, campaigns, and initiatives, further reinforcing our dedication to prioritizing the well-being of our employees and stakeholders. By regularly disseminating these Safety Moments, we actively promote a proactive and vigilant approach to safety, supporting the overall development of sustainable practices within our operations. We extend our safety culture principles and practices to contractors through training and engagement, including the QatarEnergy LNG Safety Contractor Forum.

Safety Moments 2022 Calendar

January Safe Start 2021 Fundamentals of Protection	February Fundamentals of Protection	March Environmental Management	April Heat Stress Prevention
Special Edition Safety Moment: Stay Safe and Healthy During Ramadan			
May H2S Safety	June Safety Observation and Intervention	July Situational Awareness	August Safety Leadership and the Role of Leaders
September Fire Safety in the Workplace and Home	October Process Safety	November Quality (FIXED)	December Crisis Management within QatarEnergy LNG

And finally, whenever there is a recordable safety incident, a 'safety alert' is issued company-wide and to shareholders. It describes the incident, investigation results and corrective actions, demonstrating our commitment to ensuring a transparent and continuous-improvement approach to safety culture.

[Find out more about our Safety approach](#)



Ensuring safety during the FIFA World Cup

During the 2022 FIFA World Cup, QatarEnergy LNG initiated a dedicated FIFA Taskforce to implement robust safety measures, ensuring the protection of our staff and assets. In addition to our standard safety protocols, we applied additional security measures to mitigate potential risks, including strengthening access control measures to ensure that only authorised personnel had entry to our facilities. We also took steps to prevent trespassing, such as erecting fencing around our Doha Headquarters building, ensuring that our sites remained secure.

Through a series of regular Taskforce Bulletins, guidance was provided to our employees, emphasizing safe travel routes and modes of transportation to and from work. Crowd safety advice was also shared to educate our employees on how to navigate crowded areas during the event, prioritizing their safety at all times.

Moreover, we remained committed to implementing comprehensive COVID prevention measures aligned with Ministry of Public Health guidelines, including testing, enhanced sanitisation protocols, and promoting vaccination.

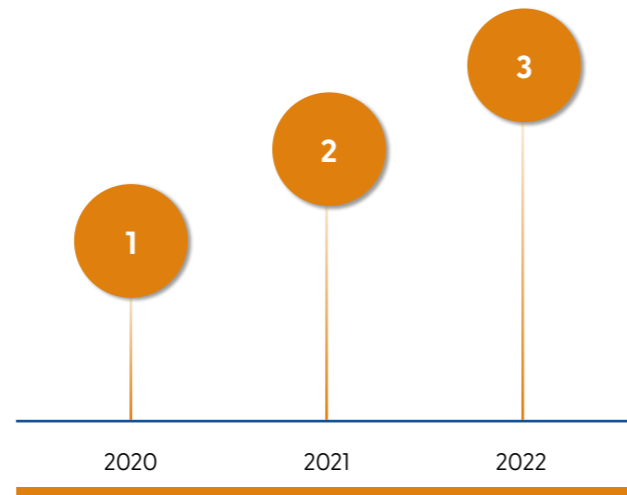
The safety and well-being of our employees and the protection of our assets remained our utmost priority during the 2022 FIFA World Cup, ensuring a secure and healthy environment for everyone involved.

2022 KPI Performance

For two years running, we can report zero employee fatalities and zero employee Lost Time Injuries. There were three recordable injuries among employees relating to heat stress, handling tools, and pressure release, which have been thoroughly investigated and addressed.

See all performance data on [page 64](#).

Total Recordable Injuries, employees



Safety Day

We are pleased to announce the resounding success of the first-ever QatarEnergy LNG Safety Day, a remarkable event organised by the HSE&Q Group as part of our unwavering commitment to maintaining an Incident and Injury Free workplace. Held over two days, this interactive exhibition showcased the safety achievements, initiatives, and programs within QatarEnergy LNG. The event attracted over 7,000 employees and contractors, including the Chief Executive Officer, Management Leadership Team, and shareholder representatives, who visited the event at QatarEnergy LNG North, South, NFXP, and offshore locations. Safety Day featured various attractions such as state-of-the-art Emergency Response fire truck demonstrations, safety-themed drama performances, tree-planting, award ceremonies, interactive information booths, children's artwork submissions, and quizzes and competitions. The positive feedback received from visitors, participants, and stakeholders has been overwhelming, and we invite everyone to share their thoughts and suggestions for future improvement. We extend our heartfelt gratitude to all those who contributed to the success of this event, and we look forward to QatarEnergy LNG Safety Day 2023, continuing our commitment to safety and celebrating our collective achievements.



Process Safety and Risk

Alongside launching the Fundamentals of Protection programme, we continued working to ensure that process safety risks associated with Major Accident Hazards were properly managed. Our 'Manage Operations Risk' process is continuously enhanced to ensure proper identification, assessment, and management of operations risks. Safety case operationalisation and barrier management are currently progressed to ensure people are aware of the process safety hazards, and their barriers and that these barriers are maintained their effectiveness. The initiative will eventually lead to enhanced process safety culture, and improvement in the process safety performance.

Find out more about our [Process Safety approach](#)



Promoting Safety Vigilance at the 12th Process Safety Symposium

We worked once again with TAMU and ConocoPhillips Qatar to deliver the 12th edition of the Qatar Process Safety Symposium. The joint symposium brought together industry and academia experts, attracting more than 700 delegates, including eight speakers from QatarEnergy LNG. The theme, "Vigilance", highlighted the role of leadership in fostering an effective and open safety culture that identifies organisational blind-spots, anticipates future challenges, and is alert to potential risks. Khalifa Ahmed Al-Sulaiti, our Chief HSEQ Officer commenced proceedings, followed by a keynote speech by Fahad Mohammed Al-Khater, Chief Operations Officer – Offshore, Terminals and Refining.

The strategic and ongoing interaction of academic researchers and industry practitioners strengthens the proactive culture of safety that benefits industry's vital human resources, its infrastructure, and the global supply chain that relies on dependable sources of energy.

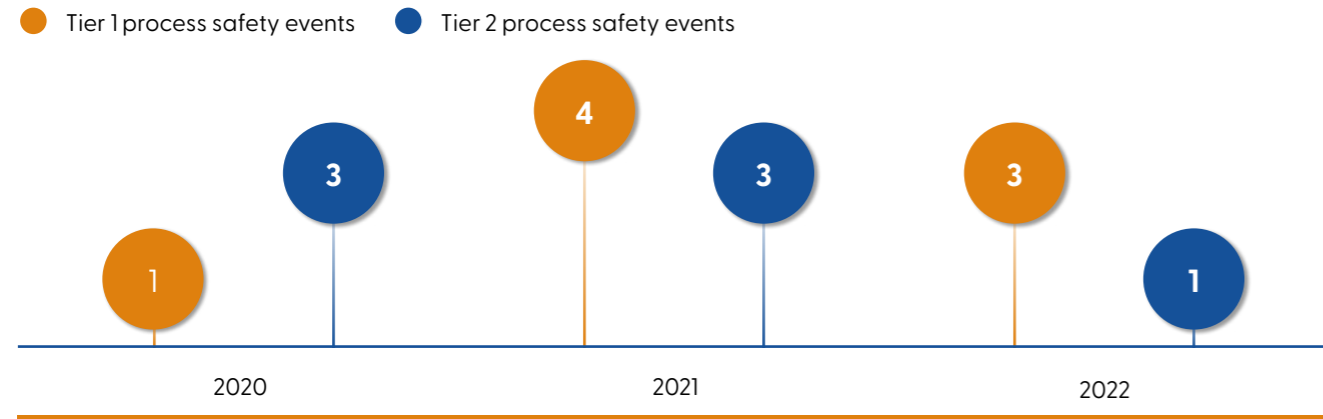
Dr. César Octavio Malavé
Dean of TAMU Qatar



2022 KPI Performance

There were four process safety events recorded, of which three were Tier 1 (highest risk) and one Tier 2 (high risk). The Tier 1 events related to a pin hole leak upstream of an emergency shutdown isolation valve: a pressure transmitter tubing rupture in a turbine compartment and a disconnection of a metering skid's pressure gauge. The Tier 2 event related to a hydrocarbon leak between the emergency shutdown and the pig receiver. Detailed investigations have been conducted for all four events, with lessons learned and remedial actions taken.

Process Safety



Industrial Hygiene

Moreover, in terms of Industrial Hygiene developments during the year included combining the Lead and Asbestos Management plans into one Hazardous Materials Management Procedure. By the end of Q4 2022, we successfully met all our Industrial Hygiene KPI targets. This includes achieving 100% completion of regulatory compliance audits for radiation protection, meeting Food Safety Hygiene and Worker Welfare inspection targets and maintaining a Total Recordable Occupational Health Illness Rate below the target.

See all performance data on [page 64](#).

1. There has been some improvement regarding stakeholder engagement for Worker Welfare. A new initiative has been undertaken to conduct joint inspections with Qatar Energy RLIC Health and Hygiene Department for the camps.
2. Completion of the Health Risk Assessment (HRA) for QatarEnergy LNG assets and common facilities.

Occupational Medicine

Our Health Management Plan consists of five pillars: occupational medicine; primary care; emergency services; administrative services; and medical insurance. We are pleased to report that, on the first three pillars, we offer free primary healthcare, person-centered occupational health and emergency medical services for those working at our plants, offshore facilities, headquarters offices and the Al Khor site. A key development in 2022 was the rollout of eLearning to improve the understanding of mental health and encourage a culture that proactively supports and manages psychological wellbeing. Meanwhile, we continued to scale up mass health screenings and vaccination drives, as well as delivering campaigns on blood donations, hand hygiene, breast cancer, cardiopulmonary resuscitation, and more topics.

Medical Department Accredited by Joint Commission International



As part of our commitment to providing high-quality healthcare services to the community, we are proud to announce that QatarEnergy LNG Medical has maintained the prestigious Joint Commission International (JCI) accreditation. QatarEnergy LNG Medical is the first network of primary care and occupational medicine centers in Qatar to achieve this recognition, including offshore first aid stations for the first time ever.

Find out more about our [Occupational Health approach](#)



Giving Blood and Saving Lives

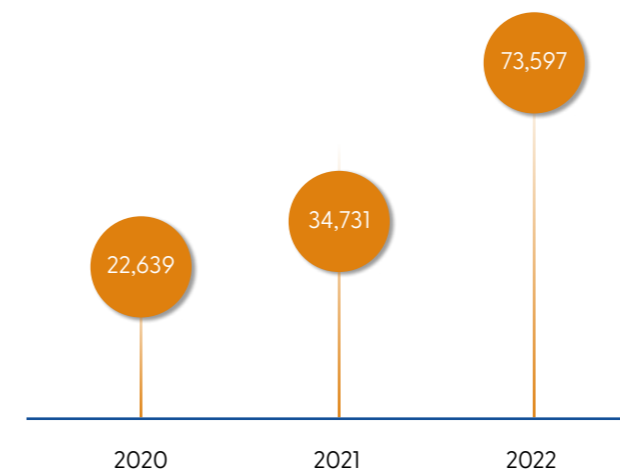
After a gap of two years due to Covid-19 restrictions, employees, contractors and family members in Doha, Ras Laffan and Al Khor got behind our blood donation drive. A record 366 people donated blood during the two-month campaign, in coordination with Hamad Medical Corporation.

QatarEnergy LNG has been organizing blood donation drives for the past 20 years, in cooperation with HMC. This initiative is aimed at engaging employees in a wide range of health awareness programs and support local health organisations. These drives help save the lives of thousands of patients every year, as well as foster a greater culture of voluntary blood donation within society.

Dr. Mohamad Hamad Al-Naemi
QatarEnergy LNG Medical Services Manager



Mass health screenings



See all performance data on [page 64](#).

2022 KPI Performance

This year we recorded an 80% reduction in occupational illness (excluding heat stress), and we more than doubled mass medical screenings. Our Influenza vaccine campaign delivered 2,189 vaccine shots, while our blood donation campaign attracted 366 employee donors.



Exemplary
Covid-19 performance and response Award from ExxonMobil Qatar

Talent

In QatarEnergy LNG, our people are our most valuable asset, we value, recognise, and appreciate our people and their families; we foster teamwork and collaboration; we develop ourselves to be our best; we trust and empower one another.

Training and development

A wide range of development activities have been provided to QatarEnergy LNG employees to support their development. QatarEnergy LNG' approach to development follows the 70-20-10 model:

- 10% 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 attendance at training courses and through coaching sessions.

Identify Learning and Development Needs

The company undertakes a two-tiered approach to identifying development opportunities. The employee conducts a competence self-assessment and then the supervisor completes the supervisor assessment. At this point the employee and supervisor will agree on the final assessment outcome and identify development opportunities.

QatarEnergy LNG Competence Framework

The company's competency framework guarantees that highly talented employees at QatarEnergy LNG are always present. This is achieved through a clearly defined process ensuring that employees' development needs are adequately identified and addressed using various talent management tools as described below.

QatarEnergy LNG Competence framework consists of Competence Profile Validation, Competence Assessment/Verification, and Competence Development plans to close any gaps identified.

At QatarEnergy LNG, we have two sets of competences: Behavioral Competences and Technical Competences.

- **Behavioral Competences Framework:** This framework consists of three competence categories which are aligned with the company's values, these three categories are: Core, Job Generic and Leadership competences. Behavioral competences levels required are mapped to the positions by the line management, employees are annually assessed against the levels required to identify any areas of development.
- **Technical Competences Framework:** Ensures that skills and knowledge required to perform effectively and safely on the job are well identified, documented and demonstrated by employees at all the time.
 1. **Job Profile Validation:** This process consists of updating the existing competences in the profiles to ensure validity and relevance to the role. The validation is triggered by the updates of the job descriptions and by newly created positions. These profiles are revisited every three years or upon the request from the line department.
 2. **Competence Assessments/Verification:** Consists of employees completing their Self-Assessments against their assigned Technical Competence profiles, followed by a supervisor final assessment to compare employee's current Competence Level Demonstrated (CLD) against the role's Competence Level Required (CLR). If employees show any gaps, Development Plan is then required to close them. Development Objectives are recommended by supervisors to employees and can be achieved on-the-job learning, by coaching/Mentoring or by attending formal training (70:20:10).
 3. **Competence development plans:** Two types of development plans are offered to employees.
 - a. Professional Development Plan (PDP): This plan is provided to employees to close their technical and behavioral gaps in their current job, gaps are highlighted in the employee's career worksheet for supervisor to address.
 - b. Talent Development Plan (TDP): This plan is offered to employees to bridge the gaps between their current and future role, only selected Talent pool members go through the TDP. As with other developments, under TDP employees are assigned development activities based on the identified skill gaps in the future role.

Training Activities

QatarEnergy LNG provided a variety of Training activities to QatarEnergy LNG employees during 2022:

In-house Behavioural Training

QatarEnergy LNG provided in 2022 In-House Behavioral Training Catalogue which containing more than 90 Training sessions. Twenty-seven courses were conducted virtually due to COVID precautionary measures in quarter one of 2022. From Q2, following the reduction of COVID restrictions, face to face training sessions resumed. All courses are mapped to QatarEnergy LNG core and job generic competences these include Communication Skills, Teamwork and Presentation Skills. These courses are designed based on experiential learning methodology where learning activities, role plays and learning games are used to impart knowledge, while keeping the theoretical part to minimum level. All courses are published in QatarEnergy LNG' Learning Management System.

In-House Technical Training

This training was targeted to enhance employees' technical competences and increase their ability and confidence to work in a high-performance environment. Critical classroom trainings were delivered in compliance with all pandemic precaution measures to ensure safety and business continuity are not impaired. Part of these technical courses are delivered by QatarEnergy LNG Subject Matter Experts (SMEs). Examples of these training courses include Safety Leadership training, Well Management and Incident Command training.

Shareholder training

QatarEnergy LNG have partnered with its shareholding companies who offer training to train and develop QatarEnergy LNG employees. A major part of the courses offered under this umbrella are of technical nature due to the business activities of the company. During 2022, more than 40 courses were delivered by QatarEnergy LNG shareholder companies as part of this synergy. The course categories included Project Management, Operations, Maintenance, Subsurface, Commercial, and Shipping. During 2022, more than 200 employees have benefited from these courses.

Leadership Development Programmes:

The Company's leadership philosophy is based of Leading Self, Leading Others, and Leading the Business. During 2022, the company conducted the following programmes:

- **Activate:** The program consists of two phases that allow the national graduates in last phase of IDP, or those who recently completed their development program to gain the concept of personal leadership skills.
- **Emerging:** This programme supports development of Leads and Supervisors. Participants focus on both personal and team leadership and cover topics that include: developing a leadership mindset, managing time and energy, delivering results through others, and team coaching.
- **Cadre:** This leadership development programme targets selected Heads. The programme focuses on leading with emotional intelligence, team performance, decision making and operational excellence.
- **Executive:** This programme supports the ongoing development of selected Managers and Division Managers. Key topics include: Situational Leadership, Strategic Leadership, Building Coalitions, Negotiation, and Change.

The leadership programmes were successfully delivered both virtually and face to face during Q1 and Q2. In 2022, a total of 125 seats were offered to selected employees to attend the leadership programmes.

Leadership Alumni:

The alumni seeks to provide ongoing Leadership Development and networking opportunities for leaders who have graduated from QatarEnergy LNG Leadership Development programs. During 2022 the Company offered six unique Alumni sessions delivered by Executive Education Providers and Shareholder. Examples of these sessions included: The future of the LNG industry, Human Performance Management and Developing emotional and cultural intelligence.

[Find out more about our Training, Engagement and Reward approach](#)



Developing our Future Leaders

Our Leadership Development program is based on the philosophy of "leading self, leading others, and leading the business". In 2022, it included courses such as:

- Supervising the QatarEnergy LNG Way, which includes employee relations, driving premier performance and finance.
- Activate for Graduate in last phase of Individual development plan (IDP) and recently confirmed and completed their IDP.
- Emerging to support the development of leads and supervisors by obtaining knowledge on leading self and others..
- Cadre to support the development of heads by providing the required skills on leading self, others, and the business.
- Executive to support the development of managers by providing them with the required skills and executive knowledge on leading self, others, and the business.
- Leadership Alumni seminars for alumni leaders who graduated from QatarEnergy LNG Leadership Development programs.

2022 Performance

This year we saw an 18% increase in training overall.



Diversity and inclusion

We proactively invest in attracting and developing diverse talent. Resourcing plays a critical role in ensuring business continuity and supporting our expanding organisation. Therefore, it was imperative for us to prioritise enhancements to our Recruit Talent process including reducing the average time to hire for vacant positions. Through proactive recruitment campaigns and the implementation of "Approved to Hire" processes, we have successfully minimised the time to offer as well as achieving a 95% acceptance rate on "spot offers." These process enhancements not only enable us to onboard qualified candidates with ease but also strengthen our talent pipeline by tapping into an external pool of experienced and pre-approved candidates.

Acquired knowledge and skills from hands-on experience will help develop our most valuable resource, our human capital, and ensure our industry remains strong well into the future.

Khalid bin Khalifa Al Thani
QatarEnergy LNG CEO



In line with the QNV 2030 and the UN SDGs, in 2022, we conducted a detailed review into our benefits to assess their impact on women. One of the outcomes was changing our housing and social allowances to empower local married women.

Employees and those outside of the company are invited to confidentially submit any concerns or grievances via an online tool, with all reports monitored by our Internal Audit team and appropriate actions taken.

Find out more about our [Diversity and Inclusion approach](#)



95%
employee onboarding satisfaction

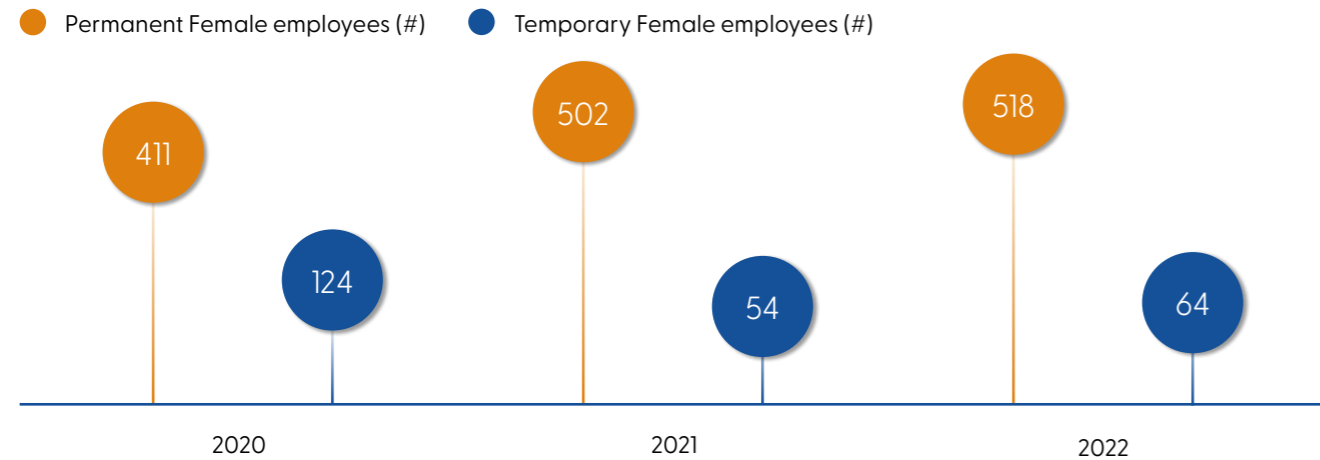
800+
employee received Long Service Awards



2022 Performance

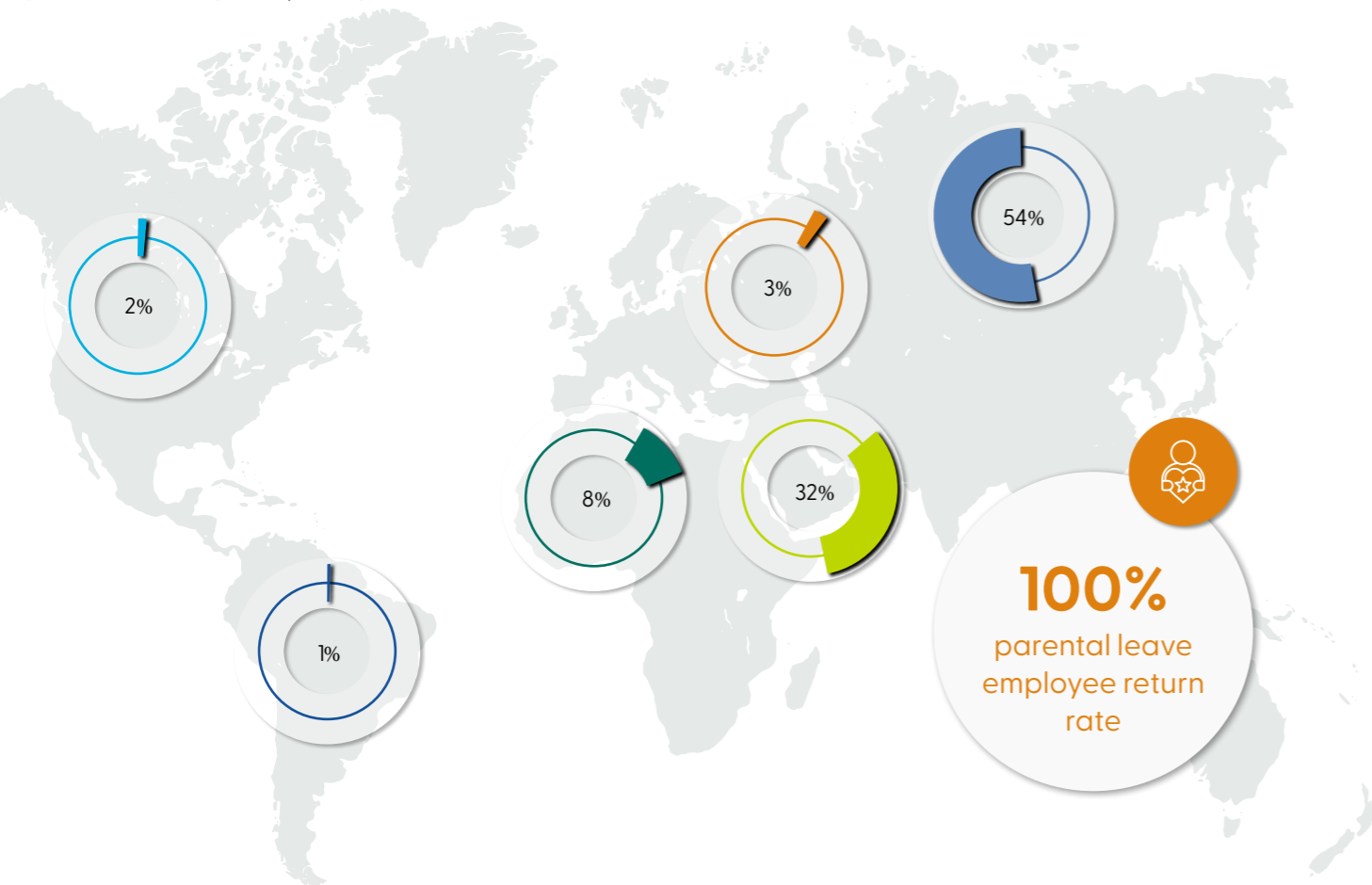
We saw a 3.2% uplift in female employees during 2022. The workforce age profile was dominated by those aged 30-49.

Female employment



Employees by region - 2022

● Asia ● Africa ● South America ● Oceania
● Middle East ● Europe ● North America



See all performance data on [page 64](#).

Qatarisation

We are on track to meet our 50% Qatarisation rate by 2030. Delivering on this involves a number of QatarEnergy LNG departments and programs, including:

- **National Graduate Development Programme (NGDP):** This program is designed to provide a framework of standard and effective guidelines for a competence-based training and development programme that will enable Qatari Graduates to become fully qualified professionals. The Individual Development Plan (IDP) is tailored specifically for the graduate.
- **Technician Certificate Programme (TCP):** This programme is designed to provide Qatari Nationals with the technical skills (Mechanical, Process, Instrumentation and Electrical) through classroom education and on-the-job training. Upon joining the programme, the trainee will be given an appropriate introduction to the company's mandatory courses and training phases.
- **Non-Technical Training Programme (NTP):** This competence-based training program is for the National Trainees to be prepared towards their first level of establishment.
- **Undergraduate Scholarship Programme (USP):** This programme is designed to support and upkeep high performing national students who are interested in continuing their studies.

Qatari employees have exclusive access to various resources and platforms for further development and engagement, including the CEO Forum, Qatarisation Forum and coaching through their quarterly and annual progress reviews.

Find out more about our [Qatarisation approach](#)



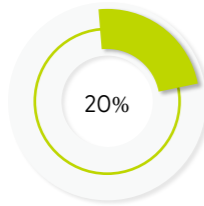
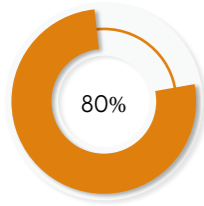
Opportunities for local graduates and school students

- In 2022, we sponsored 30 Qatari employees: 25 in higher national diplomas and 5 in bachelor's degrees.
- Technician Certificate Program: In 2022, 25 Qatari employees were involved in this program.

Our five-year Qatarisation intake plan includes the Hayyakum program to attract talented nationals from high schools and universities. In 2022, Hayyakum successfully reached 22 schools, as well as delivering a social media campaign to attract Qatari youth. Meanwhile, we participated in careers fairs at the universities.

Qatarisation by gender

● Male ● Female



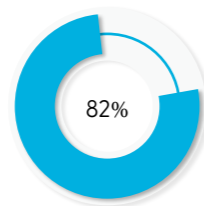
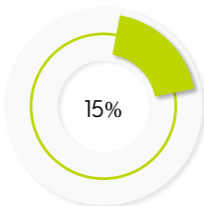
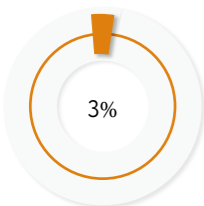
2022 KPI Performance

The number of Qatari nationals in our full-time workforce increased by 1.9%, in the last year. This included six more Qatari women and one more Qatari individual in management positions.

See all performance data on [page 64](#).

Qatarisation by employment level

● Senior Management (#) ● Middle Management (#) ● Staff Level (#)



Community

We invest in our communities through integrated CSR initiatives that has a wider economic impact. By supporting thriving communities, we build our own commercial resilience to risk, while simultaneously harnessing the potential of our employees to share knowledge, foster young talent, and contribute towards the sustainable progress of our communities.

Our Social Investment policy supports financial and non-financial contributions, with a focus on community development, education, environment, safety and health , to create a lasting positive impact in our communities.

Sustainability
Evolving all CSR programs into sustainable projects which positively impact communities.

Visibility
Proactively raising employee and community awareness with an Enhanced Communication Plan for each initiative.

Process and evaluation
Implementing robust criteria to improve selection of programs

Partnership
Enhancing and enriching programs through internal and external stakeholder collaboration and Working Group targets

Find out more about our [Local Communities approach](#)



30,000th
ship loaded at Ras Laffan Port



CSR Mission
Promote and strengthen QatarEnergy LNG brand as a responsible, reliable LNG producer through a sustainable CSR investment.



13 Years Supporting Community Development in Northern Qatar

We focus our social investments primarily around communities in the northern areas, notably Al Khor and the northern region of Qatar. As a member of the Ras Laffan Industrial City Community Outreach Program (RLIC COP) for 13 years, we are playing our part in building trust and co-operation between industrial companies in the north and local communities. The COP serves to benefit the local community by working in partnership with public institutions in supporting several cultural, educational, health, environmental, security and safety initiatives. Every project is designed to meet both local and national needs, supporting the Qatar National Vision 2030.

In 2022, RLIC COP delivered a number of sustainable developments initiatives, Examples included:

Bedar 2: This national initiative in partnership with the Ministry of the Interior supports outreach to workers in the northern region of Qatar raising awareness of critical guidelines such as safety, health, and culture, promoting community values and principles, ensuring their awareness of their own rights, and developing a sense of security. It also supports workers' involvement in the development of society and the preservation of their property through a series of training programs and awareness workshops on safety, health, customs, traditions and community culture. Bedar 2 stems from the Qatar 2030 strategy, upholding local and international human rights of laborers.

Maqad Al Duha: This development program provides female retirees and senior citizens in the northern parts of Qatar. Organised by the local Quodorat Training and Development Centre, it encourages the full participation of older women in various community projects and meaningful activities, which will help ensure progress towards a developed and prosperous local community. Their unique knowledge of Qatari traditions and culture is particularly important to share with the next generation.

Magic carpet This virtual reality experience reflects and represents Qatar as a country and its history from the 1980s until present. It is an educational interactive experience that develops student's knowledge and understanding of how Qatar has changed over the decades.

Al Gannas Falconry Association: In partnership with the Qatari Society of Al Gannas, RLIC COP is helping keep alive the cultural tradition of falconry that goes back more than 5,000 years. We sponsored the Al Gannas Falconry Association in the Ras Laffan Falconry Championships, which celebrates the heritage sport of falconry registered by UNESCO as a Representative Intangible Cultural Heritage of Humanity. The championships included various activities to inspire local children about the history of falconry in their region.

Al Khor and Al Thakhira Majlis: Renovation of the Majlis building at the Corniche of Al Khor, restoring cultural designs that incorporate Arabic and Qatari traditional symbols. Visitors to Al Khor and Al Thakhira can now enjoy these serene spaces, as well as the views across Al Khor City. During the World Cup, the Majlis was used to welcome VIPs, giving them a warm welcome to Qatari culture and tradition.

Al Daayen Youth Center Football Court: The COP continued its support by fencing the football court and provide some facilities that would serve the players such as toilets and changing rooms.



Passing the World Cup Joy in South Korea

As part of our "Pass the Joy" CSR initiative, we at QatarEnergy LNG delightedly distributed football kits and gear to children at South Korea's Myoungryun Child Welfare Centre. Sharing the excitement of hosting the 2022 FIFA World Cup, this effort represents our continued commitment to supporting children's development in South Korea. For 13 years, we've actively participated in Korean CSR initiatives, fostering opportunities and providing resources for underprivileged children, inspiring them to reach their full potential.

It gives all of us in Qatar great pleasure to pass the joy of this historic event to children in South Korea. This is particularly delightful as the South Korean national team is playing in this year's World Cup.

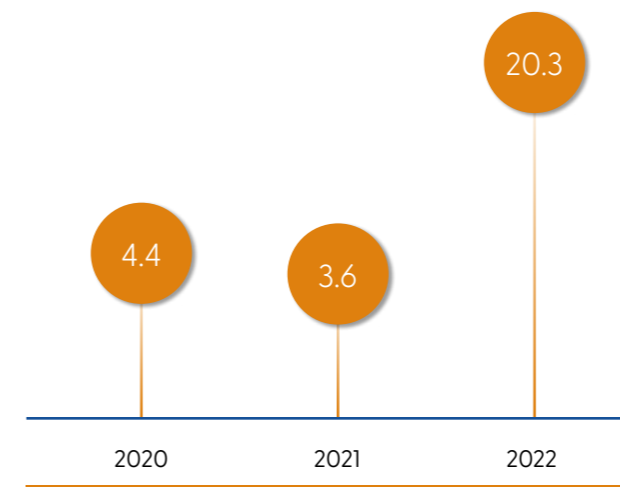
Mashel Attiq Al-Merekh
General Manager of QatarEnergy LNG's Korea Liaison Office



Equipment and furniture donations

In 2022 we have continued our commitment to donating redundant IT equipment, including PCs, laptops, printers, and monitors, to charitable organisations and community groups. In 2022, we also donated unused furniture, including beds, purchased during the Covid-19 pandemic for use in off-shore locations. We always ensure that items are in good condition before donating them. By revitalizing surplus equipment and furniture, we not only contribute to the betterment of our communities but also uphold our commitment to conserving valuable natural resources and minimizing waste.

Social investment (QAR million)



2022 KPI Performance

Total social investment rose by 560% to QAR 20.3 million. This significant uplift was due to our support of the FIFA World Cup in Qatar, and its associated community and employee activities and donations.

See all performance data on [page 64](#).

Indirect economic impact

As well as driving Qatarisation through our employment and community investments, we strive to contribute to wider economic development in Qatar by managing our operations efficiently and reliably, building strong relationships with our customers and suppliers, pioneering innovative LNG applications and demonstrating strong financial performance.

This year has seen an unprecedented and excellent performance from all QatarEnergy LNG assets, functions, and projects. We achieved strong reliability performance across all our assets. In addition, all the planned shutdowns have been completed safely and successfully. Laffan Refineries have also achieved excellent operational performance recording longest running time since 2017.

Khalid bin Khalifa Al Thani
QatarEnergy LNG CEO

”

Find out more about how our efficient and reliable operations support energy security and economic development on [page 59](#).

Barzan End Products

1.4 billion standard cubic feet/day of sales gas, mostly for domestic power generation



5,600 barrels/day of plant condensate for international export



1,900 tonnes/day of ethane for local industries' feedstock



2 of the world's largest condensate refineries



760 tonnes/day of LPG, propane for international export



24,200 barrels/day of untreated field condensate for the Ras Laffan Refinery



680 tonnes/day of butane



4,000 tonnes/day molten sulfur capacity



30,000th
ship loaded at Ras Laffan Port



His Highness Sheikh Tamim bin Hamad Al-Thani inaugurated the Barzan gas plant

His Highness Sheikh Tamim bin Hamad Al-Thani inaugurated the Barzan gas plant, in March 2022 which provides energy to meet local power and water desalination requirements, including for the FIFA World Cup. It also supplies hydrocarbon products to local refinery and petrochemical industries, as well as for export to international markets. During construction, the workforce peaked at 30,000, with an outstanding safety performance achieved.

This is one of the most important energy projects in the State of Qatar, which adds a high and qualitative value in the effort to meet our domestic natural gas needs, and in supporting Qatar's comprehensive development and economic growth.

His Excellency Mr. Saad Sherida Al-Kaabi
Minister of State for Energy Affairs

”

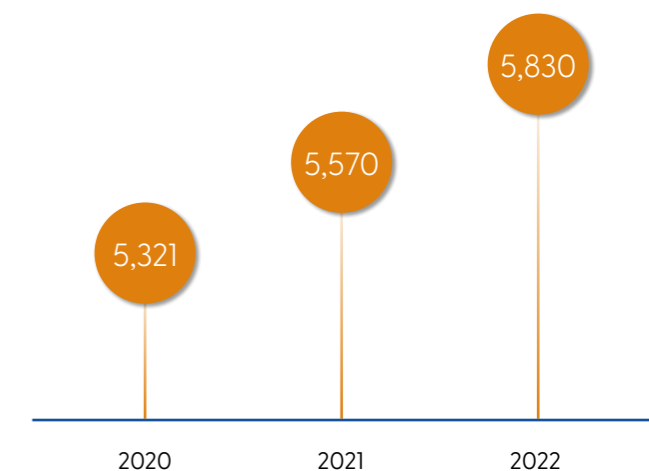
Also, during the year, we marked the safe and successful loading of the 30,000th ship from the QatarEnergy LNG-operated terminals in Ras Laffan Port. Our terminals are entrusted to handle approximately three million barrels of oil equivalent of both LNG and non-LNG products every single day.

2022 KPI Performance

We created 260 new jobs³ during a year in which communities suffered the impacts of a range of geopolitical and post-pandemic hardships. Total wages and benefits paid amounted to nearly QAR 2.7 billion. See all performance data on [page 64](#).

³213 on permanent contracts and 47 on temporary contracts.

Positions sustained



Preserving our Environment

LNG plays an important role in the world's demand for secure and cleaner energy and is likely to do so for many decades to come. We launched a comprehensive Implementation Roadmap for our Environmental Strategy, which details robust programs and research collaboration, backed by ambitious targets across all five material environmental issues.

Pillar	Preserving our Environment	
Focus Area	Climate	Resources
Material Topics	<ul style="list-style-type: none"> Greenhouse gas emissions Energy 	<ul style="list-style-type: none"> Waste management Water and effluents Biodiversity and ecosystems
QNV Alignment	Environmental Development	Environmental Development
UN SDG Contribution		

Highlights of the Year

LAUNCHED

Comprehensive Environmental Strategy Implementation Roadmap

12%

GHG intensity reduction since 2012

14%

flaring reduction between 2021 and 2022 and >70% since 2011.

Green Award

Maintained GREEN AWARD Certification for all 69 long-term chartered LNG vessels.

15,000

juvenile corals out-planted in Qatari waters from first of its kind national coral nursery.

Established

dedicated Environmental Research Collaboration Framework with national research centers



Environmental Strategic Direction

Following extensive engagement with our stakeholders and shareholders, we established a Long-Term Environmental Strategy in 2021 with a comprehensive Implementation Roadmap (the "Roadmap") released in 2022.

Designed to realise our 2030 vision of achieving "sustainable premier environmental performance", it spans the full QatarEnergy LNG value chain and comprises 75 specific implementation plans that address:

- climate change mitigation, including GHG reduction, with a focus on carbon dioxide (CO₂) injection, flare reduction, energy efficiency and methane emissions reduction;
- zero liquid discharge to sea, sulfur dioxide (SO₂) emissions reduction, shipping emissions reduction to meet emerging stringent GHG reduction targets, and achieving pace-setting waste recycling rates;
- biodiversity protection and enhancement, supporting national conservation plans;
- regulatory and market risks and value chain environmental and sustainability reporting; and
- innovation and research.

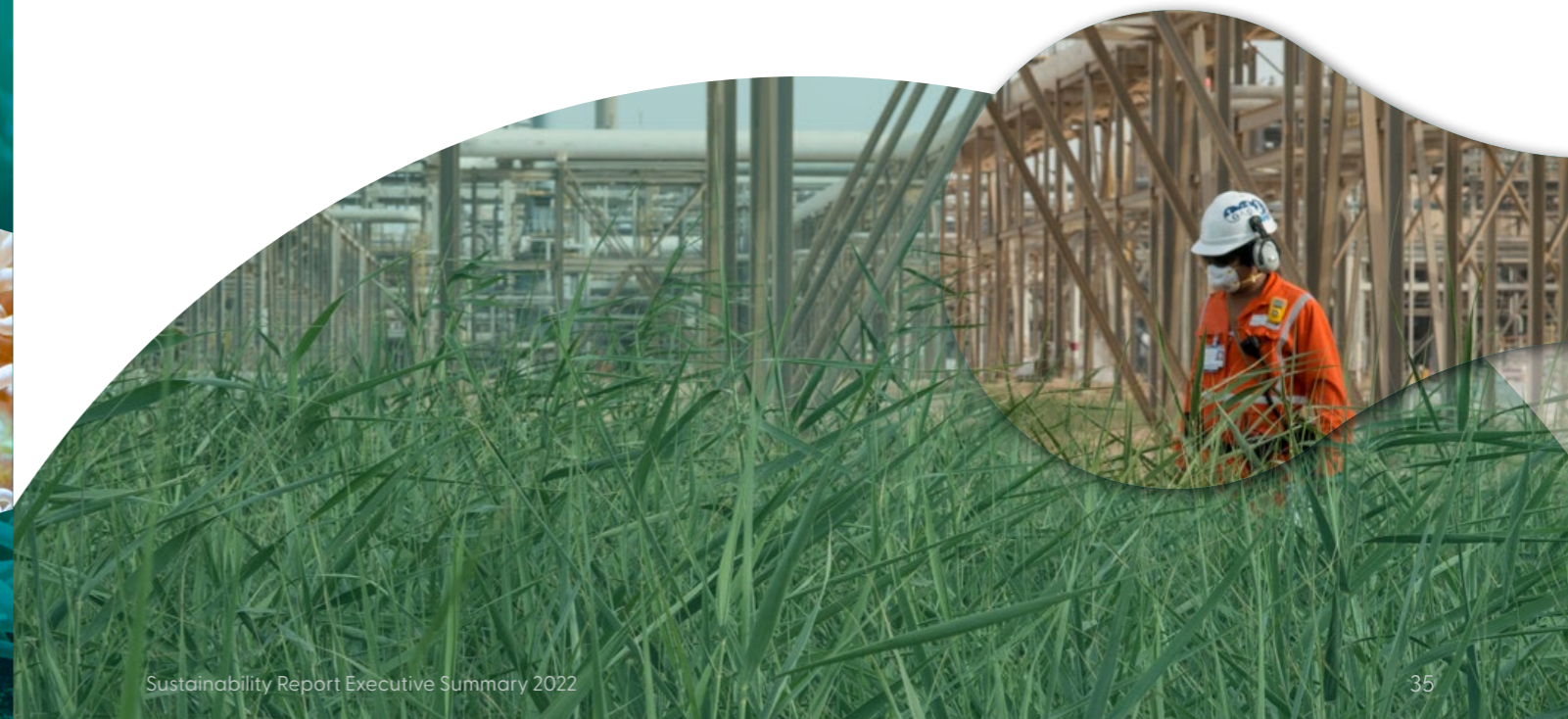
The roadmap is flexible to changing environmental and industry trends with it being governed by a dedicated Stewardship Framework, involving shareholders and internal stakeholders.

Refer to the Governance section for [the stewardship framework for QatarEnergy LNG's Environmental Strategy](#).

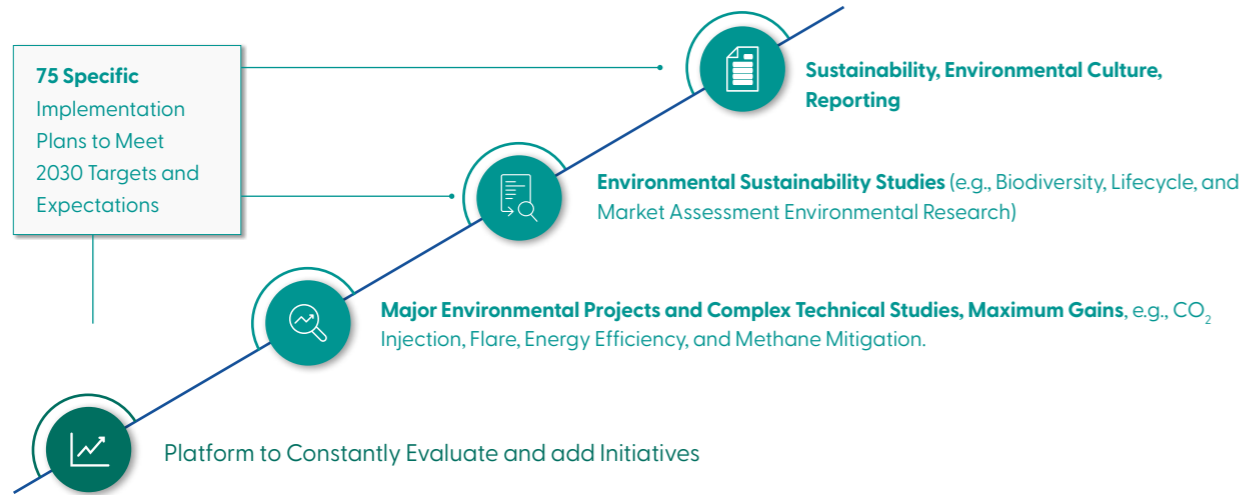
Environmental Management System and Compliance

With our Environmental Management System (EMS) recertified to ISO14001 in 2022, we continued to prepare for and mitigate long-term environmental risks and emerging trends, while enabling stakeholder engagement, research and innovation.

We maintain a dedicated Environmental Compliance Program to oversee an extensive and systematic approach to environmental compliance verifications across our operations and assets. In line with this program, we complete annual environmental compliance verifications for all our operating assets based on a full range of applicable environmental legal and compliance requirements.



QatarEnergy LNG Environmental Strategy Roadmap



- Continuous alignment with QatarEnergy Sustainability Strategy, National Environmental Strategy.
- Report to Energy Sector Sustainability Steering Committee.
- Leverage internal and external expertise; collaborate with shareholders and national institutions.
- LIVE platform to incorporate emerging environmental risks, trends and issues.

QatarEnergy LNG Long-Term Environmental Strategy

Pillars	Elements	Concepts
Sustain	<ul style="list-style-type: none"> • Sustain compliance • Continual improvement • Assess corporate risk 	Sustain environmental performance
Enhance Value Chain	<ul style="list-style-type: none"> • Enhance environmental culture • Improve branding • Focused CSR • Biodiversity enhancement • Assess and capitalise on environmental performance • Stakeholder engagement • Climate change mitigation • UNSDGs alignment 	Environmental awareness and culture (nature-based) projects
Optimisation	<ul style="list-style-type: none"> • Climate change mitigation • Resource/ energy efficiency • Circular economy (waste management) • Supply chain optimisation 	CO₂ injection; flare reduction; shipping GHG reduction
Innovation	<ul style="list-style-type: none"> • Research collaboration • Digitalisation • Enhanced energy efficiency • Transition in energy landscape 	CO₂ pricing offsetting and carbon neutral LNG

QatarEnergy LNG 2030 Environmental Expectations

> 20% LNG GHG Intensity Reduction represented by over 13 MTA of CO₂ saved

9.5 MTA CO₂ injection capacity

>80% flaring reduction

- Meet 0.30% flaring as sweet gas production.
- Equal to gas savings of 60,000 MMSCF per annum.

Near Zero Methane Emissions

- Support State of Qatar commitments to Oil and Gas Climate Initiative (OGCI) Aiming for Zero Methane Initiative.
- Achieve Oil and Gas Methane Partnership (OGMP) 2.0 Gold Standard.

> Meet Long-Term GHG Regulatory Targets for Shipping

- Specialised studies to assess compliance with International Maritime Organisation (IMO) decarbonisation targets.

> Advanced Environmental Controls for QatarEnergy LNG expansion facilities

- Pace-setting NO_x, sulfur recovery and wastewater recycling performance with partial utilisation of solar power for NFXP facilities.

> Reduce Sulfur Dioxide (SO₂) Emissions footprint

- Assess & mitigate impacts to communities.
- Develop LIVE modeling platform.

> Environmental Performance as Market Differential for Qatar LNG

- Enhanced GHG and methane MRV systems to meet emerging industry trends.
- Value-chain GHG (per LNG cargo, lifecycle emissions) reporting and statements to customers.
- Dedicated Carbon Neutral LNG cargo transactional framework.

> Target Zero Liquid Discharge to Sea

- >70%, overall wastewater reuse.
- Implement innovative reuse options for reject water streams.

> Sustained >70% waste recycling

- Significant reduction in waste that would otherwise have been landfilled.
- Enhance partnerships with local SMEs and contribute to Circular Economy and Green Supply in Qatar.

> Integrated Sustainability and Environmental Culture

- Dedicated environmental culture program.
- Proactive environmental advocacy and CSR (in-country and customer markets).
- Overarching Environment, Social and Governance (ESG) / Sustainability framework.

> Recognised as Key Contributor to National Biodiversity Plans

- Completion of major coral relocation projects and biodiversity studies.
- Develop dedicated QatarEnergy LNG Biodiversity Strategy.

> Innovation and Environmental Research

- Establish QatarEnergy LNG environmental research framework leveraging shareholder and national expertise.
- Develop QatarEnergy LNG-specific approach for long-term decarbonisation.

QatarEnergy LNG Environmental Achievements to Date

12%

GHG reduction represented by over 4 million tonnes per annum (MTA) of Carbon Dioxide (CO₂) saved

>50%

waste recycling

>60%

wastewater recycling and reuse through advanced wastewater treatment projects

>70%

flare reduction since 2011

Pacesetter 85%

reduction in Nitrogen Oxide (NO_x) emissions intensity

Biodiversity

Relocation of 12,000 live corals and deployment of 1,200 artificial coral reef structures to protect Qatar's vulnerable marine ecosystem

CO₂ injection

capacity of 2.2 MTA

First of its kind Coral Nursery with Aquatic Fisheries Research Center and Qatar University.



Barzan: An Environmental Blueprint for Gas Plants

Barzan and the Environment

Designed to meet 0.1% flaring intensity, which is 66% lower than the regulatory target for existing LNG and gas facilities.



Equipped with a high-tech membrane bioreactor to treat wastewater for irrigation.



State-of-the-art emission controls to meet 9-15 ppm nitrogen oxides level. This is 40% lower than regulatory standards.



Relocation and preservation of over 1,600 live corals from nearshore pipeline corridors to offshore protected areas and deployment of 200 artificial coral reefs.



Advanced technology guaranteed to meet a 99.6% recovery efficiency - higher than the 99% standard in the State of Qatar's regulations.



Climate Change

2030 Climate Targets

Reduce GHG emission intensity by 20% from 2013 baseline.

1. **Overall, 20% LNG GHG intensity Reduction by 2030** through combination of additional CO₂ injection, flare reduction and energy efficiency improvement.
2. **Increasing the current injection capacity to 9.5 MTPA by 2030.** Implementation of CO₂ injection for remaining existing LNG trains and NFXP facilities.
3. **Overall, >80% flaring reduction, achieving flaring performance of 0.3% of sweet gas production.**
4. **Achieving Near Zero Methane Emissions to support State of Qatar commitments to OGCI and OGMP 2.0 global methane reduction frameworks.**
5. **Reduce Sulfur Dioxide (SO₂) emissions footprint and assess & mitigate impacts to communities.**

GHG emissions

Our GHG Management program tracks, benchmarks and seeks to reduce GHG emissions. It is supported by a value chain GHG Accounting and Reporting process that aligns with the UN Intergovernmental Panel on Climate Change (IPCC) Guidelines.

For our shipping transport emissions, we engaged with vessel owners on fuel-saving programs, saving 15,600 million tonnes (Mt) of fuel in 2022, worth QAR 68 million.

Green Award Certification

for all 69 long-term chartered LNG transportation vessels



QAR 68 million

saved in shipping fuel efficiencies

Our CCS facility remains one of the largest CO₂ sequestration facilities in the Middle East. In 2022, it successfully captured 1.2 million tonnes of CO₂. We continue to expand our CO₂ injection capacity and are on track to sequester an additional four million tonnes per annum by 2030 for our existing LNG operations, while planning an additional 3.3 million tonnes per annum CO₂ injection for our LNG expansion projects. Some of this CO₂ is also expected to be exported outside of QatarEnergy LNG to be used towards enhanced oil recovery in the future.



2030 Target

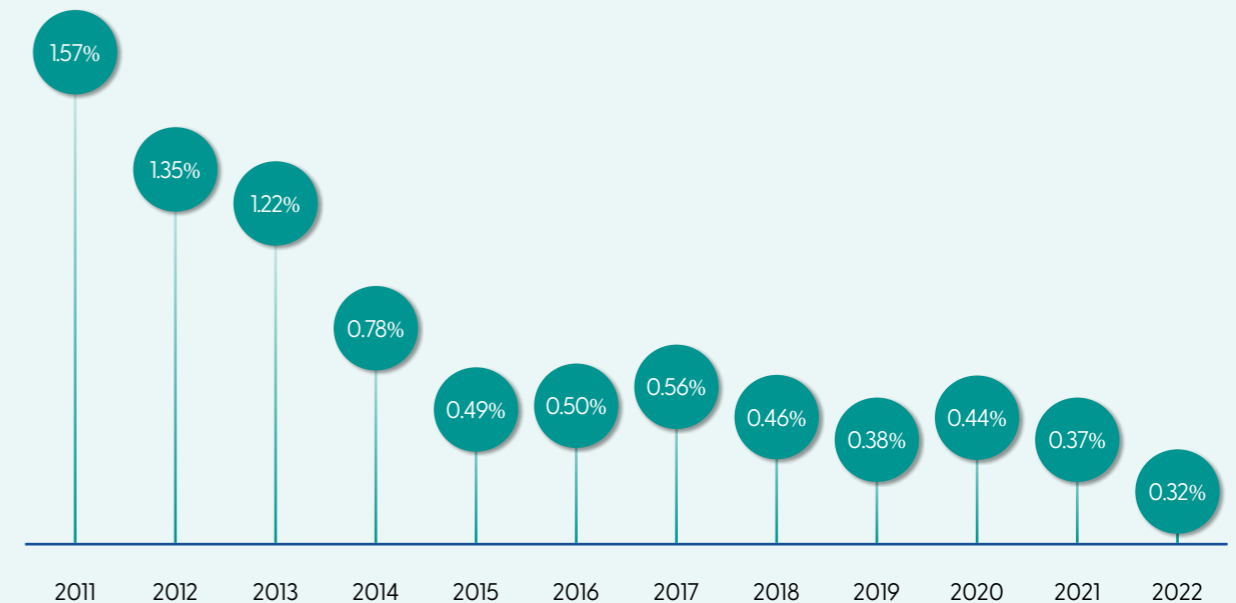
Achieving flaring performance of 0.3% of sweet gas production.

How We Reduced Flaring by >70% in 12 Years

A Plant flare is a critical process safety device. It allows for the safe combustion of gas during plant trips, upsets and planned turnarounds (shutdowns and start-ups). A certain volume of purge gas is also sent to the flare system on a continuous basis to keep the flare lines under positive pressure and the flare system ready and available for the above process events as an essential operational requirement.

Since 2011, we have reduced LNG and sales gas process flaring by more than 70%. In 2022 alone, we achieved a significant reduction in our flaring by approximately 14% from 2021. These consistent achievements are thanks to innovations deployed by our multi-disciplinary Flare Management Teams in delivering our Flare Management Program – a combination of operational source reduction, improved availability and reliability of plants and process equipment, and excellent shutdown flaring performance.

QatarEnergy LNG's Steady Flare Reduction from 2011 to 2022





The Role of LNG in the Energy Transition

As described on page 11, QatarEnergy LNG experts were prominent at the 28th World Gas Conference. Nayef Al-Shammari, Senior LNG Marketer shared a research paper on “The Role of LNG In the Energy Transition”. The paper takes a bird’s-eye view of forecasted growth in LNG demand by region and sector, focusing on the main Asian LNG importing countries where gas is displacing coal and penetrating sectors such as transportation.

In addition, Afzal Subedar, one of our Environmental Specialists, shared a paper on “QatarEnergy LNG Greenhouse Gas Accounting covering diverse, complex and integrated operations.” The paper provided details on QatarEnergy LNG’ comprehensive GHG accounting and reporting program, including its design and functionality covering operating facilities and chartered LNG ships (offshore to loading to delivery point). It also shed light on the GHG per LNG cargo methodology.

At-a-Glance Look at Factors Impacting Gas Demand

QatarEnergy LNG’s Nayef Al-Shammari highlights these positives and risks in his paper ‘The Role of LNG in The Energy Transition’.

Positives:

- Stricter decarbonisation agenda to accelerate the coal phase-out
- Development of gas and LNG infrastructure in emerging markets
- Adoption of carbon tax frameworks in big economies
- Development of Carbon Capture and Sequestration technologies
- Rapid development of niche sectors such as transportation

Risks:

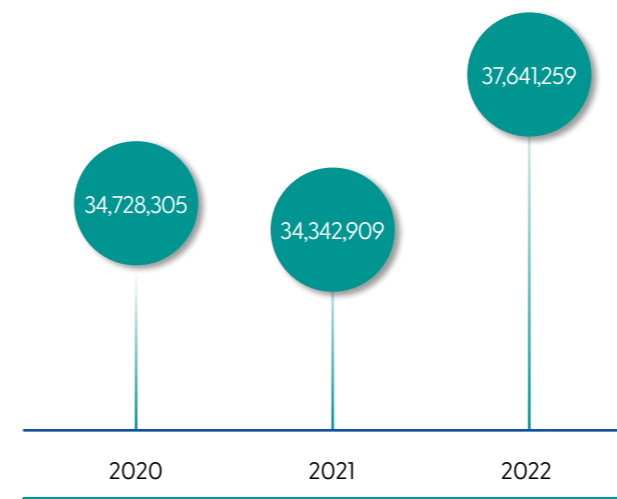
- Long-lasting LNG price volatility impacting its competitiveness against alternative fossil and non-fossil fuels
- Decline in costs and improvement in technology that allows for wider penetration of renewables
- Cost reduction in green hydrogen production
- Innovative energy efficiency technologies across all sectors and markets

2022 KPI Performance

Due to the successful start-up of our Barzan Gas Plant, QatarEnergy LNG GHG emissions were approximately 10% higher than in 2021, however, our GHG emissions intensity remained stable at 0.30. Road transportation emissions increased slightly due to the addition of more employee buses and routes, as well as the Barzan start-up.

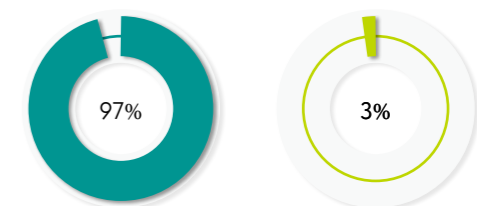
We maintained our range of advanced emission controls, as well as extensive monitoring and reporting on Nitrogen Oxides (NO_x), Sulfur Dioxide, SO₂ and Volatile Organic Compounds (VOCs). In 2022, SO₂ increased by 18% primarily due to operational events related to LNG mega-train shutdowns and SRU availability.

Total GHG emissions (tonnes CO₂ equivalent)

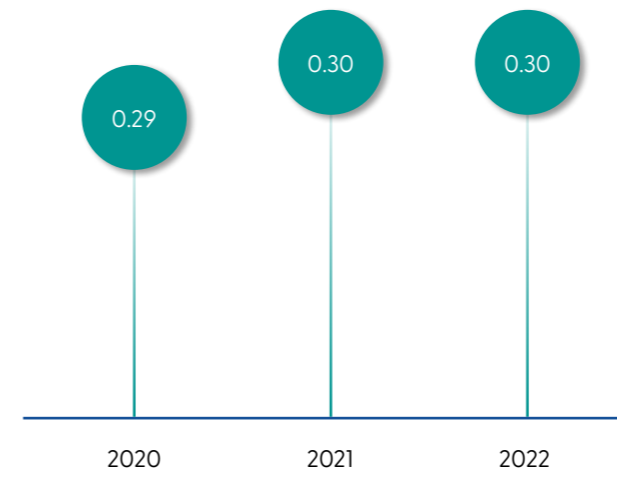


GHG emissions for 2022

- Direct (Scope 1) GHG Emissions (All QatarEnergy LNG facilities) (Mt CO₂ equivalent)
- Indirect (Scope 2) GHG Emissions (Mt CO₂ equivalent)

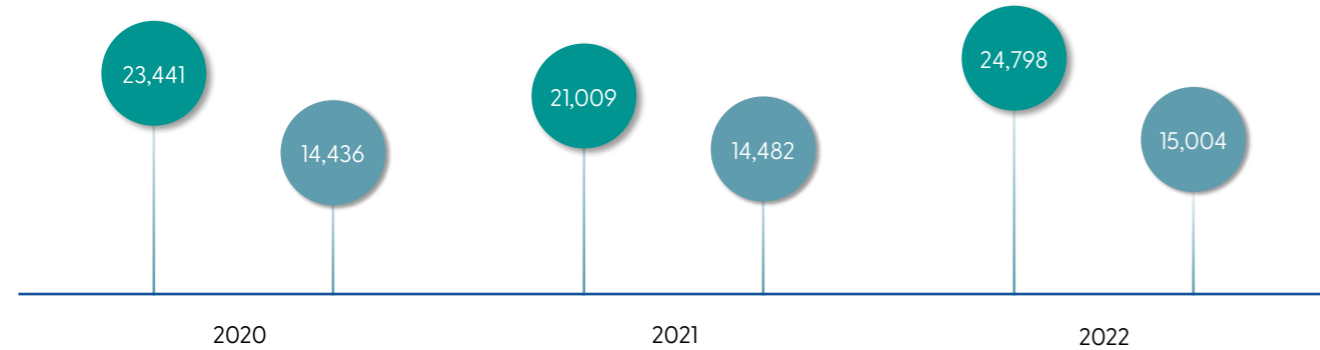


GHG emission intensity (tonnes CO₂/tonne of hydrocarbon production)



Other air emissions

● SO_x emissions (tonne) ● NO_x emissions (tonne)



See all performance data on [page 64](#).

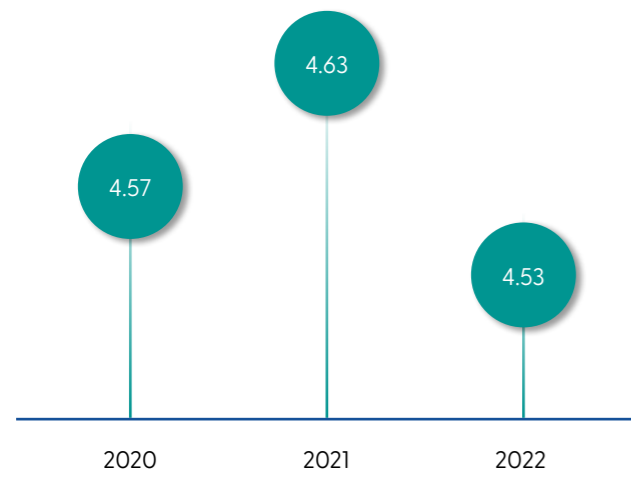
Energy

Our main source of energy is fuel gas to produce steam and power our operations. It accounts for 99.2% of our total energy consumption. The remaining 0.8% comes from grid electricity to power buildings and certain plant operations. Through our annual Go Green environmental awareness program, we continued to hold workshops and events to engage employees, students and the wider community on the important role of our lifestyle choices in mitigating our personal carbon and energy footprint.

2022 KPI Performance

As with our GHG performance, our energy consumption increased in 2022 due to the impact of adding Barzan to our scope of data coverage. This is reflected primarily in indirect energy consumption rising as the new plant came online. Overall, total energy use increased by 5.4%, however, energy intensity decreased.

Energy intensity (GJ/Tonne of hydrocarbons)



See all performance data on [page 64](#).



Resources

Waste Management

We take seriously our corporate responsibility to manage waste in line with QNV 2030 and best industry practices.

2030 Waste Targets



4. **Sustained >70% waste recycling rates.** Enhance partnerships with local industry and contribute to green supply and circular economy in Qatar.

QatarEnergy LNG generates a variety of hazardous and non-hazardous waste streams from its operations, which are managed through the QatarEnergy LNG Waste Management System. Our current focus is to enhance collaboration with local small and medium sized enterprises (SMEs), as well as major industries to promote the development of sustainable in-country waste recycling infrastructure.



Closing the Loop on Waste and Resources

As part of our Environmental strategy, one of our goals is to achieve sustained recycling rates greater than 70% by 2030. Our circular economy approach involves developing recycling infrastructure; establishing a waste contract strategy (with a focus on SMEs); collaborating and raising awareness; and monitoring progress.

Since 2018, we have prioritised a number of critical streams based on their volume, hazardous nature and disposal at landfill, for research of best practicable environmental solutions and potential in creating in-country economic value. We are proud to have found successful solutions for molecular sieves, contaminated sulfur, various hydrocarbon waste streams and many other streams which are now processed locally, in circular economy systems enabled by QatarEnergy LNG and our partners. Highlights have included:

- Finding a molecular sieves solution through cross-industry cooperation with a local cement factory. The factory now utilises all QatarEnergy LNG molecular sieves as source material for clinker, enabled by a local agent. This has become a widely established solution for the wider oil and gas industry in Qatar.
- Cost-neutral hydrocarbon recycling in cooperation with a local SME. Our partnership led to further research and successful trials with a range of hydrocarbon waste materials generated from sludge separation, tank decanting and other activities.
- Making sulfuric acid from contaminated sulfur, with a long-term contract that eliminates landfilling and saves approximately 95% disposal costs.

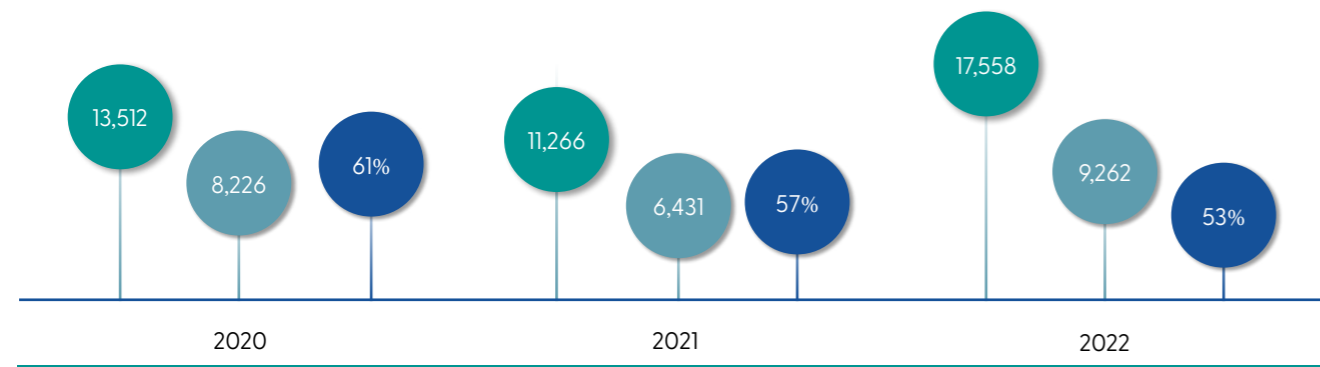
We will continue the development of sustainable circular waste management solutions while maintaining our integrated operational performance to bring financial and environmental value to our Company. We encourage QatarEnergy LNG employees to share their ideas, take part in waste segregation and recycling campaigns, and promote a culture that prioritises waste as a valuable resource that requires careful management and stewardship.

2022 KPI Performance

Total waste generation increased by 56% in 2022. This was primarily due to Barzan Gas Plant start-up, as well as more hazardous waste being generated by two major shutdowns, increased hydrocarbon sludge captured from tank farms, and pit cleaning activities. We have, however, increased the total quantity of waste recycled in 2022 by 44% from 2021, thanks to a new hydrocarbon recycling partnership with a local SME enterprise, and continued close collaboration with a local cement plant for molecular sieve and catalyst waste.

Waste management

● Waste generation (tonne) ● Waste recycled (tonne) ● Waste recycling (%)



See all performance data on [page 64](#).



Water and effluents

We consume water for cooling and to generate steam. Cooling water is supplied from the sea and used for heat exchange to cool process streams, while desalinated water is externally sourced and obtained from our in-house desalination plants and as recycled water from our advanced wastewater reuse and recycling facilities and is used to produce steam.

2030 Water Targets



5. Drive to zero wastewater discharge to sea. Maximise wastewater reuse and recycling and implement innovative reuse options for reject water streams.

Our Water and Wastewater Reduction and Reuse Program is in line with the State of Qatar's national objectives. It supports a number of innovations, including membrane bioreactors and reverse osmosis at our advanced wastewater facilities, including the Zero Liquid Discharge facility at our Laffan Refineries, and our Wastewater Reduction and Reuse and Treated Industrial Process Water facilities at our LNG plants. These facilities currently achieve a recycling and reuse rate of up to 65% of wastewater feed to these plants. To optimise our desalinated water use, we continue to collaborate with stakeholders and research organisations within Qatar to explore multiple wastewater management and conservation efforts.

In 2022, we continued to explore a number of water recycling innovations in our shipping fleet, including installing Ballast Water Treatment Systems on 18 vessels for compliance with the IMO Convention (bringing our total to 41 vessels upgraded since the Convention came into force, with 28 to follow in 2023 and 2024).



Sharing Best Practices in Groundwater Management

Alongside other Ras Laffan-based energy companies, we hosted a Groundwater Management Workshop to encourage knowledge-sharing around Qatar's coastal aquifers related to Ras Laffan Industrial City (RLIC) and Northern Qatar. We showcased early results and real-time examples from our Soil and Groundwater Management Roadmap, which prioritises collaborative environmental research with ExxonMobil Research Qatar (EMRQ) to undertake comprehensive soil and groundwater mapping of QatarEnergy LNG facilities and formulate a long-term plan to address existing and emerging soil and groundwater related issues and risks.

QatarEnergy LNG was proud to host this environmental event to share insights, best practice, and experience on groundwater management from its joint collaborative research.

Khalifa Ahmed Al-Sulaiti

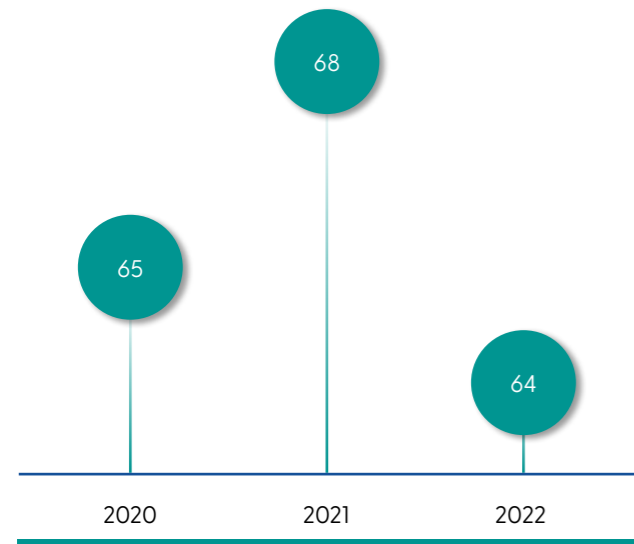
QatarEnergy LNG Chief Health, Safety, Environment and Quality Officer



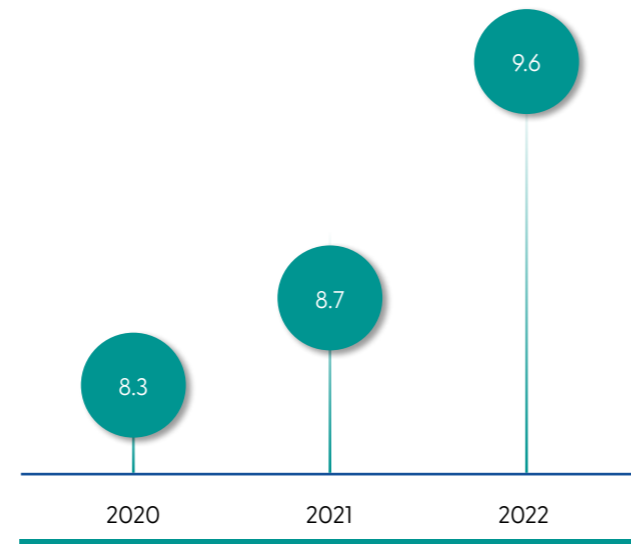
2022 KPI Performance

We saw slightly higher total consumption of desalinated water, due primarily to the addition of the Barzan Gas Plant to our operational portfolio in 2022.

Wastewater recycled or reused (%)



Desalinated water consumption (Mm³)



See all performance data on [page 64](#).

Biodiversity and Ecosystems

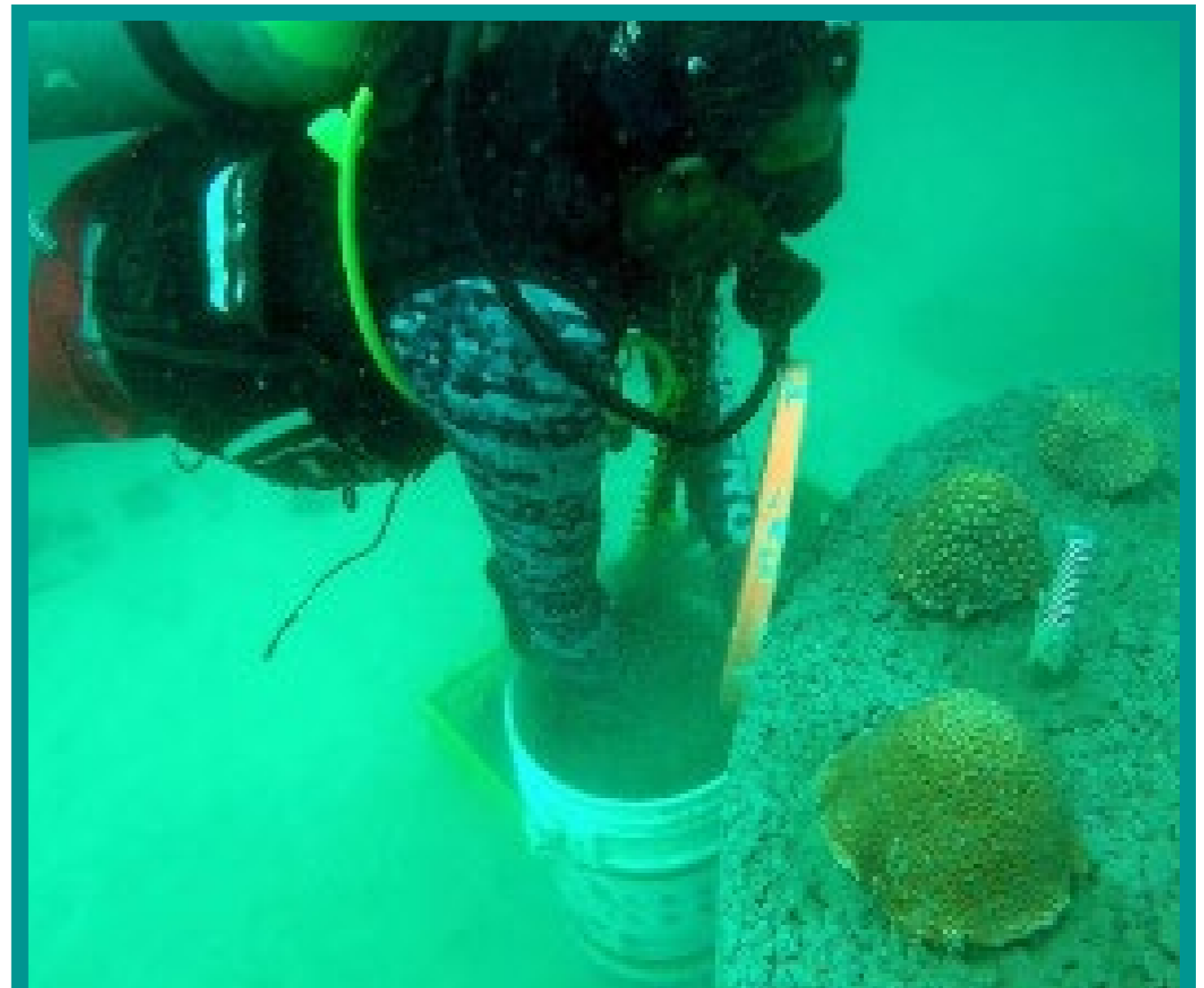
QatarEnergy LNG has proudly led the implementation of a wide range of Strategy, conservation programs that reduce our impact on natural resources and promote environmental protection. A key focus for the last 15 years has been coral protection, since corals are both a vital habitat and a mitigator of climate change. We continued relocating live corals from nearshore pipelines to offshore protected areas, while over the years, successfully deploying over 1,200 hybrid artificial reefs that were locally designed, tested and fabricated using an environmentally friendly biogenic concrete mix to enrich Qatar's marine ecosystem.

In collaboration with Ministry of Environment and Climate Change (MECC) and local stakeholders, we continued our biodiversity journey during 2022, initiating mangrove protection plans, and carrying out sustainable fisheries projects that support Qatar's National Biodiversity Strategy and Action Plan. Through the Ras Laffan Industrial City Community Outreach Program, we also conducted wider environmental protection and biodiversity conservation programs, including beach clean-up campaigns

2030 Biodiversity Targets



- 6. Recognised contribution to National Biodiversity Plans.** Completion of major projects on long-term coral conservation strategies, rehabilitation of deteriorated marine habitats and sensitive marine habitat mapping to support State of Qatar biodiversity strategy.



Protecting Qatar's Coral Reefs

In collaboration with MECC and Qatar University, we led a landmark Coral Management Program that included the establishment of a first-of-its-kind land-based Coral Nursery in the region as well as a coral relocation campaign. It also includes a long-term, comprehensive monitoring plan for relocated fragmented corals, with all relocation zones to be handed over to MECC as protected natural reserves.

The latest phase of the program established 200 hybrid artificial reefs that were locally designed, tested and fabricated using an environmentally friendly biogenic concrete mix. This was followed by the meticulous relocation of 4,500 live corals to a recipient site. Meanwhile, the land-based Coral Nursery in Ras Matbakh has to date created 15,000 juvenile corals from the original 1,000 "adult" corals. These have since been out planted at five different marine sites. While in the nursery, the corals were closely studied under different light wavelengths, size classes, species and food regimen. The experiments carried out in the lab have helped in developing a strong scientific understanding of coral propagation as well as viable alternative methods for coral conservation.

The nursery has the potential to become a National Coral Bank, contributing to future marine biodiversity and coral protection in Qatar and beyond. It is already paving the way for sustainable marine ecosystem preservation methods.

Finally, over 22,000 juvenile hamour fish were introduced to the coral relocation site with support from the Aquatic Fisheries Research Centre. The objective was to further enrich sites by creating a productive marine ecosystem for the benefit of local fish and marine species, thereby supporting the enhancement of natural resources in Qatar.

Responsible Governance

We always do what we say, we promote honest and transparent communication and conduct our business ethically. In doing so, we uphold our reputation as a trusted corporate citizen. Within our Sustainability Strategy, responsible governance includes a number of material issues, from ethics and risk, to supply chain and innovation.

Pillar	Responsible Governance	
Focus Area	Governance	Innovation
Material Topics	<ul style="list-style-type: none"> Governance (ensure protection), ethics and transparency Risk, Business Continuity and Crisis Management Sustainable procurement 	<ul style="list-style-type: none"> Customer satisfaction Financial performance Efficient and reliable operations Innovation and clean technology
QNV Alignment	Economic Development	Economic Development
UN SDG Contribution		

Highlights of the Year

26
CSR stakeholder engagements

ISO 28000
security recertification

100%
completion of emergency response KPIs

95%
customer satisfaction

Zero
late or off-spec deliveries, 4 years running

Highest
LNG availability in 3 years



QatarEnergy LNG

Governance

We strive to conduct 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.

Code of Ethical Conduct

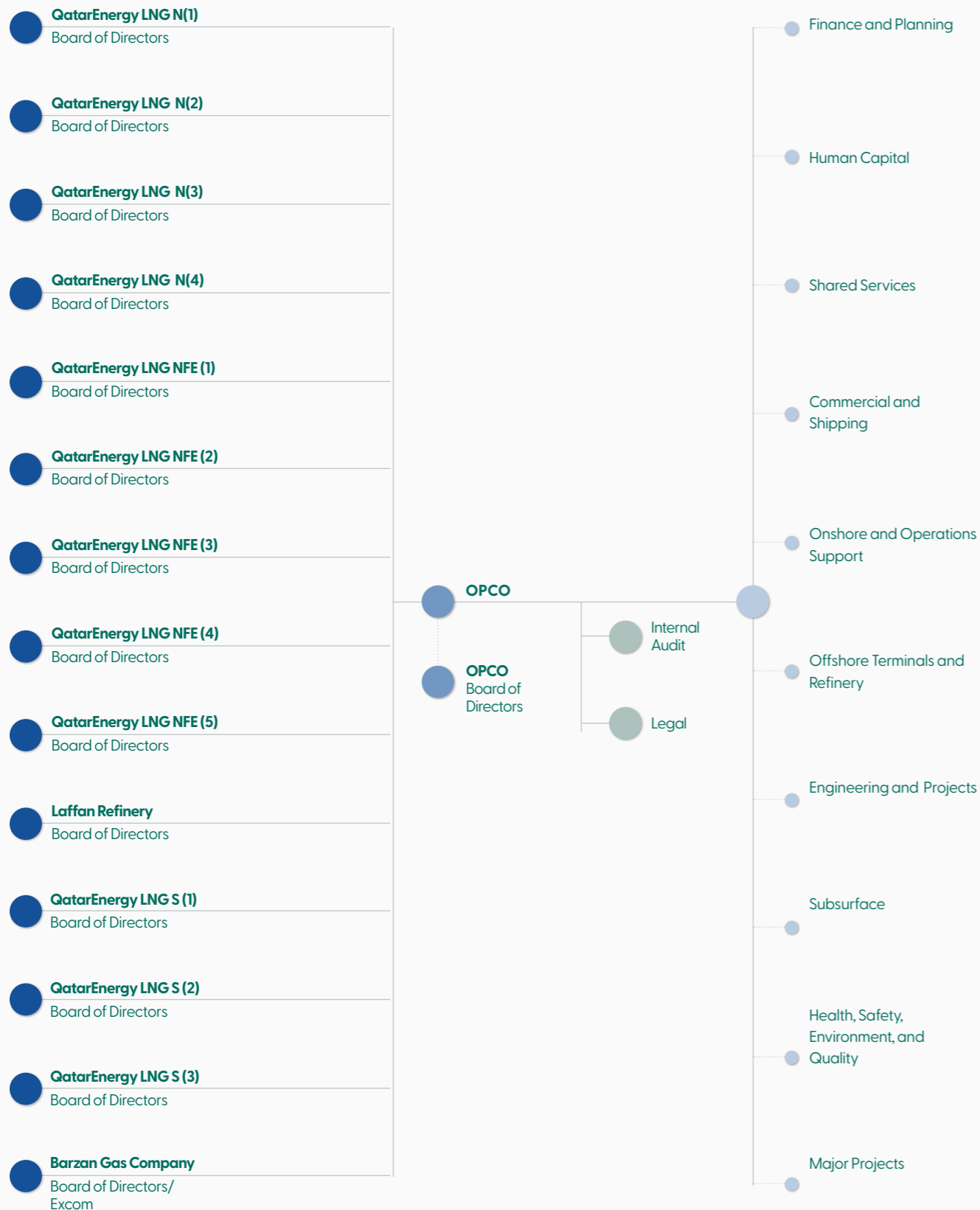
In 2022, the Board of Directors comprised 14 members, of whom three represented QatarEnergy and 11 our joint venture partners. Each QatarEnergy LNG venture has a unique ownership structure. The roles and responsibilities of the Board members are set out in QatarEnergy LNG Articles of Association and Joint Venture Agreement, which also further delegates authority to the Chief Officers of the 10 groups within QatarEnergy LNG and the relevant committees.

The Board oversees financial and technical affairs, while adopting strategies and policies to support executives in strategic decision making. A Board-level Audit Committee oversees the integrity of internal controls, corporate governance, accounting policies, financial statements and reporting, and risk management.

QatarEnergy LNG Shareholders



The Structure of QatarEnergy LNG Governing Bodies

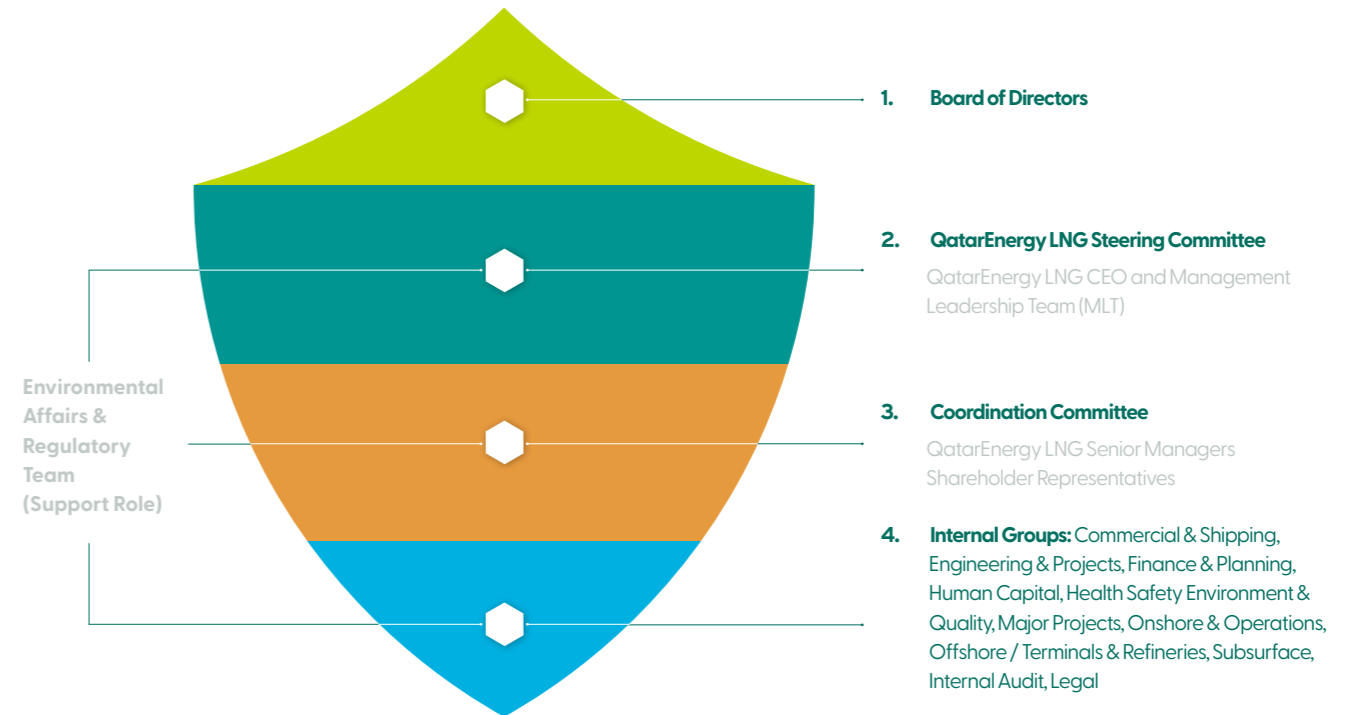


Find out more about our [Corporate Governance](#)

Sustainability Governance

With strategic oversight from the QatarEnergy LNG Board Key Performance Indicators (KPIs) are monitored by the Safety, Health and Environment Committee, and the Audit Committee. Delivery is via a number of programs, strategies and management systems spanning important material topics.

Environmental Strategy Stewardship Framework



Sustainability Governance

- | | |
|--|--|
| 1. Direction Statement | 5. Social Investment Policy and Procedure |
| 2. Code of Business Ethics Policy | 6. SHE Committee Charter |
| 3. Internal Audit Charter | 7. Employee Relations Policy |
| 4. Enterprise Risk Management Process | 8. Third Party Due Diligence Policy |

Code of Ethical Conduct

Our Code of Business Ethics ('the Code') helps to foster a culture of responsibility and fairness across the company. All employees are expected to abide by the Code to maintain and enhance our reputation for honesty, integrity, and reliability. An Ethics and Conflict of Interest Committee is responsible for enforcing the Code, resolving issues arising from violations, and communicating ethical conduct. All employees undergo the mandatory induction process, which covers the Code, and all must sign an annual statement of compliance. In addition to the Code, we have in place a series of regulatory documents, policies, charters, and procedures that promote international standards, industry best practices and Qatari law. These are shown opposite.



Promoting a Speak-Up Culture

We promote open communication amongst all employees to express any grievances or concerns relating to actual or potential cases of fraud, malpractice, or ethical misconduct. We also have in place a whistleblowing mechanism that allows anyone (including external stakeholders) to report concerns. There were no official concerns or grievances recorded during 2022.

Corruption, fraud, and unethical behavior are expressly forbidden. Where potential conflicts of interest arise, we deploy a Conflict-of-Interest Declaration, which is investigated objectively.

Enterprise Risk Management

QatarEnergy LNG Enterprise Risk Management (ERM) division implements a robust risk management system for all our operations, based on international standards. The framework is designed to identify, report, and manage risks to provide effective risk prevention and mitigation measures across the company's value chain. QatarEnergy LNG' management approach is to ensure risk management is applicable enterprise-wide with risks being measured against key criteria, such as financial, reputational and SHE impacts.

Risks are categorised in a multitude of ways, i.e., organisation unit, risk type, impact type, consequence, and probability and are measured against corporate objectives driven by the QatarEnergy LNG 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 ERM procedures are aligned with best practices and ISO 31000 Risk Management standard. Verification is performed through a series of internal and external audits by stakeholders. The ERM division is regularly audited on a number of levels - internally by QatarEnergy LNG Internal Audit, and externally by its shareholders including QatarEnergy (as the parent company).

Mitigation plans and assessments for identified risks are formally reviewed quarterly (as a minimum) across the organisation. The quarterly risk reviews involve regular meetings with almost all QatarEnergy LNG divisions, representing our internal stakeholders. Another set of quarterly 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 QatarEnergy LNG Management Leadership Team. The management leadership team MLT and our stakeholders also undertake a SWOT analysis annually which is an important opportunity to identify and discuss evolving risks, for example those related to cyber security, ESG, global economics and QatarEnergy LNG operations.

Each of these risks is considered and managed by the relevant department. In 2022, the ERM division played a role in facilitating the mitigation and management of risks associated with the FIFA world cup held in Qatar and providing the MLT and shareholders visibility and assurance that the most critical risks were being robustly addressed.



QatarEnergy LNG Management Leadership Team Crisis Management Training

In February 2022 QatarEnergy LNG Management Leadership Team (MLT) completed the Incident Command System Executive Program ICS-402, facilitated by QatarEnergy LNG Crisis Management Team and specialists from the University of Doha Science & Technology (UDST), Qatar.

The program is designed to provide an orientation of the Incident Command System, an understanding of how major incidents are managed within QatarEnergy LNG, and the delegate's individual role in supporting such incidents.

ICS-402 is a combination of dynamic presentations, observation of practical demonstrations, and one-to-one discussions with the Crisis Management Team.

Participants were introduced to the various response Tiers and associated activation protocols utilised within QatarEnergy LNG. This included activation of the Tier-1 Incident Command Team, Tier-2 Incident Management Team response coordination to provide tactical support to the incident, and Tier-3 Crisis Management Team activation to address issues arising from the incident at a strategic level, with a focus on strategic oversight, communication, resource support and business continuity.

All delegates received Incident Command System Executive Program ICS-402 certification at completion of the course.

Business Continuity Management

Maintaining business continuity in a changing world is fundamental to our Vision and Mission. As part of our ERM, all Business Continuity Management (BCM) procedures, including our Change Management Policy for IT services, are aligned with international best practices, including ISO 22301 BCM standards. The BCM team reports into ERM and coordinates the activation of BCM across our ventures, while also coordinating a network of Business Continuity Coordinators.

In 2022, we developed a Pandemic and Resilience Plan based on key lessons learnt from the pandemic.

Throughout the FIFA world cup, we have taken a risk-based approach, enabling our Incident Management Team to focus on the key areas of exposure to mitigate potentially significant

We are now working to improve resilience through enhancing the business continuity management culture across the organisation. This will be enabled through:

- Raising competencies to global standards: certifying the central BCM team
- Enhancing the skills of our business continuity coordinators through industry standard training
- Improved governance and monitoring through specific KPI's
- Promoting collaboration, integration and better communication between the disparate disciplines involved in crisis and business continuity management

[Find out more about ERM processes](#)

Emergency Response & Crisis Management

Emergency preparedness and response is firmly part of our culture. A highly trained response team, with state-of-the-art fire vehicles are always on standby, and all fire stations services are accredited to Fire Service Excellence standards. In 2022, we were proud to be reaccredited by the US-based Centre for Public Safety Excellence (CPSE) after successfully meeting rigorous criteria for continuous quality improvement in fire and rescue.



The 2022 State of Emergency Readiness was above 80%, with a 99% deployment capability of 291 seconds to activate tier 2 response systems. The average fire alarm processing and turnout time was three minutes, far exceeding our target of five minutes, with 97.6% of responses within five minutes (well above the National Fire Protection Association benchmark of 90%). Overall, we achieved 100% of our emergency response KPIs, while delivering a total of 299 staff trainings under the umbrella of crisis management. These included training 90 employees in an accredited Incident Command and Management (ICS) System and holding the first ICS 402 executive orientation for the Management Leadership Team. Overall, 256 tier 1 emergency scenario exercises took place (primarily focused on fire and gas), and 48 tier 2 (focused on onshore and offshore strategic support).

Course	Number
ICS 200 training courses	5
ICS 300 training courses	7
ICS 402 training courses for MLT	4
Offshore OPITP training courses	8

Our Crisis Management Team implemented a new awareness program to improve response to Major Accident Hazards. To further mitigate against offshore and onshore spill risk, we worked closely with QatarEnergy peers to enhance management programs. This extensive work will continue until 2024. We saw improvements across all LNG supply security KPIs, including reliability and availability of supply.



Excellence in Fire Preparedness

At our Ras Laffan Terminal, we operate several Hydrocarbons tank farms on behalf of producers. We uphold the highest fire safety standards at these farms, with each equipped with specialist firefighting systems. In 2022, we worked with QatarEnergy experts to assess these systems in the face of rare, but catastrophic, full surface fires on floating roof tanks.

The assessment found opportunities for improvement. We have now launched a more detailed study to identify the exact improvements requirement with a view to implementing enhancements imminently. This case shows the importance we place on continuous monitoring and improvement, raising the bar of excellence every single day to build business resilience to risk.

In today's increasingly complex fire and emergency services environment, fire services are confronted with issues that go well beyond traditional emergency response. This project is an exceptionally good example of collaboration where QatarEnergy Fire & Rescue team, QatarEnergy LNG Fire Protection and the Engineering team has come together and studied the issue and recommended a cost-effective solution.

Hassan Jassim Abu Khamis

FIFireE, CFO, MIAFC. Emergency Response & Security Manager



Security Management

Our Security Management System was recertified to ISO 28000 standard in 2022, and we completed a number of infrastructure upgrades, as well as launching an online security application scheme for vehicles requiring entry to plant facilities, replacing the manual application process. A dedicated task force was set up to oversee heightened security measures prior to and during the FIFA World Cup. New security contractor guard force of over 400 personnel were successfully mobilised in Ras Laffan and Al Khor Community. A total of 3,058 security personnel participated in 1,286 security training sessions, including more than 400 new security guards.

400
new security
guards
on-boarded

With regard to information security, we continued to take a proactive approach to prepare for and mitigate against threats. Our Information Security Awareness Training and Education Policy aims to minimise the number of information security incidents and takes many forms including eLearning, group activities, communications, presentations, and exercises. The Policy is supported by our IT Demand Management Procedure, and Change Management Policy – see below.

QatarEnergy LNG is pleased to report the successful implementation of the Asset Information Management System (AIMS) P&P Module. This milestone achievement marks a significant step towards streamlined document management and sustainability practices. Through the AIMS P&P Module, we now have a robust system in place to effectively manage all QatarEnergy LNG controlled Documents: Policies and Procedures (P&Ps). This includes the automation of ten document management workflows, resulting in improved efficiency and reduced environmental impact.

Sustainable procurement

We manage procurement responsibly through a clear business planning system aligned with the Corporate Vision and five-year Strategic Plan. It is rooted in internal and external analysis of strengths, weaknesses, opportunities, and threats and includes clear objectives, KPIs and calendars for controls and governance.

Fair Selection and Evaluation

We strive to ensure fairness in supplier selection through an Open Tender Process with consistent evaluation criteria for safety, financial and technical performance. We only work with compliant suppliers who meet these criteria and adhere to regulations. Sustainability is prioritised through qualified supplier selection, continuous performance monitoring, and corrective actions. We evaluate supplier performance regularly and prioritise responsible sourcing. Our eProcurement system enhances tendering and contract management processes for improved performance and quality.

Local Purchasing

Our Procurement Strategy balances the quality of goods being procured, vendor efficiency, customer satisfaction, cost optimisation and purchasing timeline. We are committed to positively contributing to Qatar's In-Country Value program to maximise local economic impact, and by encouraging local and smaller enterprises to participate in our Open Tenders, we support the Qatari Tawteen localisation strategy. So far, we have been awarded several Tawteen Investment Opportunities.

Find out more about our [Supplier Selection processes](#).



Innovation

Striving for premier performance is one of the QatarEnergy LNG Values, and includes a drive to innovate, optimise business and financial performance, and ensure continuous improvement.

Customer Satisfaction

Ongoing customer loyalty is testament to our track record of delivering exceptional quality products and services over nearly three decades. As discussed below, we continued to monitor specific elements of product delivery, achieving zero late or off-spec deliveries for four years' running.

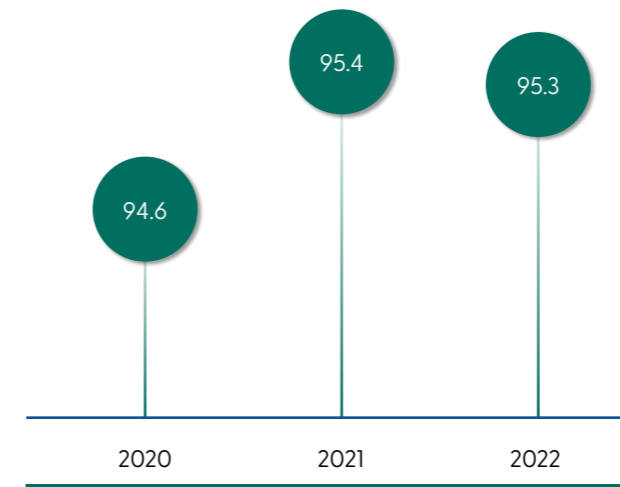
Efficient and reliable operations

The QatarEnergy LNG Management system defines principles, elements and requirements for optimal performance. In 2022, conducted Business Process Assurance on 36 processes with highly positive stakeholder feedback. Our new Holistic Integrated Planning function coordinated strategies and execution plans to support corporate readiness for expansion and sustainability projects. This has been an important milestone in our mission for long-term safe, reliable, and environmentally sound operations, consistent with QatarEnergy LNG objectives.

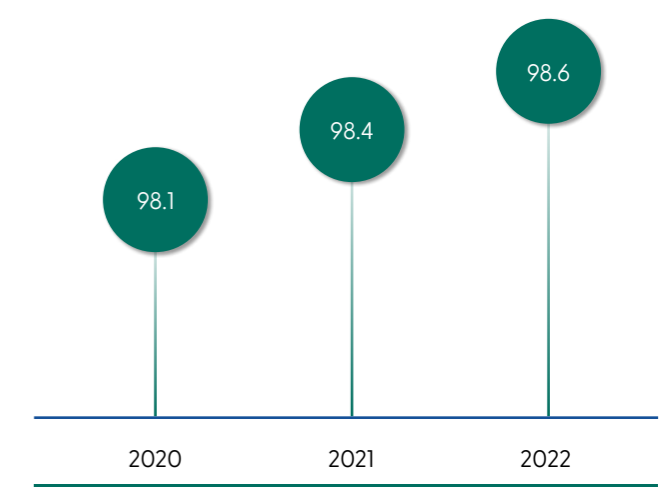
2022 KPI Performance

We further increased LNG reliability, to 98.6%. LNG availability fell by 0.1%. Zero late or off-spec deliveries have been achieved for four years' running.

LNG availability (%)



LNG reliability (%)



See all performance data on [page 64](#).

ZERO

late or off-spec deliveries, 4 years' running



Sponsoring the 18th Plant Design Competition

We once again sponsored and presented the Best Overall Prizes at the 18th Annual Plant Design Competition, organised by Qatar University's Department of Chemical Engineering. With a rich legacy dating back to 2004, this annual contest aims to provide students with opportunities to gain world-class engineering experience. With 12 female and three male teams, the competition was of an exceptionally high standard.

The first-place winning team created a project titled "Designing of Methanol Plant – Methanol Production Pioneers Company (MPPC)". The team included Lujain Aljohi, Sali Hamze, Nora Mohamed and Sara Raeesi and supervised by Dr. Donghyun Kim. The project involved the concept, design and construction of a methanol production company. The students also drew up detailed plans for operating the company.

The second-place winners presented the concept and design of an ethylene plant that follows Qatar regulations, based on chemical engineering principles and expertise that was gained through years of study. The team included Naba Ali, Sara Al-Kuwari and Samah Abdulla, supervised by Prof. Fadwa Eljack.

The third-place winning project focused on the design of a GTL (gas-to-liquids) process plant, in which natural gas was to be converted to produce approximately 140,000 barrels per day of highly demanded liquid hydrocarbon fuels, such as gasoline and diesel. The final GTL plant design consists of three main stages: an initial reforming reaction, followed by a Fischer-Tropsch reaction step, and the final hydrocracking and separation stage. The team are Anas Ahmed, Mhd Kher Al Alami and Ali Ibrahim, supervised by Dr. Mohammed AIMarri.

We are grateful to QatarEnergy LNG and its leadership for the continuous support offered over the last 18 years. And it's the engagement of industry in our senior design projects that provides the students opportunities to communicate with professionals in their field, while they gain insights into the technical and operational challenges.

Professor Majeda Khraisheh

Head of the Department of Chemical Engineering at Qatar University



Innovation and Partnerships

Innovation and collaboration with our industry peers and the research and development community is of great importance to QatarEnergy LNG. For example, we shape industry standards around process safety via our membership of the Mary Kay O'Connor Process Safety Center at TAMU Qatar. Alongside our peers, we leveraged the Center's benchmarking and research in 2022, while exchanging insights to advance technologies.



Cleaner Energy to China

In 2022, we delivered LNG cargo aboard a Q-Flex vessel to China's Beihai LNG Terminal, the first ever call by a QatarEnergy LNG-chartered vessel at this terminal. The Q-Flex vessel, Al Sahla, is the largest LNG carrier to call at the terminal since the start of its operations in 2016.

Since the first LNG delivery in September 2009 to date, Qatar has supplied China with more than 85 million tonne of LNG. China is a key and strategic energy partner for the State of Qatar throughout the entire energy value chain. It is also a main driver of the growth in the global LNG market as the government adopts increasingly progressive environmental policies. The Jiangsu-Binhai terminal is the 9th terminal QatarEnergy LNG has commissioned in China alone. This remarkable feat is testament to the Company's ability to support its customers, not only with cleaner, reliable energy but also help them with capacity building.

Meanwhile, back-to-back LNG carrier shipbuilding contracts were signed between Mitsui O.S.K Lines in Japan, and Hudong-Zhonghua Shipbuilding Group in China, for the construction of four new LNG carriers.

We are pleased to be working with our reliable business partners from China and Japan. We look forward to announcing many more such contracts in the near future in our relentless pursuit to ensure a reliable supply of additional clean energy to the world.

His Excellency Mr. Saad Sherida Al-Kaabi

Minister of State for Energy Affairs, the President and CEO of QatarEnergy



In line with QatarEnergy LNG' Direction Statement and the Qatar National Vision (QNV) 2030, the Environmental Strategy prioritises research collaboration to raise environmental awareness, enhance capacity building both within QatarEnergy LNG and the State of Qatar, and most importantly, utilise applied research to develop innovative solutions to support achievement of the Company's strategic environmental targets.

Environmental Research Collaboration

As part of our Environmental Strategy, we have established a detailed research collaboration framework that involves national research organisations and industry innovation centers. These include Qatar University, TAMU, the Aquatic Fisheries Research Center, ExxonMobil Research Qatar, ConocoPhillips Global Water Sustainability Center and TotalEnergies Research Qatar. A range of joint projects are already underway to find sustainable solutions to some of our commercial challenges. They span:

- **Sustainable Water Use:** mapping and benchmarking of QatarEnergy LNG facilities, enhancing performance of wastewater treatment facilities, and implementing innovative reuse opportunities for treated wastewater and reject streams.
- **Soil and Groundwater Management:** understanding potential soil and groundwater impacts on important subsurface facilities such as electrical cables, piping and other underground structures.
- **Marine Biodiversity Initiatives and Studies:** collaborating on major national studies related to marine habitat mapping, coral and sensitive habitat rehabilitation to support State of Qatar national biodiversity plans.
- **Geospatial Data Management:** geographic information systems to enhance the management, visualisation and geospatial reporting of comprehensive environmental data.
- **Climate Change Impact Assessments:** addressing emerging risks from GHG-related market requirements, including the impact of carbon neutral LNG, measurement, reporting and verification system enhancement, and assessment of decarbonisation pathways.
- **Methane and Air Emissions Assessments:** implementation of advanced technologies to measure and monitor methane emissions to support State of Qatar commitments to Oil and Gas Methane Partnership. Assessing Criteria Air Contaminant emissions to evaluate long-term operational and process mitigation options.
- **Training, Development and Go Green Environmental Collaboration:** tailored environmental trainings for employees, students and society to raise awareness and engagement.

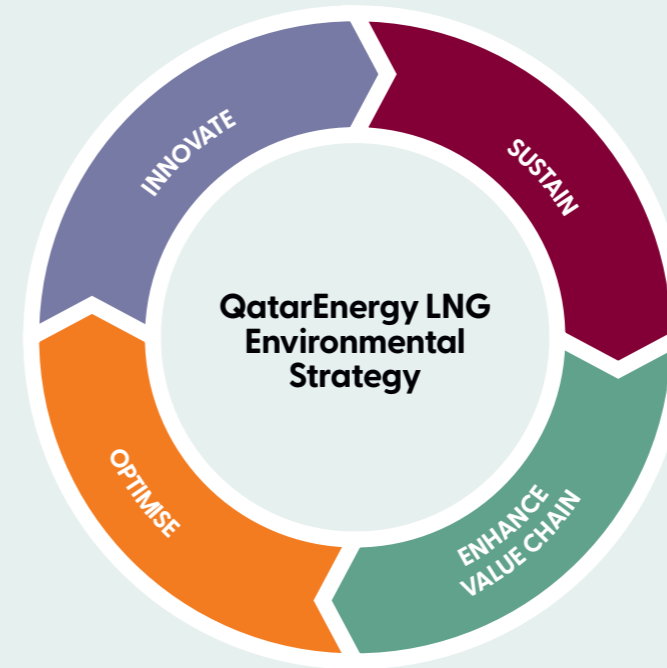
Our strategy recognises the important role of research, innovation and industry collaboration in addressing national and global environmental challenges and promoting the important role of LNG in the energy transition. We are therefore proud to partner with our shareholder and national research centers in creating QatarEnergy LNG' Environmental Research Collaboration Framework to leverage their state-of-the-art resources and expertise in implementing our strategic environmental objectives, while also providing a strong platform for learning and capacity building, especially for our young national employees.

Khalifa Ahmed Al-Sulaiti

QatarEnergy LNG Chief Health Safety Environment Quality Officer



Environmental Strategy - Research Collaboration and Partnerships



Sustain:

- Sustain compliance
- Continual improvement
- Assess corporate risk

Enhance Value Chain:

- Enhance environmental culture
- Improve branding
- Focused CSR
- Biodiversity enhancement
- Assess and capitalise on environmental performance
- Stakeholder engagement
- Climate change mitigation
- UNSDGs alignment

Optimise:

- Climate change mitigation
- Resource/ energy efficiency
- Circular economy (waste management)
- Supply chain optimisation

Innovate:

- Research collaboration
- Digitalisation
- Enhanced energy efficiency
- Transition in energy landscape

Air Emissions and Geospatial Data Management

1. Environmental Geospatial Data Management
2. Predictive Emissions Monitoring (PEMS)
3. Air Emissions Impact Assessment
4. Advanced Methane Monitoring Technologies

Soil and Groundwater

1. Subsurface Facilities Impact Assessment
2. Soil and Groundwater Baseline
3. 3D Fate and Transport Model Development
4. Groundwater Management Best Practices

Climate Change

1. Regulatory and Market Assessment – GHG Risks
2. Carbon Neutral LNG Framework
3. GHG and Methane MRV Enhancement
4. Decarbonisation Pathways and Energy Efficiency

Water

1. Sustainable Water Management Roadmap
2. Treatment / Reuse Assessment and Pilot Studies
3. Existing Wastewater Facility Performance Enhancement
4. QatarEnergy LNG Facilities Water Mapping

Biodiversity

1. Coral Relocation, Artificial Reef Deployment
2. Coral Nursery and Coral Fragmentation
3. Mangrove Protection Plan
4. Coral Reef and Sensitive Marine Habitat Mapping

Environmental Outreach, Culture

1. Go Green Environmental Awareness
2. Site Training / Familiarisation
3. Environmental Learning Workshops

Within QatarEnergy LNG, we continued to innovate to ensure exceptional standards of quality, whilst supporting reliable and efficient operations. Automating processes are part of this and in 2022 we saw a number of milestones in our digital transformation strategy. These included the launch of QatarEnergy LNG 360° insight, our HSEQ Dashboard, which applies smart analytics so users can make rapid, data-driven decisions. We also rolled out eSignature solutions that avoid approximately 644 tonne of carbon emissions and 274 tonne of timber associated with paper use every year – that is the equivalent of removing 131 cars from the road and conserving 1,846 trees. Moreover, our Hydrocarbon Information Management System means we can manage the LNG value chain, from well head to the customer in an efficient and reliable manner.

Detailed Disclosures

In line with our commitment to conduct business transparently and ethically, the tables below show case our sustainability related data. We also make technical disclosures against best practice GRI disclosures as part of our journey of continual reflection and improvement.



Performance Data

KPIs	2020	2021	2022
Contribution fo Society			
Workplace Safety and Medicine			
Fatalities, employees		0	0
Total Recordable Injuries, employees	1	2	3
Total Recordable Injury Frequency	0.09	0.2	0.28
Employee Lost Time Injuries	0	0	0
Employee Lost Time Injury Frequency	0	0	0
Heat stress events (employees)		1	1
Occupational illnesses (other than heat stress), employees and contractors	N/A	15	3 others (Gastroenteritis)
Total Medical mass screenings	22,639	34,731	73,597
COVID 19 Vaccinations	N/A	25,570	9,145
Periodic medical examinations	1,597	1,929	2,836
Process Safety			
Tier 1 process safety events	1	4	3
Tier 2 process safety events	3	3	1
Workforce			
Employees that took parental leave	86	112	106
• Female	29	33	30
• Male	57	79	76
Parental leave return to work rate (%)			100
• Female (%)	85.5	96.7	100
• Male (%)	100	100	100
Diversity and Inclusion			
Employees (permanent)	4525	5045	5258
• Female	411	502	518
• Male	4114	4543	4740
Employees (temporary)	796	525	572
By age			
Age 18-30 (%)	8.89%	8.47%	8.20%
Age 30-50 (%)	70.04%	69.39%	68.04%
Age >50 (%)	21.07%	22.14%	23.76%

KPIs	2020	2021	2022
Contribution fo Society			
By Region			
N. America (%)	2.41%	2.33%	2.26%
S. America (%)	0.53%	0.53%	0.48%
Europe (%)	3.16%	3.23%	3.31%
Africa (%)	6.30%	6.91%	7.46%
Middle East (%)	34.97%	33.32%	32.45%
Asia (%)	52.34%	53.43%	53.74%
Oceania (%)	0.30%	0.25%	0.29%
By employment level			
Senior management (%)	1.32%	1.15%	1.11%
Middle management (%)	8.21%	8.51%	8.83%
Staff (%)	90.47%	90.34%	90.05%
New hires and turnover			
Age 18-30 (%)	44.30%	22.09%	25.75%
Age 30-50 (%)	48.32%	70.24%	66.21%
Age >50 (%)	7.38%	7.67%	8.05%
• Female (%)	14.77%	9%	11%
• Male (%)	85.23%	91%	89%
Turnover rate (%)	8.49%	3.25%	3.29%
Qatarisation			
Nationals among total full-time workforce	1521	1546	1575
Qatarisation rate	33.91%	33.72%	33.35%
Female National full-time employees	299	309	315
Male National full-time employees	1222	1237	1260
Qatarisation, senior management	51	51	52
Qatarisation, middle management	192	214	234
Qatarisation, staff level	1278	1281	1289
Local Communities			
Social investment (QAR)	4,430,811	3,631,953.68	20,253,908.86
Indirect Economic Impact			
Positions sustained	5321	5570	5830

KPIs	2020	2021	2022
Preserving our Environment			
Greenhouse Gas (GHG) Emissions			
Total GHG emissions (Scope 1 and Scope 2) (tonnes carbon dioxide equivalent – tonne CO ₂ e)	34,728,305	34,342,909	37,641,259
Direct (Scope 1) GHG Emissions (tonne CO ₂ e)	33,865,102	33,446,693	36,577,907
Indirect (Scope 2) GHG Emissions (tonne CO ₂ e)	863,203	896,217	1,226,128
Transportation emissions (road) (tonne CO ₂ e)	4,636	11,232	13,630
LNG loading GHG emissions (tonne CO ₂ e)	76,484	108,954	79,390
GHG emission intensity (tonne CO ₂ e /tonne of hydrocarbon production)	0.29	0.30	0.30
Nitric oxides (NO _x) emissions (tonne)	14,436	14,482	15,004
Sulfur oxides (SO _x) emissions (tonne)	23,441	21,009	24,798
Volatile Organic Compounds (VOCs) (tonne)	1,436	1,322	1,246
Flaring (MMSCF)	22,673	18,267	17,200
LNG process flaring (% of sweet gas production)	0.44%	0.37%	0.32%
Turnaround (shutdown flaring) (million standard cubic feet - MMSCF)	1,643	1,764	1,485
Energy			
Direct energy consumption (fuel) (Million gigajoules - GJ)	539	531	558
Indirect energy consumption (MGJ)	4.3	4.3	6.4
Energy consumption outside the organisation (MGJ)	0.07	0.07	0.07
Total energy use (direct and indirect) (MGJ)	543	535	564
Energy intensity (MGJ/Tonne of hydrocarbon)	4.57	4.63	4.53
Waste Management			
Waste generation (tonne)	13,512	11,266	17,558
Hazardous waste generation (tonne)	7,508	5,668	10,018
Non-hazardous waste generation (tonne)	6,003	5,598	7,541
Recycling rate (%)	61%	57%	53%
Waste recycled (tonnes)	8,226	6,431	9,262
Water and Effluents			
Desalinated water consumption (million cubic meters - Mm ³)	8.7	8.8	9.6
Water consumption intensity (Mm ³ /tonne of hydrocarbon produced)	0.070	0.075	0.077
Desalinated water generated from seawater (Mm ³)	4.6	4.4	4.6

KPIs	2020	2021	2022
Preserving our Environment			
Wastewater recycled and reused (%)	65%	68%	64%
Reject/Treated wastewater discharged to sea (%)	23%	24%	30%
Reject wastewater to deep well injection (%)	12%	8%	6%
Responsible Governance			
Efficient and Reliable Operations			
Late deliveries	0	0	0
Off specs deliveries	0	0	0
LNG reliability (%)	98.10%	98.40%	98.60%
LNG availability (%)	94.60%	95.40%	95.30%

GRI Content Index

For the Content Index - Advanced Service, GRI Services reviewed that the GRI content index is clearly presented, in a manner consistent with the Standards, and that the references for all disclosures are included correctly and aligned with the appropriate sections in the body of the report.

The service was performed on the English version of the report.



Statement of use	QatarEnergy LNG has reported in accordance with the GRI Standards for the period of 1/1/2022 till 31/12/2022
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI sector standards	GRI 11: Oil and Gas Sector 2021

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer		Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation		
General disclosures						
GRI 2: General Disclosures 2021	2-1 Organizational details	2				
	2-2 Entities included in the organization's sustainability reporting	2				
	2-3 Reporting period, frequency and contact point	2				
	2-4 Restatements of information	No data was restated				
	2-5 External assurance	QatarEnergy LNG doesn't seek external assurance.				
	2-6 Activities, value chain and other business relationships	6				
	2-7 Employees	6,26-29,65,66				
	2-8 Workers who are not employees	33				
	2-9 Governance structure and composition	52				
	2-10 Nomination and selection of the highest governance body	51,52				
	2-11 Chair of the highest governance body	52				
	2-12 Role of the highest governance body in overseeing the management of impacts	51,53				
	2-13 Delegation of responsibility for managing impacts	51,53				
	2-14 Role of the highest governance body in sustainability reporting	53				

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 2: General Disclosures 2021	2-15 Conflicts of interest	53,54			
	2-16 Communication of critical concerns	54,55			
	2-17 Collective knowledge of the highest governance body	Not disclosed	Information unavailable/incomplete and Value not measured yet		
	2-18 Evaluation of the performance of the highest governance body	Not disclosed	Confidentiality constraints	Due to internal policies	
	2-19 Remuneration policies	Not disclosed	Confidentiality constraints and Due to internal policies		
	2-20 Process to determine remuneration	Not disclosed	Confidentiality constraints and Due to internal policies		
	2-21 Annual total compensation ratio	Not disclosed	Confidentiality constraints	Due to internal policies	
	2-22 Statement on sustainable development strategy	QatarEnergy LNG Publication			
	2-23 Policy commitments	Not disclosed	Information unavailable/incomplete and Value not measured yet		
	2-24 Embedding policy commitments	Not disclosed	Information unavailable/incomplete and Value not measured yet		
	2-25 Processes to remediate negative impacts	54,55			
	2-26 Mechanisms for seeking advice and raising concerns	54			
	2-27 Compliance with laws and regulations	Not disclosed	Confidentiality constraints and Due to internal policies		
	2-28 Membership associations	30,46,61,62			
	2-29 Approach to stakeholder engagement	9			
2-30 Collective bargaining agreements	Collective bargaining is prohibited in Qatar	Legal prohibitions and Collective bargaining is illegal in Qatar			

Material Topics

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 3: Material Topics 2021	3-1 Process to determine material topics	8,9			
	3-2 List of material topics	8			
Qatarization					
GRI 3: Material Topics 2021	3-3 Management of material topics	27-28			11.2.1 11.14.1
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	Not disclosed	Confidentiality constraints	Due to internal policies	11.14.2
	201-2 Financial implications and other risks and opportunities due to climate change	Not disclosed	Information unavailable/incomplete	Value not measured yet	11.2.2
GRI 202: Market Presence 2016	202-2 Proportion of senior management hired from the local community	28,66			11.11.2 11.14.3
Indirect economic impacts					
GRI 3: Material Topics 2021	3-3 Management of material topics	32-33			11.14.1
GRI 203: Indirect Economic Impacts 2016	203-1 Infrastructure investments and services supported	29-31			11.14.4
	203-2 Significant indirect economic impacts	32,66			11.14.5
Governance (ensure protection), ethics and transparency					
GRI 3: Material Topics 2021	3-3 Management of material topics	51-54			11.20.1
GRI 205: Anti- corruption 2016	205-1 Operations assessed for risks related to corruption	Not disclosed	Information unavailable/incomplete	Value not measured yet	11.20.2
	205-2 Communication and training about anti-corruption policies and procedures	51-54			11.20.3
	205-3 Confirmed incidents of corruption and actions taken	Not disclosed	Confidentiality constraints	Due to internal policies	11.20.4
Energy					
GRI 3: Material Topics 2021	3-3 Management of material topics	44			11.1.1
GRI 302: Energy 2016	302-1 Energy consumption within the organization	67			11.1.2
	302-2 Energy consumption outside of the organization	67			11.1.3
	302-3 Energy intensity	44,67			11.1.4
	302-4 Reduction of energy consumption	44,67			
Water and effluents					

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 3: Material Topics 2021	3-3 Management of material topics	47,48			11.6.1 11.8.1
	303-1 Interactions with water as a shared resource	47			11.6.2
	303-2 Management of water discharge-related impacts	47,48			11.6.3
GRI 303: Water and Effluents 2018	303-3 Water withdrawal	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.6.4
	303-4 Water discharge	67			11.6.5
	303-5 Water consumption	67			11.6.6
GRI 306: Effluents and Waste 2016	306-3 Significant spills	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.8.2
Biodiversity and ecosystems					
GRI 3: Material Topics 2021	3-3 Management of material topics	48,49			11.4.1
	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.4.2
GRI 304: Biodiversity 2016	304-2 Significant impacts of activities, products and services on biodiversity	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.4.3
	304-3 Habitats protected or restored	38,48,49			11.4.4
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.4.5
Greenhouse Gas (GHG) emissions					
GRI 3: Material Topics 2021	3-3 Management of material topics	40,41,43			11.1.1 11.2.1 11.3.1
	305-1 Direct (Scope 1) GHG emissions	67			11.1.5
	305-2 Energy indirect (Scope 2) GHG emissions	67			11.1.6
GRI 305: Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.1.7
	305-4 GHG emissions intensity	43,67			11.1.8
	305-5 Reduction of GHG emissions	39			11.2.3
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	44,67			11.3.2
Waste management					

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 3: Material Topics 2021	3-3 Management of material topics	45,46			11.5.1
	306-1 Waste generation and significant waste-related impacts	45,46			11.5.2
GRI 306: Waste 2020	306-2 Management of significant waste-related impacts	45,46			11.5.3
	306-3 Waste generated	46,67			11.5.4
GRI 306: Waste 2020	306-4 Waste diverted from disposal	46,67			11.5.5
	306-5 Waste directed to disposal	46,67			11.5.6
Workplace safety and medicine					
GRI 3: Material Topics 2021	3-3 Management of material topics	13-16,19			"11.9.1 11.3.1"
	403-1 Occupational health and safety management system	20			11.9.2
	403-2 Hazard identification, risk assessment, and incident investigation	19,20			11.9.3
	403-3 Occupational health services	13-16,19			11.9.4
	403-4 Worker participation, consultation, and communication on occupational health and safety	16,18,20			11.9.5
GRI 403: Occupational Health and Safety 2018	403-5 Worker training on occupational health and safety	14,16			11.9.6
	403-6 Promotion of worker health	16,18-20			11.9.7
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	19-21			11.9.8
	403-8 Workers covered by an occupational health and safety management system	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.9.9
	403-9 Work-related injuries	18,65			11.9.10
	403-10 Work-related ill health	18,20,65			11.9.11
GRI 416: Customer Health and Safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.3.3
Training and development					

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 3: Material Topics 2021	3-3 Management of material topics	22-24			11.10.1 11.7.1
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	16,24			11.10.6 11.11.4
	404-2 Programs for upgrading employee skills and transition assistance programs	23			11.10.7 11.7.3
	404-3 Percentage of employees receiving regular performance and career development reviews	Not disclosed	Information unavailable/ incomplete	Value not measured yet	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	66			11.10.2
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	20			11.10.3
	401-3 Parental leave	Not disclosed	Information unavailable/ incomplete	Value not measured yet	11.10.4 11.11.3
GRI 402: Labor/ Management Relations 2016	402-1 Minimum notice periods regarding operational changes	Not disclosed	Confidentiality constraints	Due to internal policies	11.10.5 11.7.2
Diversity and inclusion					
GRI 3: Material Topics 2021	3-3 Management of material topics	25,26			11.11.1
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	65,66			11.11.5
	405-2 Ratio of basic salary and remuneration of women to men	Not disclosed	Confidentiality constraints	Due to internal policies	11.11.6
GRI 406: Non- discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	54			11.11.7
Local communities					
GRI 3: Material Topics 2021	3-3 Management of material topics	29-31			11.15.1 11.16.1
GRI 413: Local Communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	30			11.15.2
	413-2 Operations with significant actual and potential negative impacts on local communities	31			11.15.3
Sustainable procurement					

GRI Standard/ Other Source	Disclosure	Location and/or Direct Answer	Omissions		GRI Sector Standard Ref. No.
			Reason	Explanation	
GRI 3: Material Topics 2021	3-3 Management of material topics	58			11.10.1 11.14.1
GRI 204: Procurement Practices 2016	204-1 Proportion of spending on local suppliers	Not disclosed	Confidentiality constraints	Due to internal policies	11.14.6
GRI 414: Supplier Social Assessment 2016	414-1 New suppliers that were screened using social criteria	Not disclosed	Confidentiality constraints	Due to internal policies	11.10.8
	414-2 Negative social impacts in the supply chain and actions taken	Not disclosed	Confidentiality constraints	Due to internal policies	11.10.9
We also report on topics that are not covered by the GRI standards					
Customer satisfaction					
GRI 3: Material Topics 2021	3-3 Management of material topics	58,59			
Efficient and reliable operations					
GRI 3: Material Topics 2021	3-3 Management of material topics	59,68			
Risk and crisis management					
GRI 3: Material Topics 2021	3-3 Management of material topics	54-56			
Process safety					
GRI 3: Material Topics 2021	3-3 Management of material topics	14,19,20			
Innovation and clean technology					
GRI 3: Material Topics 2021	3-3 Management of material topics	60-62			
Financial performance					
Topics in the applicable GRI Sector Standards determined as not material					
Topic		Explanation			
Topic 11.12 Forced labor and modern slavery		Confidentiality constraints			
Topic 11.13 Freedom of association and collective bargaining		Legal prohibitions			
Topic 11.17 Rights of indigenous peoples		Not applicable			
Topic 11.18 Conflict and security		Information unavailable/incomplete			
Topic 11.19 Anti-competitive behavior		Legal prohibitions			
Topic 11.21 Payments to governments		Legal prohibitions			
Topic 11.22 Public policy		Legal prohibitions			



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