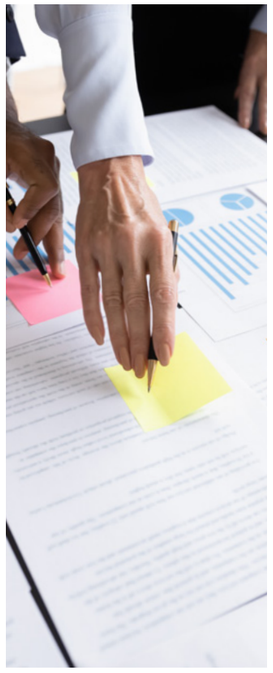
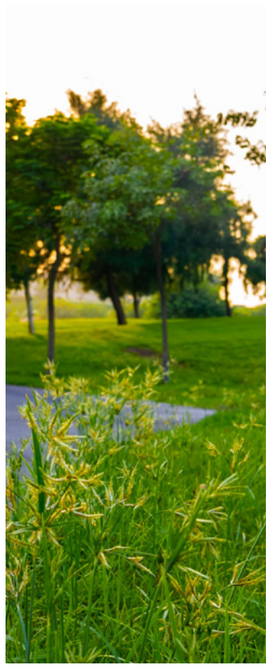
# Your Energy Transition Partner

## Sustainability Report 2023


قطر للطاقة
QatarEnergy

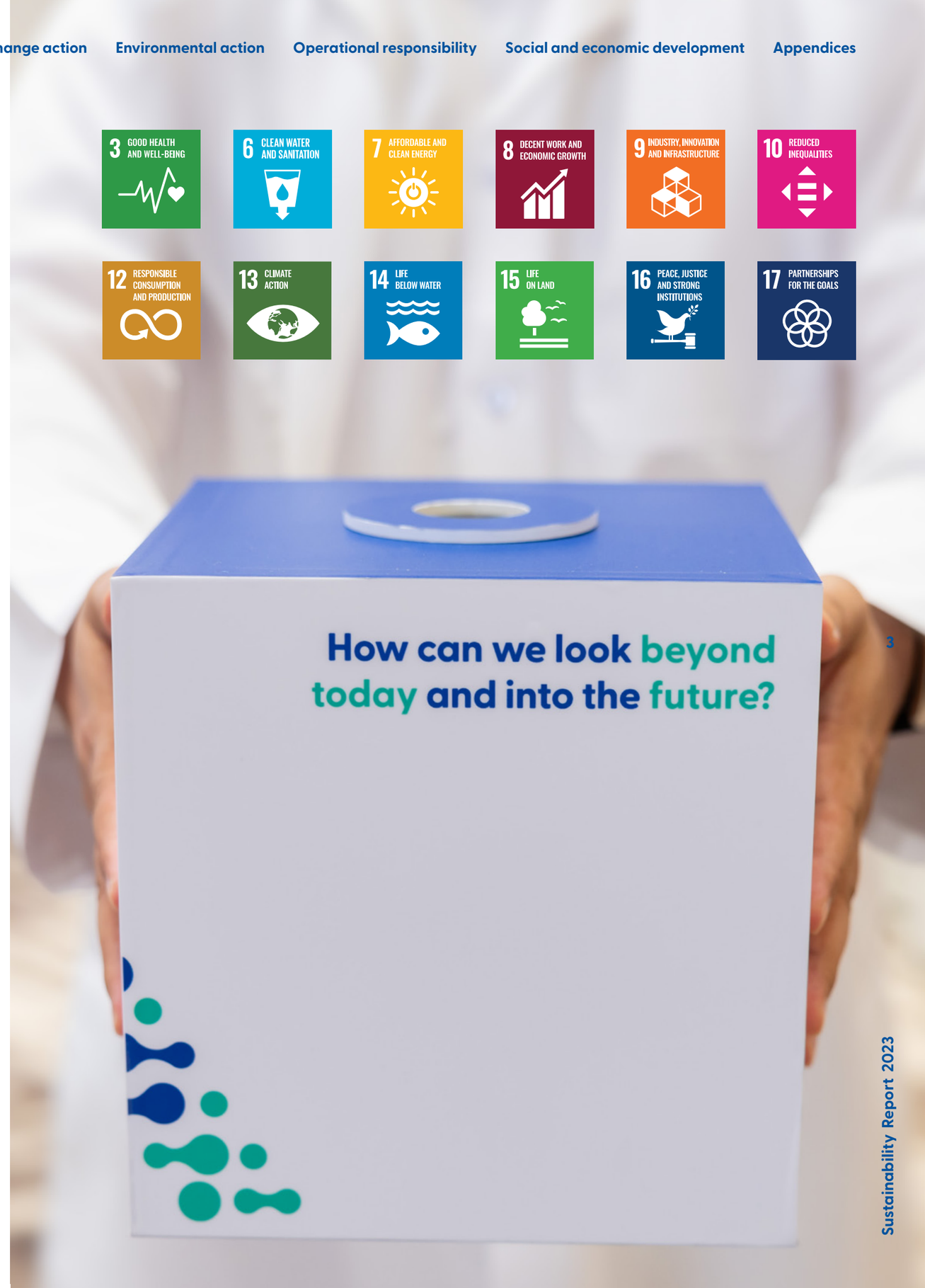
# Contents





# Sustainability at QatarEnergy





# Message from H.E. the President & CEO

Welcome to QatarEnergy's 14th annual sustainability report, which highlights our continued efforts towards achieving our sustainability goals and contributing to a more secure, resilient and equitable energy future.

While navigating the intricate and rapidly evolving global energy landscape, QatarEnergy remains committed to sustainable development and responsible business stewardship. This commitment has become even more paramount as the world grapples with the formidable challenge of balancing the trilemma of energy security, affordability and sustainability, which all impact our everyday lives. Achieving this delicate balance requires a scientifically-based realistic approach for a fair, balanced and sustainable energy transition that also protects the rights and well-being of future generations.

In 2023, QatarEnergy refreshed its corporate strategy, marking the first update since 2018. Sustainability runs through all strategic themes in the refreshed strategy, as we recognize and work to position our business to meet the increased demand for sustainable practices from consumers, joint venture partners and other stakeholders.

QatarEnergy is proud of its role as a leading supplier of accessible and lower-carbon intensity LNG – a central component of a realistic energy transition. In parallel, we are taking a leading role in advancing vital technologies including carbon capture and storage, renewable energy generation and innovative lower-carbon energy carriers such as blue ammonia.

As we reflect on our journey towards sustainability, it is imperative to acknowledge the significance of our climate performance metrics. In 2023, the methane intensity of our LNG facilities stood below 0.1% compared to our target of 0.2%. Concurrently, LNG flaring intensity decreased by over 20% since 2020, reaching 0.38%. Meanwhile, energy efficiency improvements helped achieve gas savings of 57 million cubic feet per day since 2013, which corresponds to a reduction in $CO_2$ emissions of 1.2 million metric tons per year.

In support of the national vision to address climate change, QatarEnergy has dedicated substantial efforts throughout 2023 to build on the policy and regulatory foundations, necessary for robust management of carbon emissions. Work continues for the development of a comprehensive carbon management framework consisting of an emissions monitoring, reporting and verification system covering all sectors; a renewable energy certificate framework; and regulatory standards for carbon capture, utilization and storage; complemented by a transparent and credible carbon accounting policy framework. By supporting these projects, QatarEnergy continues to demonstrate commitment to fostering an enabling environment for sustainable development.

In terms of renewable energy generation, I am pleased to note that Al Kharsaah solar power plant surpassed one million megawatt-hour of cumulative power production since commencing operations in mid-2022.

We believe our success goes hand-in-hand with the well-being of the communities within which we operate. We continue to maintain our commitment to the health and safety of our workforce, the integrity of our assets and the protection of the local communities. 2023 was the second consecutive year in which QatarEnergy had zero work-related fatalities among our employees and contractors. This reflects the success of our initiatives aimed at fostering a safety culture that sets the standard in our industry.

Our dedication to sustainability extends beyond environmental considerations to encompass social and economic dimensions. In 2023, we continued to foster responsible business practices by developing our first Supplier Principles of Conduct, which serve as a guiding framework, emphasizing our shared commitment to ethical business conduct, human rights and environmental stewardship. In addition, we have promoted local development programs with a broad portfolio of community-based initiatives in line with Qatar's national development plans and the United Nations Sustainable Development Goals, including supporting the creation of job opportunities and the transfer of know-how and skills to our local partners.

On behalf of QatarEnergy, I want to express our heartfelt appreciation to all our partners and stakeholders for their valuable support and collaboration, as we collectively work to support a sustainable energy transition. I would also like to express our deepest gratitude to His Highness Sheikh Tamim bin Hamad Al Thani, the Amir of the State of Qatar, for his vision, guidance and unlimited support.

**Saad Sherida Al-Kaabi**

Minister of State for Energy Affairs,
The State of Qatar

President & CEO, QatarEnergy

# 2023 sustainability highlights

### Completed implementation of Asset Management Framework

for all major assets

Page 26

### $CO_2$ captured

**6.3 million metric tons**

captured through carbon capture and storage (CCS) since inception of the facility in 2019

Page 48

### Launch of water conservation project

to better understand and manage water use across our operations

Page 54

### Gas savings

**57 MMSCFD**

through energy efficiency initiatives since 2013

Page 44

### Solar power generation

**1 million MWh**

of cumulative power generation achieved by Al Kharsaah solar power plant since the start-up of the facility in 2022

Page 46

### Collaboration with companies based in Qatar

to launch an air pollution dispersion modeling project

Page 53

### Maintained OGMP 2.0 Gold Standard*for 3rd consecutive year

**Gold Standard**

2021 ✓ 2022 ✓ 2023 ✓ 2024 2025

*on the basis of a credible implementation plan.

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### Trees planted

**116,000 trees**

in 2023 across Ras Laffan, Mesaieed and Dukhan under the 'One Million Trees' project initiated in 2022

Page 61

### Work-related fatalities

**0**

among our employees and contractors for second consecutive year

Page 69

### Implemented an In-Vehicle Monitoring System (IVMS)

across our fleet of over 900 vehicles

Page 70

### Introduced and rolled out 10 Process Safety Fundamentals

aimed at enhancing the safety of our assets, projects and operations

Page 73

### Refreshed People Agenda

emphasizing the role of people in the success of our business

Page 82

### Developed and launched our first Supplier Principles of Conduct

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# Introduction

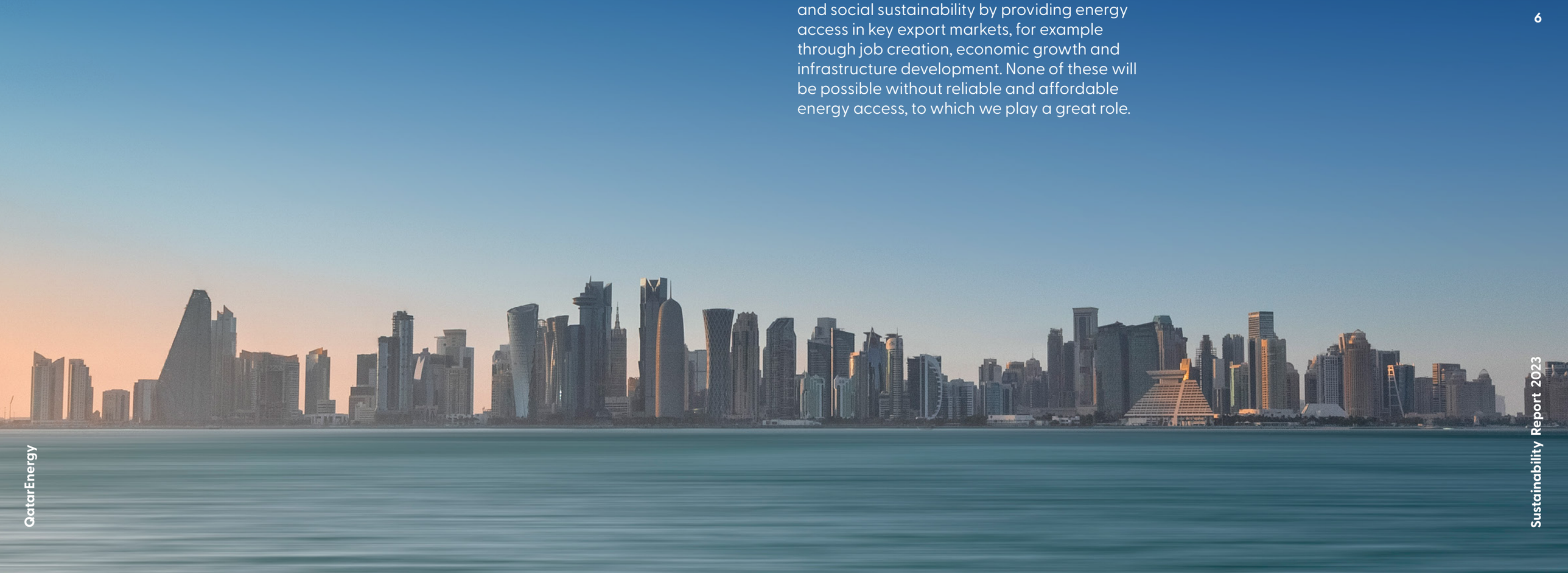
QatarEnergy – your energy transition partner – is committed to fostering a future where energy is accessible, reliable and sustainable. We recognize the need for solutions that harmonize sustainable practices with the evolving energy needs of our planet and global communities.

QatarEnergy is aligned with the State of Qatar's commitment to sustainable development. Embracing Qatar National Vision 2030 (QNV 2030), we are dedicated to driving positive change in Qatar by placing greater emphasis on environmental sustainability, economic prosperity and social development.

To accomplish Qatar's National Climate Change Action Plan 2030 (NCCAP), we play a major role in addressing and mitigating the energy sector's emissions (please refer to Climate change action chapter of this report). Our initiatives also contribute to achieving Qatar's overall greenhouse gas (GHG) emissions reduction targets in line with the third National Development Strategy 2024 – 2030 (NDS 3). Furthermore, QatarEnergy's business practices and operations play a vital role for Qatar's social and economic growth and positively contribute to the overall wellbeing of our society.

On the global stage, QatarEnergy is proud to be one of the largest liquefied natural gas (LNG) producers worldwide. Natural gas emits less carbon than most other fossil fuels and plays an important role as a baseload fuel in global electricity generation. As global gas demand grows, LNG will continue to play a vital role in the energy transition. We contribute to environmental sustainability beyond borders by participating in international efforts to address climate change and promote sustainable practices within our operations, for example by working towards lowering the carbon footprint associated with the production of our key exports (please refer to Climate change action chapter of this report). Our activities also support economic and social sustainability by providing energy access in key export markets, for example through job creation, economic growth and infrastructure development. None of these will be possible without reliable and affordable energy access, to which we play a great role.

We actively support the United Nations Sustainable Development Goals (UN SDGs), particularly focusing on SDG 7 (Affordable and Clean Energy), SDG 8 (Decent Work and Economic Growth) and SDG 13 (Climate Action). We enable greater access to energy, support economic development, invest in our people and broader society, while strengthening resilience to climate change impacts. Recognizing the interconnectedness of global communities, we leverage our position as a major energy player to advocate for responsible and sustainable energy solutions. Implementing and acting on the relevant UN SDGs sets the foundations of our sustainability strategy.



# Our sustainability strategy

**Our strategic pillars**
Our sustainability strategy is integrated across our business. It is built upon three pillars, each contributing to our commitment towards a more sustainable future. The first pillar, 'Climate change and environmental action', focuses on supplying lower-carbon LNG supporting global sustainability, reducing our carbon footprint and developing new lower-carbon energy solutions, curbing operational emissions, capturing and offsetting hard-to-abate emissions, minimizing and recycling waste through circular practices and protecting the environment throughout our operational activities. The second pillar, 'Operational responsibility' underscores our dedication to the safety of our people and assets, as well as to operational excellence. The third pillar, 'Social and economic development', reflects our commitment to creating positive socio-economic impacts. This pillar encompasses caring for our people, as well as creating value and sharing it across communities.

**Our enablers**
Underpinning these pillars are four strategic enablers that drive our approach to sustainability. A 'Culture of sustainability' promotes a mindset which aims to incorporate care for the environment, communities and each other in the decisions we make. 'Innovation, creativity and a learning mindset' serves as a catalyst for transformative change driving the development and implementation of cutting-edge solutions and practices. 'Collaboration, co-creation and stakeholder engagement' is all about the crucial role of people connecting across boundaries to ensure a holistic and inclusive approach to sustainability.

'Responsible business conduct and governance' forms the basis for the implementation and delivery of our sustainability strategy. Upholding the highest standards of ethical conduct and governance practices is paramount to our sustainability journey. It ensures transparency, accountability and responsible decision-making in all aspects of our business operations.

**Our policies**
Serving as a bedrock are QatarEnergy's Code of Conduct and Foundational Policies, with the Sustainability Policy holding a key position. It lays out clear guidelines and objectives to promote sustainable business practices. By implementing these policies, we strengthen our commitment to environmental stewardship, social responsibility and economic resilience. This framework goes beyond meeting expectations, it aims to surpass them, securing a sustainable and responsible legacy.

**QatarEnergy's sustainability strategy**

**Ahmad Saeed Al-Amoodi**

Executive Vice President,
Surface Development & Sustainability

The world needs a pragmatic and realistic approach to the energy transition that ensures universal access to affordable, resilient energy sources while reducing carbon emissions. We believe the widely promoted conventional decarbonization approach is ineffective, as it fails to address the energy needs of billions of people.

This global journey requires a balanced, integrated strategy that leverages various energy sources and solutions. Natural gas is the key to this transition as it is abundant, affordable and flexible, with significantly lower emissions than other fossil fuels. It can provide a reliable baseload supply, complementing intermittent renewable sources like solar and wind. Moreover, natural gas can be easily transported and stored, making it a resilient energy source for regions lacking domestic resources.

QatarEnergy is advancing this transition by leveraging natural gas alongside clean energy carriers like lower-carbon ammonia, supported with solutions such as carbon capture, utilization and storage.

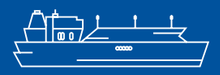
Our commitment lies in providing reliable, affordable and cleaner energy to everyone while supporting energy transition, economic growth and development worldwide.

The energy transition must be inclusive, leaving no one behind.

# Commitment to sustainability

## Responsible business conduct and governance

### Climate change and environmental action


Supplying lower-carbon LNG


Deploying CCUS and local nature-based solutions


Reducing emissions from our facilities


Protecting, restoring and enhancing habitat and biodiversity


Preserving water


Developing low-carbon energy


Promoting circular economy

### Operational responsibility


Preventing risks related to people's health and safety


Operating our assets safely


Achieving operational excellence

### Social and economic development


Enabling and inspiring our people to participate


Creating and growing value


Sharing with others

Culture of sustainability

Innovation, creativity and a learning mindset

Collaboration, co-creation and stakeholder engagement

# About the report

This is QatarEnergy's 14th consecutive annual sustainability report.

## Reporting period

This sustainability report covers the period 1 January to 31 December 2023, unless otherwise stated.

## Reporting boundary

The disclosed data pertains to the consolidated results of QatarEnergy Group[1].

Our Scope 1 and 2 GHG emissions covered in this report were calculated and reported using two different boundaries: operational control and equity. Under the operational control boundary, we reported 100% of the emissions from assets and activities that we operate. Under the equity boundary, we reported a proportion of GHG emissions that corresponds to QatarEnergy's effective percent ownership. Please refer to Appendix G of this report for the list of entities included in our Scope 1 and 2 GHG emissions and the corresponding equity percent.

All other data covers QatarEnergy's operated assets only, unless otherwise stated.

## Our standards and policies

We have a number of standards and policies in place that underline our commitment to ethical leadership, sustainable business practices and operational excellence. These include:

- **Code of Conduct**
- **Our Foundational Policies**
  - Human Rights Policy
  - Occupational Health and Safety Policy
  - Privacy of Personal Information Policy
  - Respectful Workplace Policy
  - Anti-Bribery and Corruption Policy
  - Anti-Fraud Policy
  - Anti-Money Laundering Policy
  - Asset Protection Policy
  - Competition Policy
  - Confidential Information Policy
  - Conflicts of Interest Policy
  - External Communication and Disclosure Policy
  - Regulatory Compliance Policy
  - Trade Compliance Policy
  - Climate Change Policy
  - Environment Policy
  - Stakeholder Engagement Policy
  - Sustainability Policy
  - Speaking Up Policy
- **Supplier Principles of Conduct**

[1] QatarEnergy Group refers to QatarEnergy and its consolidated subsidiaries and where the context requires, its joint operations, joint ventures and associates.

## Reporting guidelines

This report has been prepared with reference to Global Reporting Initiative (GRI) Standards.

## UN SDGs alignment

Each section of this report has been mapped to the respective UN SDGs impacted by the initiatives discussed. This alignment underscores our commitment to contributing meaningfully to the broader global sustainability agenda.

## Internal Processes

We have processes in place to ensure our reporting is aligned across the company and is internally verified. This includes processes for performance data collection and calculation.

## Independent verification

To further enhance the credibility of our reporting, specific data disclosures undergo third-party independent verifications.

Scope 1 and 2 GHG emissions in 2023 for the energy sector assets in the State of Qatar (operated and non-operated) have been verified by an independent third-party assurance provider to a reasonable level of assurance. The verification criteria included QatarEnergy's procedures and the EU Emission Trading System Monitoring and Reporting Regulation (EU ETS MRR).

We engaged LRQA to also independently assure our GHG emissions, including those of our international assets, as well as key environmental, health and safety parameters included in this report. LRQA conducted the verification in accordance with ISAE 3000 and ISAE 3410 standards to a limited level of assurance. The assurance engagement covered QatarEnergy's operations in the State of Qatar and its global affiliates, with a focus on specific requirements:

- Evaluation of the accuracy and reliability of the data and information for the selected indicators, including direct (Scope 1) and indirect (Scope 2) GHG emissions, GHG intensity, volatile organic compounds (VOC), particulate matter (PM) emitted, flaring disclosures, energy consumption, water disclosures, waste disclosures, biodiversity disclosures and health, safety and environmental (HSE) disclosures, such as fatality, recordable injuries, process safety events and lost time injuries.

For the Independent Assurance Statement, please refer to Appendix F of this report.

## Improvements in reporting

In our commitment to continuous improvement, we are proactive in seeking internal as well as external feedback on our report. The outcomes of an after-action review have been incorporated into this report. Additionally, we plan to conduct an assessment against upcoming reporting trends, ensuring that our reporting practices evolve to meet emerging sustainability standards and expectations.

# Focusing on what matters

During the reporting year, no major changes were identified to justify a renewed materiality assessment. During our previous materiality assessment conducted in 2022, we carried out extensive stakeholder consultations and industry analysis, conducted focus groups and sent surveys to selected stakeholders to gather their inputs. The inputs collected from these engagements provided us with a holistic view of the social, environmental and economic impacts associated with our operations. We identified key areas where our activities intersect with stakeholder interests and where we have the potential to create added value. In 2023, we built upon our previous assessments, leveraging insights gained to revisit and refine our focus on existing material topics.

This enabled us to align our sustainability initiatives with the concerns and expectations of our stakeholders, creating a more targeted and impactful approach to addressing the issues which are most significant.

While we maintained the focus on existing material topics in 2023, we recognize the dynamic nature of the sustainability landscape. Our commitment to continuous improvement remains unchanged and we will adapt our materiality assessment processes in the upcoming reporting periods to stay aligned with evolving stakeholder expectations and global sustainability trends.

## QatarEnergy's material topics

### Responsible business conduct and governance

- Anti-corruption
- Transparency and reporting
- Human rights assessment
- Non-discrimination

### Climate change and environmental action

- Emissions
- Environmental compliance
- Energy
- Investing in renewable solutions
- Waste
- Water and effluents
- Biodiversity

### Operational responsibility

- Occupational health and safety
- Assets integrity and reliability
- Data privacy and protection
- Customer health and safety
- Security practices
- Technology and innovation
- Market presence

### Social and economic development

- Economic performance
- Local communities
- Training and education
- Diversity and equal opportunity
- Labour management relationship
- External stakeholder engagement
- Socio-economic compliance

# Corporate overview



QatarEnergy is the national energy corporation of the State of Qatar. As a fully integrated energy company, QatarEnergy's activities span the full spectrum of the oil and gas value chain in Qatar. Our legacy as an international energy pioneer commenced in 1974. Today, we continue to supply energy that fuels social and economic prosperity, both within Qatar and globally as we expand our international footprint.

# Our portfolio

QatarEnergy is responsible for the management and development of Qatar's energy resources, and we place a strategic emphasis on natural gas and LNG given the unique nature of Qatar's local hydrocarbon reserves. QatarEnergy is one of the largest producers of LNG globally.

The company's upstream activities include gas and oil exploration, drilling and production. Midstream and downstream activities cover refining, gas processing and liquefaction, as well as gas-to-liquids (GTL), petrochemicals and fertilizers.

QatarEnergy's activities further include metals production, utilities and power generation. Moreover, we are establishing low-carbon business activities and operations through a growing portfolio of projects covering renewable power generation, lower-carbon ammonia and carbon capture, utilization and storage (CCUS).

Through our diverse activities, we produce a variety of products for different end-use markets. We undertake marketing and trading activities and are involved within the supply chain, from storage through to transportation and distribution of our products.

# Our activities and operations

## Exploration, drilling and production

- Exploration offshore
- Production offshore
- Production onshore

## Liquefaction

- LNG production

## Storage, transport and distribution

- Storage and terminals
- Shipping
- Pipelines
- Fuel distribution
- Regasification

## Power and utilities

- Gas-fired
- Solar

## Refining and gas processing

- Refining
- Gas-to-liquids
- Gas processing

## Metals

- Steel
- Aluminium

## Carbon capture, utilization and storage

- Carbon capture and storage

## Petrochemicals and fertilizers

- Olefins and derivatives
- Ammonia and fertilizers

## Other activities

- Marketing and trading
- Support services

# Our products

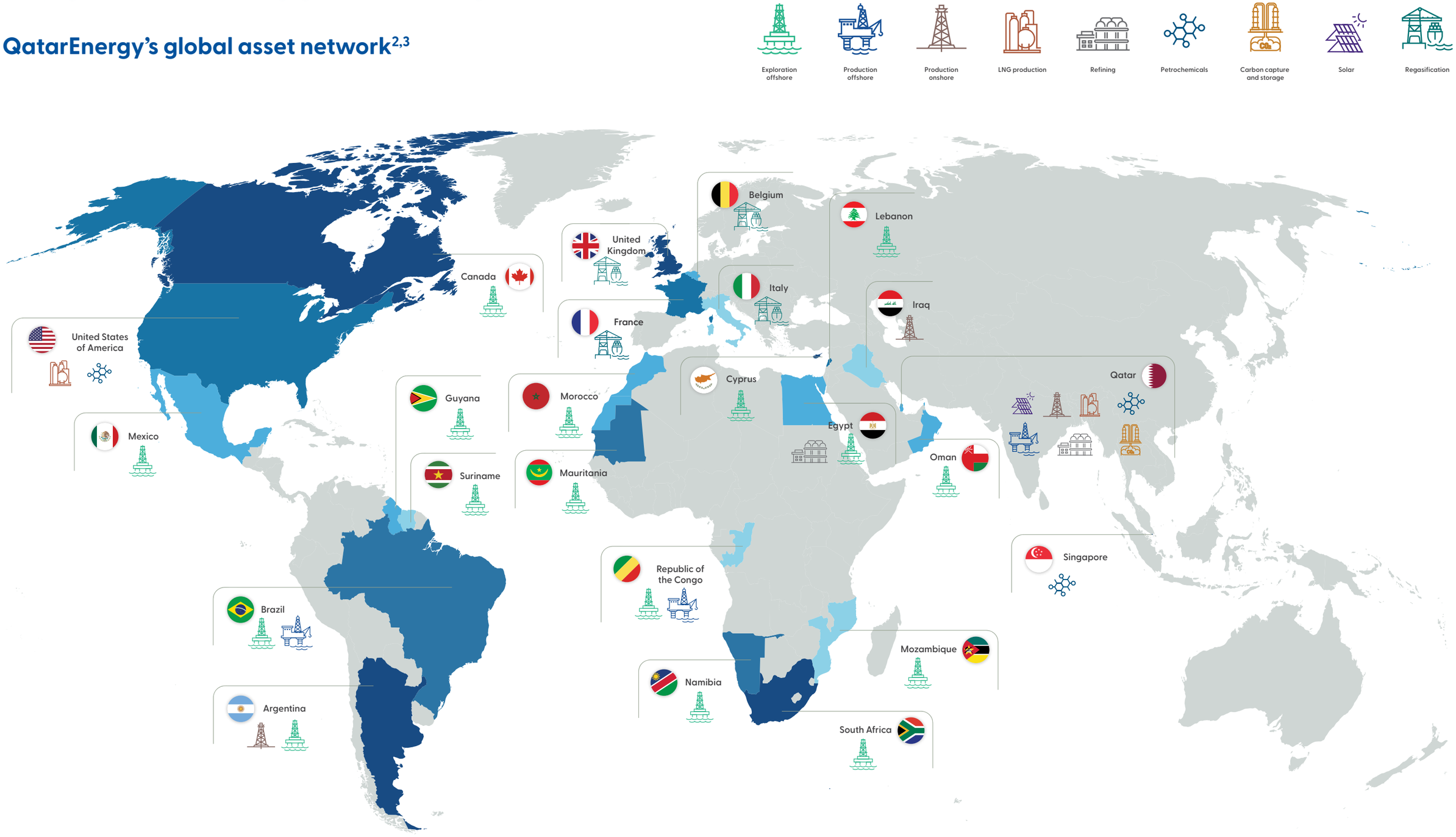
- Natural gas and natural gas liquids
- LNG
- Crude oil and condensates
- Refined products and additives
- Synthetic fuels
- Petrochemicals
- Ammonia and fertilizers
- Aluminium and steel
- Domestic power
- Helium
- Sulfur

# Markets we serve

- Power generation
- Industry and manufacturing
- Agriculture
- Residential and commercial energy
- Personal and commercial mobility
- Aviation
- Marine

QatarEnergy has a presence both locally in the State of Qatar and globally. Business activities are managed directly or through subsidiaries to provide energy solutions on a truly international scale. By leveraging our worldwide capabilities, we can deliver tailored energy solutions that drive progress in developed and emerging markets, whilst meeting localized needs and priorities.

## QatarEnergy's global asset network[2,3]




[2]Status as of 31st December 2023.

[3]A list of QatarEnergy's operated and non-operated assets can be found in Appendix G. For further information, the latest Annual Review is available on QatarEnergy's website.

# Vision and corporate strategy

QatarEnergy's vision is to be one of the best energy companies in the world. To achieve that, our recently updated corporate strategy outlines the steps we are taking to ensure that the company continues to supply the world with secure and affordable energy in a sustainable manner.

As "Your energy transition partner" we work closely with customers, partners, and other key stakeholders to understand and adapt to their evolving requirements in the rapidly changing energy landscape. In addition to our ongoing commitment to safety and sustainability across all our operations, our strategy reflects QatarEnergy's ambition to actively pursue low-carbon growth opportunities.

**Sustainability is integral to our refreshed corporate strategy**

**Tareq Ali Alhammadi**

Economic Analyst, Corporate Strategic Planning and Performance Management

The updated corporate strategy recognizes sustainability as a key enabler in our growing energy company. To meet buyers' evolving needs, we are committed to delivering reliable, lower-carbon LNG.


**Figure:** *QatarEnergy corporate strategy*

Our five strategic themes cover our main lines of business.

### Grow global LNG leadership

QatarEnergy is a global leader in supplying LNG to a growing number of markets in Asia, Europe and beyond. We are building on this position through major expansion of the North Field. We also aim to maintain our position as one of the LNG producers with lowest cost and lowest emissions intensity. Our new LNG production facilities will employ best-in-class energy efficient technologies and carbon capture facilities. For more information, please refer to the Climate change action chapter of this report.

### Expand downstream and capture synergies

QatarEnergy has a growing portfolio of petrochemical and other downstream assets both in Qatar and internationally. We invest in assets that add further value to and secure offtake of feedstocks produced by our upstream operations, whilst offering synergies with our current operations. Our new assets are built to meet the latest energy efficiency and environmental standards. For more information, please refer to the Climate change action chapter of this report.

To ensure the successful execution of our corporate strategy, we have identified four strategic enablers that play a crucial role in enabling us to achieve our goals, such as committing to safety and sustainability, proactively communicating with our stakeholders, leveraging best practices on asset management and nurturing world-class human resources and capabilities – all of which are critical components that can contribute to the creation of long-term value for our stakeholders.

The success of our corporate strategy is underpinned by our corporate culture and values, which act as guiding principles. By implementing our refreshed corporate strategy, we aim to create long-term value for the State of Qatar, fuel economic progress and increase prosperity in all markets we serve.

### Optimize domestic upstream production

In addition to maximizing recovery from the North Field, QatarEnergy seeks to maintain production from oil producing assets in Qatar through focus on operational excellence and advanced technologies. We actively pursue opportunities to commercialize currently undeveloped resources. For more information on the way we ensure reliability and longevity of our assets, please refer to the Operational responsibility chapter of this report.

### Establish a position in low-carbon businesses

QatarEnergy is well positioned to take advantage of opportunities arising in low-carbon sectors. We will pursue opportunities aligned to our competitive advantages, with a focus on carbon capture and storage, blue ammonia and solar power generation. QatarEnergy's first renewable energy project commenced operations in Qatar in 2022. For more information, please refer to the Climate change action chapter of this report.

### Maximize value from international upstream

QatarEnergy has built an attractive international oil and gas portfolio. We seek to generate value through exploration and development of material assets in emerging frontier basins together with strategic partners. We work actively with host governments in countries where we operate to support the development of sustainable business practices.

**We are all-in on the corporate strategy**

**Noyan Agha**

Head, Planning & Performance, Marketing

One of our key strategic themes which embodies sustainability is to 'Establish a position in low-carbon business'. This message is being clearly cascaded down the organization, which signifies its critical importance to QatarEnergy.

As a QatarEnergy strategy champion, I have witnessed several benefits in helping facilitate the rollout of the Corporate Strategy and Values Refresh program, including company-wide alignment, employee engagement and buy-in and improved organizational culture.

H.E. the President & CEO and the executive leadership team are fully committed to the rollout, demonstrated by the effort to roll out the refreshed strategy to all staff members. This constitutes a significant commitment of company time and resources and a true depiction of management being 'all-in'.

# 2023 corporate milestones

## JAN

**8 January**

Final Investment Decision with Chevron Phillips Chemical Company LLC to build the Ras Laffan Petrochemical Complex - a USD 6 billion integrated olefins and polyethylene facility at Ras Laffan Industrial City

**29 January**

QatarEnergy's first exploration partnership in Lebanon announced

## FEB

**20 February**

QatarEnergy initiated the process to integrate all marketing and related activities which were previously managed by Qatargas

## MAR

**6 March**

Light oil discovery for deepwater exploration well in Namibia

**7 March**

QatarEnergy participated in the ground breaking ceremony for the Golden Triangle Polymers Facility in Orange, Texas

**29 March**

QatarEnergy entered into a farm-in agreement for two offshore exploration licenses in Canada

## APR

**2 April**

QatarEnergy entered into an agreement to acquire working interest in an offshore block in Mauritania

**5 April**

QatarEnergy agreed to hold a share in the Gas Growth Integrated Project in Iraq

# MAY

**9 May**

QatarEnergy entered into two production sharing contracts in Suriname

# JUN

**1 June**

QatarEnergy Trading entered into a long-term LNG sale and purchase agreement with Bangladesh Oil, Gas and Mineral Corporation

**3 June**

QatarEnergy and its joint venture partners signed the production sharing contract for the Agua Marinha block in Brazil

**20 June**

QatarEnergy and China National Petroleum Corporation signed a long term sale and purchase agreement for the delivery of LNG

# JUL

**10 July**

QatarEnergy announced a long-term condensate supply agreement with the Dubai-based ENOC Group

**10-14 July**

QatarEnergy participated in the LNG industry's pre-eminent global event, LNG 2023, in Vancouver, Canada

# SEP

**14 September**

Qatargas rebranded to QatarEnergy LNG

**17-21 September**

QatarEnergy participated in the 24th World Petroleum Congress in Calgary, Canada

**26 September**

QatarEnergy announced the signing of a long-term naphtha supply agreement with Japan-based Marubeni Corporation

**27 September**

QatarEnergy signed an agreement with Korea's HD Hyundai Heavy Industries for the construction of ultra-modern LNG carriers, marking the start of the second phase of QatarEnergy's LNG ship acquisition program

# OCT

**3 October**

North Field Expansion Project ground breaking ceremony conducted at Ras Laffan Industrial City

**4 October**

QatarEnergy and Shell signed two long-term LNG sales and purchase agreements for the supply of LNG from Qatar to the Netherlands

**17 October**

QatarEnergy launched its refreshed corporate strategy and commenced the strategy and values roll-out program for its employees

**18 October**

QatarEnergy was awarded a new exploration block in Egypt, solidifying QatarEnergy's position in Egypt's upstream sector

**23 October**

QatarEnergy and Eni signed a long-term LNG sales and purchase agreement for the supply of LNG from Qatar to Italy

**25-26 October**

QatarEnergy and TotalEnergies signed two long-term LNG sales and purchase agreements for the supply of LNG from Qatar to France

# NOV

**1 November**

QatarEnergy LNG delivered the 1,000th LNG shipment to the South Hook LNG Terminal at Milford Haven, United Kingdom

**1 November**

QatarEnergy conducted its "Mustaqbalna" forum to empower young future Qatari leaders

**4 November**

QatarEnergy signed a partnership agreement with China Petrochemical Corporation for the North Field South expansion project, including a long-term sales and purchase agreement for LNG delivery to China

# DEC

**3 December**

QatarEnergy successfully completed the integration of QatarEnergy LNG's marketing and related activities

**4-6 December**

QatarEnergy participated in the Annual Gulf Petrochemicals and Chemicals Association Forum 2023 in Doha, Qatar

**15 December**

QatarEnergy signed two production sharing contracts for Suriname's offshore Blocks 64 and 65

# Responsible business conduct and governance



At QatarEnergy, our governance framework and practices help ensure we conduct business responsibly and in accordance with our values and applicable regulatory and legal requirements of the State of Qatar and other relevant jurisdictions. We consider responsible business conduct and governance a key enabler for successful delivery of all three pillars of our sustainability strategy (please refer to Our sustainability strategy section of this report).

Recognizing the inseparable link between governance and sustainability principles, our commitment to ethical and transparent governance serves as the bedrock for our sustainable business practices, reinforcing the understanding that effective governance is fundamental to achieving holistic sustainability goals.

# Living our values

Integrity, excellence, collaboration, responsibility, respect and safety are the six values defining who we are and what we stand for. Our Code of Conduct assists us to live our values in everything we do and guides us in our decision making and the actions we take.

Our 19 Foundational Policies define our collective and individual commitments and expectations regarding all areas of our operations. They apply to everyone at QatarEnergy and all those with whom we do business. We aim at only working with organizations who share our standards of business conduct and values. This includes our supply chain partners. In 2023, we took a significant step with the introduction of the Supplier Principles of Conduct, articulating six principles of behavior expected from our business partners who are valued members of our supply chain (please refer to Working with our suppliers section of this report). The six principles directly correlate with our Foundational Policies and sustainability strategy (please refer to Our sustainability strategy section of this report), acting as strong foundations for our collective pursuit of responsible business conduct and long-term sustainability.

During 2023, we continued supporting the translation of our values and policy commitments into tangible actions by engaging in open and constructive dialogues within the organization through initiatives such as Conversation Cafés. These sessions, led by functional leaders, facilitated meaningful discussions on various topics, aiming to create a culture where our values and commitments are not merely communicated but openly discussed and made relevant to everyone within QatarEnergy.

Living our values cannot merely be a senior leadership aspiration or be viewed as a philosophical commitment – it is a way of working that permeates every aspect of our operations, day-to-day interactions, engagements and decisions. We will be able to work in an ethical culture, achieve business resilience and fulfill our commitment to sustainability as we envision it, only if everyone within QatarEnergy and those we do business with continuously and intentionally take part in living our values.

Targeting our workforce, we launched a policy embedding program in 2022. In 2023, as part of this program, we continued to highlight several key policies and initiatives on the topics of Speaking Up, Sustainability and Stakeholder Engagement. We utilized various communication channels such as Ethics Moments, videos and bulletins (which we call The Point) to remind our people of the importance of living our values and integrating our Foundational Policies within their work activities and interactions with external stakeholders.

## Our six values describe the behaviors we aspire to

### Integrity

We place the highest importance on honesty, transparency and doing the right thing, because how we achieve results matters.

### Excellence

We strive for greater efficiency, productivity and performance, knowing we are each accountable for the quality of our work.

### Collaboration

We communicate and value the viewpoints of others, recognizing we all seek to achieve the same QatarEnergy vision.

### Responsibility

We care for the environment, communities and one another, towards responsibly creating a prosperous future.

### Respect

We respect everyone we work with and serve, valuing the contributions our diversity brings.

### Safety

We prioritize safety and care for our people, partners and communities wherever we operate.

## Living our values means we listen and learn

Listening to our employees and obtaining feedback is important to us. In 2023, we initiated our first company-wide Employee Engagement Survey covering a wide range of topics. We achieved a 92% participation rate, and the overall employee engagement score of 84% surpassed the global energy company average of 76%.

The survey covered communication, transparency, leadership effectiveness, teamwork, employee well-being and learning and development. The topics aligned with our core values of integrity, excellence, collaboration, responsibility, respect and safety. We emphasized the anonymity and confidentiality of responses, ensuring a s ecure space for our employees to share their perspectives.

An overwhelming majority of the respondents expressed confidence in QatarEnergy's future, valued the clear direction and felt a sense of pride in working for QatarEnergy. Crucially, the survey confirmed that employees feel valued and respected – fundamental elements of our corporate culture.

The results of the Employee Engagement Survey were also aligned with the insights gathered from our 2022 e-Code of Conduct and subsequent focus group sessions held in 2023. We learned that we still had some work to do, so we created corporate action plans to improve feedback areas. We are committed to cultivate an environment where every person and every voice is not only heard but valued.

# Governance in action

Our governance framework serves as a guiding force, ensuring compliance with our core values and the regulatory landscape of the State of Qatar and the international markets where we operate. By actively incorporating performance evaluations and benchmarking against international best practices, we continually strive to learn and enhance our approach. We employ tangible initiatives and strategies to ensure that our governance is not only a principle but a force in action, steering our organization toward excellence and sustainability.

## Our highest governance body – Board of Directors [4]

QatarEnergy's Board of Directors has a pivotal role in steering our strategic direction. The Board is comprised of seven experienced leaders from diverse sectors within Qatar. Appointed by the Supreme Council for Economic Affairs and Investment, our Board members bring independence and offer a wealth of expertise. The Board meets regularly to discuss a range of issues relevant to QatarEnergy including sustainability-related topics such as climate change progress, health and safety measures and talent management.

## Executive leadership team (ELT)

The ELT at QatarEnergy has a clearly defined mandate from H.E. the President & CEO for oversight of QatarEnergy's business conduct, financial and operational performance, HSE and risk management and informed decision making. The ELT ensures that our organization delivers on our strategies and sustainability goals in alignment with our values. Their regular engagement and oversight mechanisms contribute to a robust decision-making process, reinforcing our commitment to responsible and sustainable business practices.

## Group governance and beyond

We partner with international operators to develop long-term ventures across the value chain. These ventures are an important part of QatarEnergy's portfolio; therefore, so it is critical to drive good governance practices across them.

In 2023, QatarEnergy continued its Group Governance Expectations Program (GGEP) and developed a standard that provides an integrated view of how its Code of Conduct and policies apply to the group companies.

The objective of the standard is to:

1. establish general principles that guide governance of group companies;

2. define a control framework that differentiates group companies based on level of ownership, control, jurisdiction and other factors that directly inform governance requirements; and

3. establish governance, risk and compliance requirements for group companies, including defining expectations on core corporate policies, key governance roles (e.g., company representatives serving on group company boards and committees), conflicts of interest, audit and reporting, delegations of authority and relevant topics.

The standard sets forth governance principles, roles and expectations for the group companies in which QatarEnergy holds an ownership interest and ensures that it is complementing the Asset Management Framework (please refer to Asset Management Framework section of this report). It identified the following five key focus areas for defining expectations across all entities within the QatarEnergy Group:

- Governance
- Risk management
- Compliance
- Health, safety, environment and sustainability
- People and workforce

Irrespective of the unique characteristics of QatarEnergy's Group Companies, it is expected that they will fully comply with all applicable laws and regulations through the adoption of their own governing documents. The purpose of the GGEP is to provide the management and Board of Directors of QatarEnergy's Group Companies (and if relevant, partners who operate one or more Group Companies) with a set of functional expectations for how they should conduct their business. These expectations are categorized based on three levels of maturity: minimum requirements; good industry practices; and global best practices. They have been captured in a checklist of approximately 150 expectations. The framework, approved for pilot in 2024, underscores our commitment to setting and achieving the highest governance standards across all entities within the QatarEnergy Group.

Our commitment to strong governance extends beyond setting standards. We continued engaging our joint ventures (JV) Directors through regular webinars to share best practices and drive QatarEnergy's expectations. We actively strive to strengthen Directors' awareness through engagement programs, fostering a culture of continuous learning and development.

[4]Further information regarding QatarEnergy's Board of Directors can be found on our public website.

## Asset Management Framework

In recognizing the pivotal role that non-operated ventures play within QatarEnergy's extensive portfolio, our strategic focus on asset management and governance becomes paramount. Following a baseline assessment in 2019, we initiated the implementation of an Asset Management Framework to fortify our oversight of major non-operated assets. This framework, aligned with industry best practices, establishes single-point accountability and cross-functional teams responsible for governing our role as shareholders. In 2023, we completed implementation of the framework for all major assets, launching our vision to foster a collaborative Community of Practice and a comprehensive Competence Development Program for QatarEnergy's Asset Management practitioners.

## Business Conduct Committee

The ELT's support for and appointment of the Business Conduct Committee (BCC) illustrates our commitment to executive leadership transparency and ownership. The purpose of the BCC is to provide executive oversight and report to H.E. the President & CEO that the organization and to the extent reasonably possible, its third-party partners, operate in a principled manner and in accordance with applicable laws, regulations and the standards of conduct as outlined in QatarEnergy Code of Conduct and related Foundational Policies.

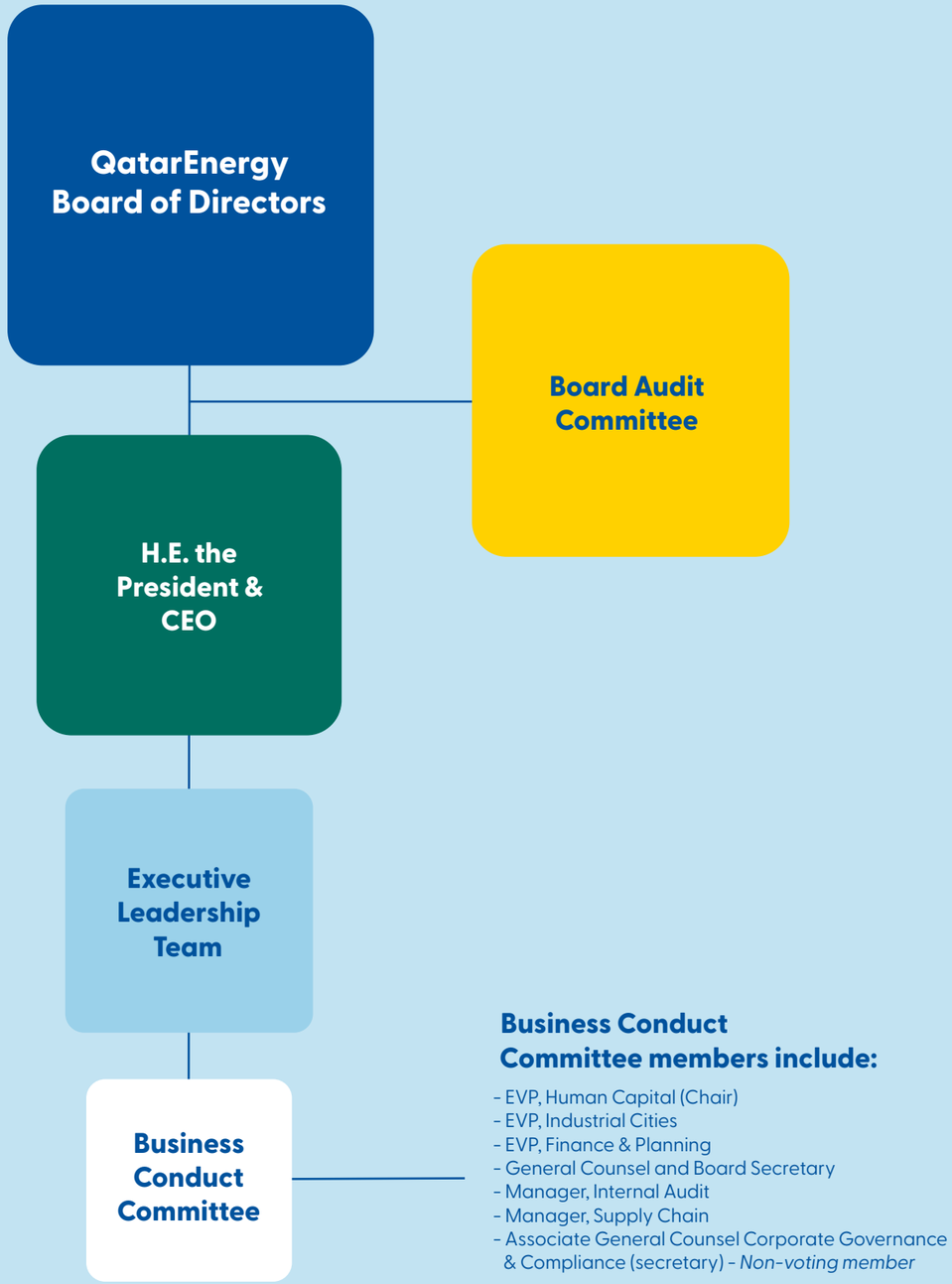
## Business Conduct Committee

The BCC plays an important role in upholding high standards of business conduct and integrity within QatarEnergy. The committee, responsible for setting the appropriate tone from the top, focuses on fostering a culture of integrity, overseeing the annual ethics and compliance program goals and ensuring effective program performance. Key responsibilities include periodic scrutiny of program metrics, overseeing assessments of program effectiveness and ensuring documented evidence of oversight and monitoring.

In 2023, the BCC convened four times with each meeting focusing on crucial initiatives that reflect our commitment to ethical business practices:

- Supplier Principles of Conduct: Finalization, approval and publication of this document which outlines our expectations of our suppliers when they conduct business or provide services on our behalf.
- Annual e-Code Survey Results: Deliberation on the outcomes of the previous year's e-Code survey, which measures employee's perceptions of the ethical conduct of the organization.
- Trading Compliance and Surveillance Project: Considerations in relation to the activities of QatarEnergy Trading.
- Policy Embedding Program 2023: Focused on sustainability, speaking up and stakeholder relations, including suppliers and Tawteen partners (please refer to Creating and growing value section of this report for more details).
- Anti-Fraud Framework: Comprehensive discussions on fortifying measures against fraudulent activities.
- Enhancing Speaking Up Program: Initiatives aimed at fostering a more open environment for employees to voice concerns, addressing factors that may hinder them from doing so.
- Integrity Ambassador Program: Strategic considerations for winding down the Integrity Ambassador program.
- 2024 Compliance Training Program: Planning and discussions on the annual compliance training initiatives.
- Group Compliance Working Group: Collaborative efforts to enhance overall compliance measures.
- 2024 Ethical Leadership Embedding Program: Strategies for embedding ethical leadership principles across QatarEnergy.

## Business Conduct Committee: the reporting structure



## Internal auditing

Our independent Internal Audit team plays a critical role in evaluating and improving the effectiveness of our risk management, control and governance processes. With unrestricted access to QatarEnergy's Board of Directors through the Board Audit Committee, the Internal Audit team is enabled to undertake rigorous evaluation and improvement of QatarEnergy's operations. On an annual basis, the Corporate Internal Audit Manager confirms to the Board Audit Committee that the organizational independence and objectivity of the internal audit activity is in line with the International Professional Practices Framework of the Institute of Internal Auditors.

## Speaking Up

Governed by the QatarEnergy Speaking Up Policy, employees are encouraged to raise concerns or report any actual or suspected breaches of our Code of Conduct and related Foundational Policies. Employees are encouraged to raise their concerns by discussing them directly with their supervisor or other senior leaders of the organization. A separate Speak Up line is also available to all employees. The Speak Up line is managed by QatarEnergy's Internal Audit team who are responsible for receiving the concerns and conducting investigations accordingly.

**Asset Management Training Program**

### Abdulaziz Saud Al Tamimi

Assistant Manager, Offsite & Measurement

The Asset Management Training program that I was lucky to attend last year was an exceptional opportunity to gain insight into best industry practices, JV structures and associated rights and obligations through interactions with experienced JV practitioners. It provided me with a comprehensive understanding of the purpose, benefits and responsibilities of effective asset management, while emphasizing the need to balance value and risks in managing non-operated assets. Additionally, the training program was beneficial to enhance my ability to influence and negotiate in complex JV contexts using an interest-based framework, thereby enabling me as an Asset Manager to manage relationships, diagnose resistance and obtain buy-in from all stakeholders. Ultimately, I have found it very useful to equip Asset Team members with the skills and knowledge needed to effectively manage and create value in joint venture arrangements. Hence, I strongly recommend it to any Asset Team member.



# Managing risks

The landscape for energy providers is undergoing rapid and radical shifts. Our activities and those of our subsidiaries and JVs, encompass the entire spectrum of the oil and gas value chain locally, regionally and internationally. Recognizing the pace of change and the interconnected nature of emerging challenges across such a diverse business environment, we have adopted an agile approach to risk management. We believe a risk-based management approach where risks and opportunities shape our strategic, operational and investment decisions, is instrumental in driving our business forward and ensuring sustainable growth.

Our risk management process takes guidance from the ISO 31000:2018 standard and the Committee of Sponsoring Organizations Enterprise's Risk Management (COSO ERM) framework to ensure a standardized approach is applied to identify, assess and report risks. We had a re-certification audit by TÜV Nord in 2023 for the Quality and Business Continuity Management systems against the requirement of ISO 9001:2015 and ISO 22302: 2019 standards, wherein compliance of our enterprise risk management (ERM) process was successfully verified.

Identifying risks starts with an in-depth understanding of QatarEnergy's strategy and objectives and a comprehensive scanning of internal and external horizons for potential threats that could directly or indirectly affect the achievement of these objectives. Our risks vary across our operations and are categorized under four main categories: strategic, operational, financial and compliance.


*Figure: Illustrative examples of risk areas under each main category*

Risks can be identified at any level within the QatarEnergy organization:

- Bottom-up risks are identified in the course of daily operations across our portfolio of operated assets, JVs and subsidiaries.
- Top-down risks that may affect the QatarEnergy business are identified at the corporate level based on assessment of external trends.
- Risks in specific areas of the business such as HSE, cybersecurity, project management and credit are identified by specialist business functions.

Identified risks are assessed with reference to their potential impacts and likelihood of impact on QatarEnergy and evaluated and prioritized in the Corporate Risk Assessment Matrix as high, medium and low. All risks identified as high risks are subject to more detailed evaluation with stakeholders to 1) develop a more comprehensive understanding of the risk; 2) validate the risk level; and 3) ensure that appropriate measures are established.

Where risk treatment is necessary, actions are designed with the objective of either reducing the impact of a potential risk or reducing the likelihood of the event occurring. Mitigating actions are set using the 'SMART' concept, ensuring adequate resources and clear accountability is allocated.

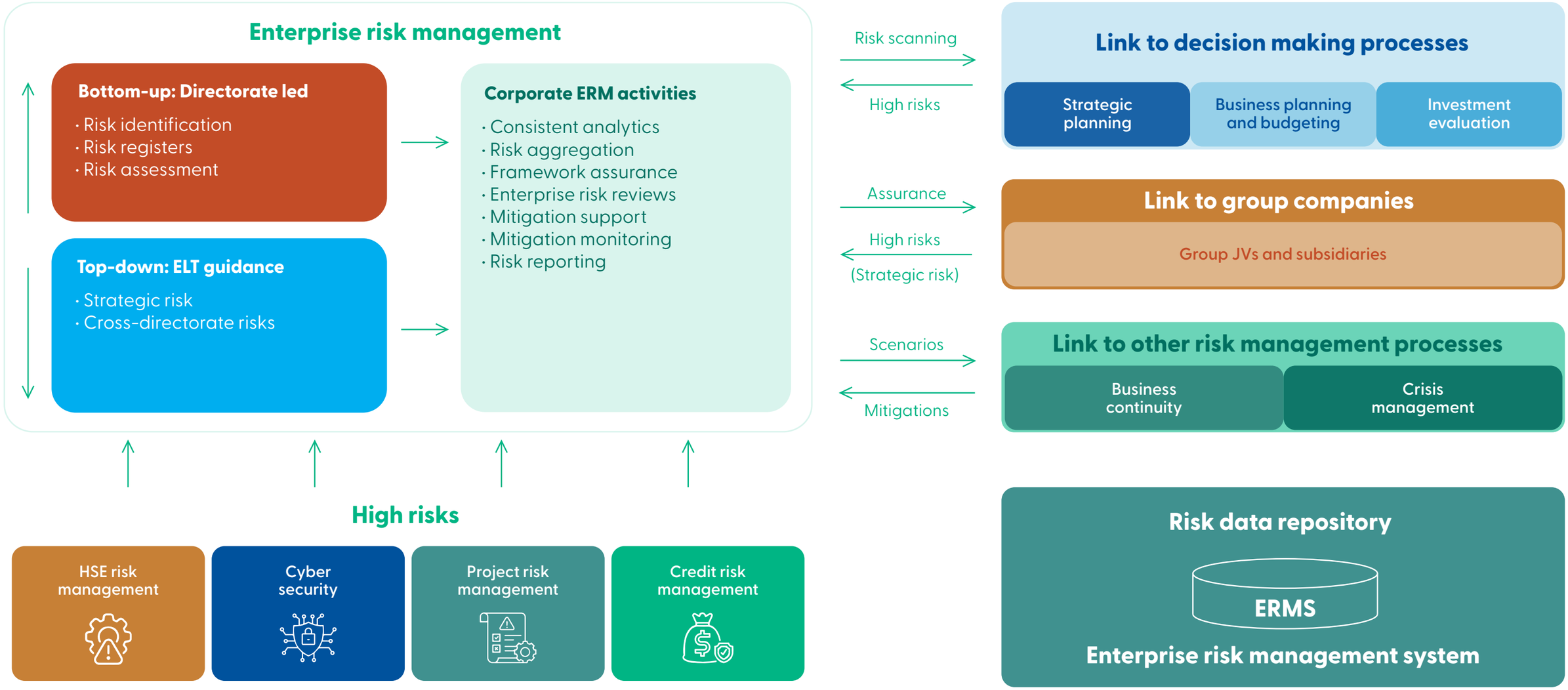



*Figure: QatarEnergy Risk Management Framework*

The ERM landscape includes links to decision making across key business areas such as strategic planning, business planning and budgeting, investment evaluation, business continuity and crisis management. This integrated framework ensures risks are captured throughout all levels of the organization and across all business directorates. All risks are centrally registered using the ERM system (ERMS), to ensure a single-point database for all risks.

QatarEnergy ensures a robust risk governance system through active leadership participation, clear segregation of duties, regular monitoring, ongoing assessments and reporting. Enterprise risks are reported to the ELT and Board Audit Committee, and assurance on the effective functioning of the overall risk management process is also provided.

In addressing risks pertaining to climate change and environmental aspects of our sustainability strategy, our primary focus lies in evaluating the environmental implications of existing and prospective initiatives. We continuously assess risks and opportunities stemming from the evolution of the energy landscape and stakeholder expectations. These measures not only serve to safeguard QatarEnergy against potential threats but also position us to capitalize on emerging opportunities within the sustainability landscape.

## Aligning our strategies and our risks through consultation

With the evolving risk landscape in 2023, QatarEnergy issued a refreshed Corporate Strategy with the objective of ensuring our activities continue to grow and add stakeholder value in a sustainable manner. To support this further, we held a series of strategic risk workshops to re-evaluate our risk landscape for potential threats that could directly or indirectly affect our activities. The purpose of the workshops was to identify emerging risks that could prevent us from achieving our corporate strategic objectives.

The review of risks involved initial consultation with subject matter experts (SMEs) and cross-directorate workshops to review current risks and identify new potential strategic risks. These risks were then benchmarked and evaluated for overall impact and materiality to us at QatarEnergy. This provided a platform for detailed executive level debate where each risk was discussed and evaluated in terms of its potential strategic impacts and likelihood of impact to our organization. This enabled an updated consolidated list of enterprise risks to be agreed, resulting in a matured portfolio of enterprise risks stewarded at the top management level.

**Collaboration enables us to identify risks and opportunities**

**Kaltham Abdulmonem Al-Majid**

Senior Enterprise Risk Management Analyst

I personally found the collaborative approach used during the ERM Strategic Risk workshop to be highly informative and extremely effective. It demonstrated how we, as an organization, can maximize our outputs through tapping into the wealth of knowledge and experience we have in QatarEnergy. Collectively we can build a stronger organization that is better prepared to navigate the complexities of the external environment and ensure we are better placed to succeed and grow our business.

## Adapting to the ever-changing risk landscape

During 2023, an in-depth review of QatarEnergy's compliance framework in relation to commercially sensitive information (CSI) was completed, notably in anticipation of the integration of the marketing and marketing-related activities formerly managed by QatarEnergy LNG. Existing firewalls and safeguards were evaluated (and, to the extent required, upgraded) to ensure QatarEnergy's compliance controls were appropriate to protect CSI and mitigate the risks of inappropriate disclosure or sharing of CSI. Based on the feedback and input received from relevant internal stakeholders, new compliance policies were written to define expectations and provide guidelines to QatarEnergy's employees. New procedures were adopted to outline roles and responsibilities and the specific steps to achieve compliance.

Communication is a key enabler in ensuring compliance and training is a central element to promote responsible behavior. Following the development of new compliance policies and procedures, QatarEnergy crafted and implemented a comprehensive training plan to ensure relevant employees were trained on how to recognize and avoid the risks associated with CSI and on hypotheticals relevant to the energy industry. Antitrust Compliance Essentials training was delivered online to over 1,100 employees, resulting in a 98% completion rate by 31 December 2023. The training provided employees with an understanding of the purpose of antitrust laws and the types of anti-competitive behaviors to keep an eye on. The Antitrust Compliance Essentials training was followed by more targeted CSI training to over 420 employees by 31 December 2023. During these sessions, employees at greater risk in relation to CSI were trained on the safeguards and controls implemented within QatarEnergy to protect CSI and mitigate the risks of inappropriate disclosure or sharing of CSI. QatarEnergy's compliance training is tailored to the company's activities and includes scenarios for discussion and relevant industry-based examples followed with test questions.

**Compliance: a strategic partner contributing to QatarEnergy's growth**

**Julie Vandenbussche**

Senior Counsel, Legal Compliance

Antitrust laws are designed to promote fair competition and prevent anti-competitive practices that have the ability to harm consumers. Evaluating the antitrust risks of strategic options, educating colleagues about behaviors that violate antitrust laws and encouraging them to report conduct if they believe that a violation has occurred are essential to an effective compliance program.

# Our look ahead

Going forward, QatarEnergy is implementing a series of initiatives to build on our responsible business conduct and governance practices.

### Group governance expectations pilot

In 2024, QatarEnergy will pilot its Group Governance Expectations Program. The findings of this pilot program will be presented to the ELT and Steering Committee with the intention of a launch to all QatarEnergy Group Companies in the future.

### Director forum

In 2024, QatarEnergy plans to convene a director forum, bringing together our directors to foster a community of practice. This event is part of our ongoing Director Engagement Program, emphasizing our commitment to building, embedding and sustaining the capabilities of our JV directors.

### Board Secretaries program

A comprehensive training program for board secretaries in partnership with the Institute of Directors (UK based) is set for 2024, to be attended by 50 individuals from QatarEnergy and its group companies. The program will cover various aspects of effective board governance, legal compliance and facilitation skills for transparent and productive board meetings.

### Enhancing empowerment and psychological safety

A task force will be established in 2024, to enhance psychological safety and employee empowerment in the workplace, affirming our commitment to a supportive and inclusive work environment.

### Taking awareness building to the next level

In 2024, our focus will shift from policy embedding to raising awareness on ethical business conduct. Each quarter, we will focus on raising awareness in crucial subjects such as safety, fraud prevention, confidentiality and data protection. The main focus of this initiative will be about Protecting Our Business; Protecting Ourselves.

# Climate change action


## Global and national action

## Energy sector emissions landscape in Qatar

## Our approach to mitigating the impacts of climate change

## Our look ahead

Climate change is a societal challenge that requires shared global action. As an energy producer, we recognize the imperative to address climate and environmental concerns, and the critical role that we play, whilst balancing society's need for accessible, secure and affordable supplies of energy.

# Global and national action

The impact of human contributions to climate change is well established with science. Given the need for shared global action, a multitude of stakeholders including governments, international bodies and organizations are undertaking and prioritizing initiatives to collectively mitigate GHG emissions and consequently the impact of the changing climate.

The Paris Agreement, with efforts to limit global warming to well below 2 degrees Celsius above pre-industrial levels, is a pivotal framework for collective action, with commitments from most countries through the setting of national-level emission reduction targets. The State of Qatar, as a signatory of the Paris Agreement, has a national ambition to reduce GHG emissions by 25% relative to a business-as-usual case by 2030 compared to the 2019 base year. This target is embedded within NDS 3.

Governments and organizations around the world are pursuing different approaches to climate mitigation tailored to their specific circumstances. Limiting global warming and the effects of climate change can and will involve multiple transition pathways, each contributing to collective global action. Yet, it is essential that the transition to lower-carbon energy sources is balanced with society's continued demand for access to secure, affordable and reliable energy supplies. The UN SDGs emphasize that sustainable development and prosperity of people and the planet require collectively acting on environmental (including climate change), social and economic challenges. Hence, climate change cannot be approached in isolation and must be integrated with efforts related to energy access and security, economic and social development and prosperity, as well as overall environmental preservation.

The State of Qatar is pursuing its own sustainable development and transition pathway, defined within NCCAP. This national framework is based on targeting emissions from various sectors, including energy sector emissions. It focuses on cooperation between stakeholders, including QatarEnergy, to collectively address climate change, whilst advancing social and economic development.

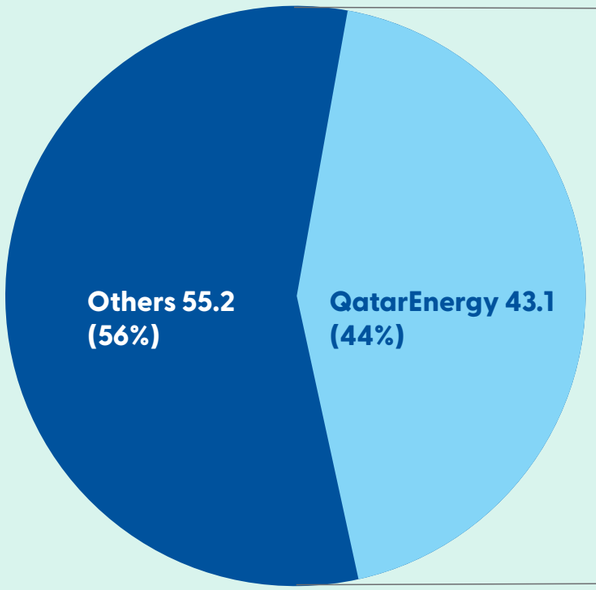
QatarEnergy

# Energy sector emissions landscape in Qatar

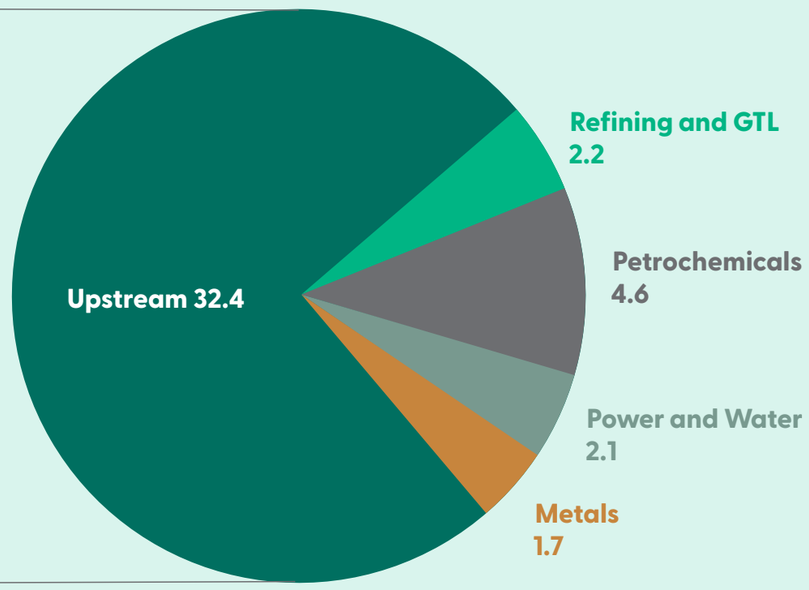
The energy sector is the leading economic sector within the State of Qatar and consequently, accounts for the greatest proportion of total national emissions. The figure below illustrates direct (Scope 1) GHG emissions in 2023 from the energy sector in Qatar, comprising upstream, refining and GTL, petrochemicals, power and water and metals segments. QatarEnergy's activities (on an equity basis) accounted for 44% of Qatar's energy sector GHG emissions. These emissions originated from more than 20 entities, including assets solely owned and operated by QatarEnergy, as well as assets owned in partnership with our JV partners. For the detailed breakdown of our Scope 1 and 2 GHG emissions please refer to Appendix E of this report.

Scope 1 and 2 GHG emissions from all operating companies within the energy sector in Qatar for the calendar year 2023 were verified to a reasonable level of assurance by an independent third-party verifier against EU ETS MRR, the Intergovernmental Panel on Climate Change (IPCC) Guidelines, as well as our own internal procedures.

## 2023 direct GHG emissions (million metric tons $CO_2e$)




Total direct GHG emissions from the energy sector in the State of Qatar (98.3 million metric tons $CO_2e$)




QatarEnergy equity share of Scope 1 GHG emissions in Qatar (43.1 million metric tons $CO_2e$)

## Our 2023 emissions performance

Our Scope 1 GHG emissions on operated basis were 5.9 million metric tons $CO_2e$ in 2023 compared to 5.4 million metric tons in 2022, in part due to higher flaring at our offshore assets in 2023. We continue working on implementing mitigation measures to reduce our flaring (please refer to Flare reduction section of this report). Scope 2 GHG emissions in 2023 were 0.66 million metric tons $CO_2e$ compared to 0.62 million metric tons $CO_2e$ in 2022. Our Scope 2 emissions were calculated using the location-based method.

Our Scope 1 GHG emissions on equity basis (including international assets) remained relatively flat in 2023 at 43.9 million metric tons $CO_2e$ compared to 43.3 million metric tons in 2022. Scope 2 GHG emissions in 2023 were 2.2 million metric tons $CO_2e$, same as in 2022.

# Our approach to mitigating the impacts of climate change

QatarEnergy has an important role, both locally within the State of Qatar and at an international level, in GHG emissions mitigation and consequently the impact of climate change. The transition to a lower-emitting energy sources pathway focuses not only on climate change, but also puts an emphasis on collective environmental, social and economic sustainability. This collective approach to sustainability enables us to focus on solutions which harmonize sustainable practices in producing energy, whilst meeting growing energy needs both locally and globally.

We are proactively working on reducing the GHG intensity from our upstream (including LNG facilities) and downstream assets. Furthermore, we are supporting the development of lower-carbon power generation in Qatar. Diversifying our energy mix supports curbing GHG emissions and ensures that the LNG we export is produced with a lower-carbon intensity.

On an international level, QatarEnergy is supporting energy transition pathways of other governments and organizations. By supplying LNG produced with a lower-carbon intensity, we help meet current and future energy demand while supporting customers to replace high-carbon intensity fuels with a cleaner alternative.

Our commitment to climate action is an integral part of our core values and identity. It is embedded within our Corporate Strategy (please refer to Vision and corporate strategy section of this report) and Sustainability Strategy (please refer to Our sustainability strategy section of this report). Our approach to climate change comprises five broad categories of action:

**Consolidate:** Global sustainability

Our commitment is to supply the world with LNG produced with a lower-carbon intensity. Our role not only supports emissions mitigation by displacement of higher-carbon intensity fuels, but also ensures access to secure and affordable energy.

**Curb:** Reducing our carbon footprint

We focus on undertaking measures to reduce emissions and enhance energy efficiency across our assets and operations. For future projects, we focus on employing best-in-class and energy-efficient technologies, to minimize future operational emissions.

**Create:** Innovating for a sustainable future

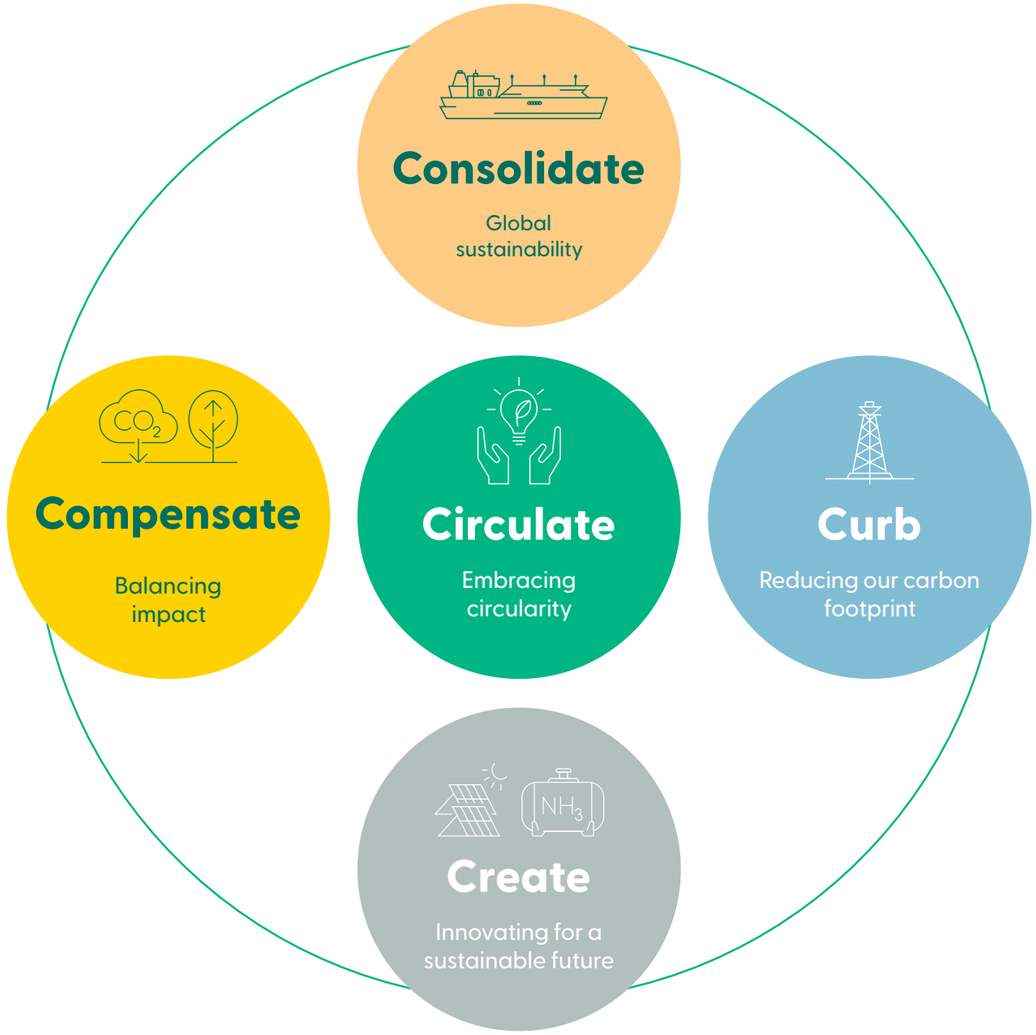
In line with our corporate strategy, we are establishing a position in the low-carbon energy business by increasingly developing a renewable energy portfolio and producing lower-carbon products (e.g., lower-carbon ammonia).

**Compensate:** Balancing impact

We are developing carbon capture capacity and infrastructure to capture, utilize and store $CO_2$ from our operations.

**Circulate:** Embracing circularity

We are proactively minimizing waste production and optimizing resource use. Circularity will enable us to recycle and repurpose waste and avoid additional emissions.



## Our targets

To support our approach on climate change action, we have defined a number of short-to-medium term climate change targets focusing on reducing the carbon intensity of our upstream and LNG operations; improving operational excellence through energy efficiency, reduced flaring and methane intensity reduction; as well as growing our low-carbon business activities with renewables and CCUS capacity targets.

| | 2025 / 2030 targets | 2035 targets | Our actions |
|---|---|---|---|
| **Reducing emissions intensity** | **15%**<br>reduction in upstream carbon intensity (Scope 1 + 2) by 2030* | **25%**<br>reduction in upstream carbon intensity (Scope 1 + 2) by 2035* | Curb, Circulate, Compensate |
| | **25%**<br>reduction in LNG facilities carbon intensity (Scope 1 + 2) by 2030* | **35%**<br>reduction in LNG facilities carbon intensity (Scope 1 + 2) by 2035* | Curb, Create, Circulate, Compensate |
| **Targeting operational excellence** | **0.2%**<br>Target weighted methane intensity by 2025 | | Curb |
| | **Zero**<br>Target routine flaring by 2030 | | Curb, Circulate |
| | **150**<br>MMSCFD target gas saving due to energy efficiency by 2030* | | Curb, Circulate |
| **Lowering carbon footprint with capacity additions** | **2 – 4**<br>GW target solar capacity by 2030 | **> 5**<br>GW Target solar capacity by 2035 | Create |
| | **7 – 9**<br>MMTPA target CCUS capacity by 2030 | **> 11**<br>MMTPA Target CCUS capacity by 2035 | Circulate, Compensate |

* Against baseline year 2013

## Taking action

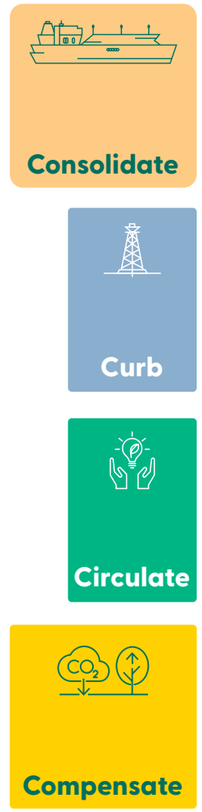
Our near-term climate action strategy comprises the following:

- Growing our LNG portfolio whilst reducing emissions intensities of our LNG facilities
- Reducing methane emissions and flaring from our facilities
- Improving energy efficiency across operations
- Developing low-carbon energy via renewables through solar deployment
- Developing lower-carbon energy through producing lower-carbon ammonia
- Deploying carbon capture, utilization and storage

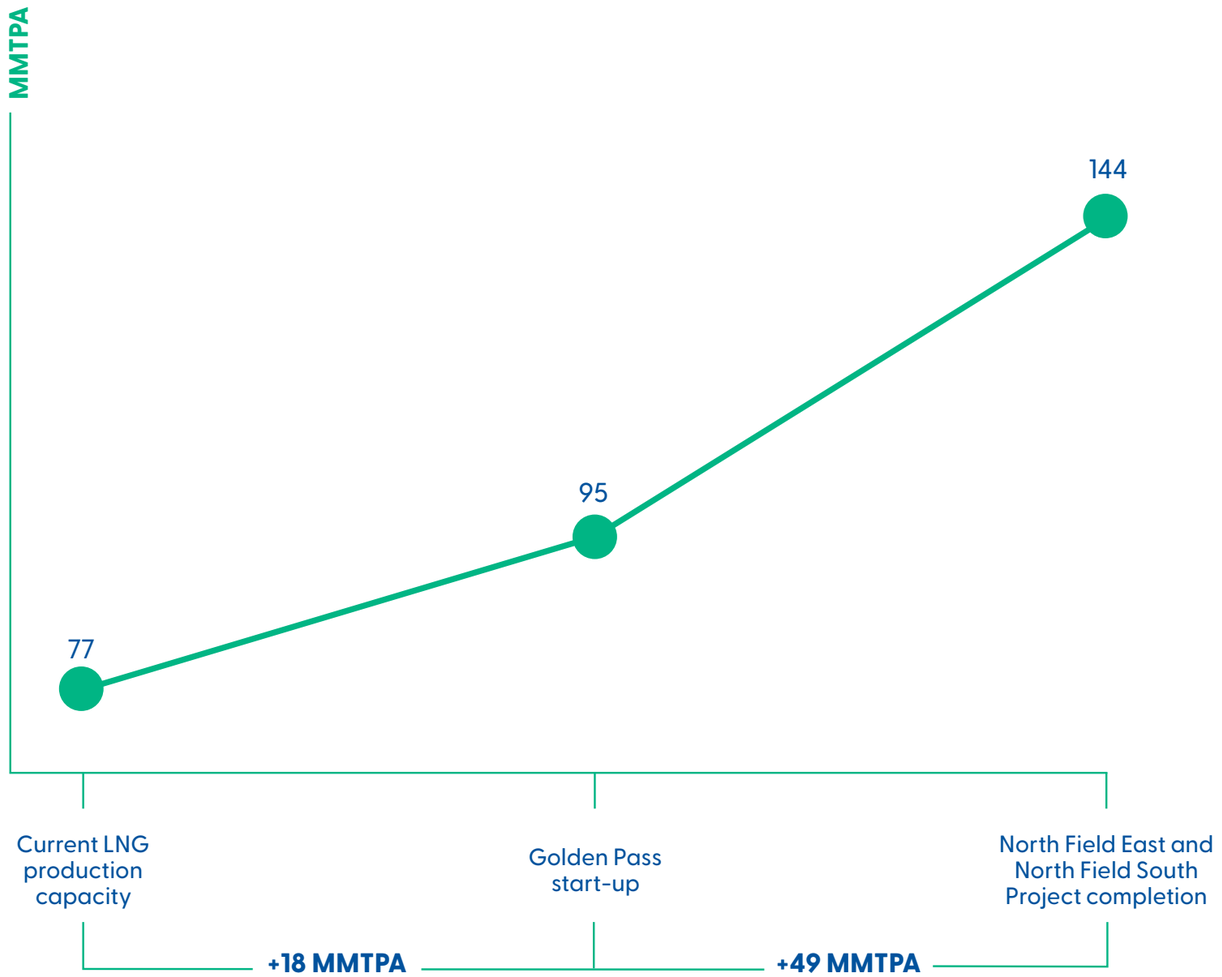

## Growing our LNG portfolio at reduced emissions intensity

QatarEnergy is a leader in the global LNG market. By supplying the world with LNG, we play an important role in providing a lower-carbon-emitting energy source that contributes significantly to global efforts to reduce GHG emissions.

By 2029, our global LNG production capacity will increase to 144 MMTPA, reinforcing our commitment to being a premier provider of cleaner and lower-carbon energy. New LNG production facilities will employ best-in-class energy efficient technologies and carbon capture facilities, lowering the carbon intensity associated with QatarEnergy's LNG production. In conjunction, we continue to take steps to reduce emissions and flaring, as well as improve energy usage at the existing LNG facilities.




### LNG production capacity, MMTPA[5]



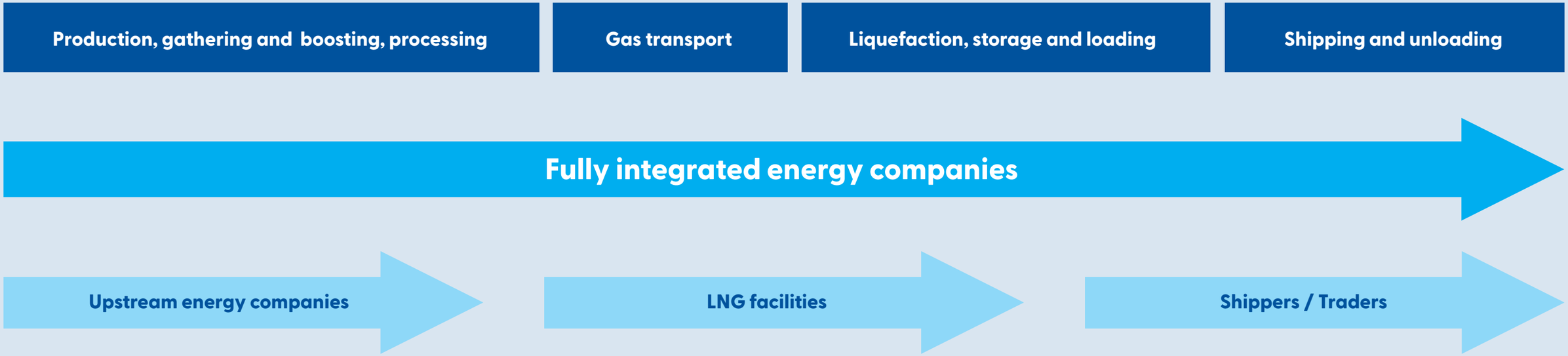

[5]In February 2024, QatarEnergy has announced that it is proceeding with a new LNG expansion project, the "North Field West" project, which will raise the State of Qatar's LNG production capacity by additional 16 MMTPA by 2030. These figures are not included in the chart above.

## Statement of Greenhouse Gas Emissions (SGE) Methodology[6]

QatarEnergy ensures that all cargo deliveries to Pavilion Energy Trade & Supply (PETS) are supported with GHG emissions reporting, based on the SGE Methodology, developed for the LNG industry. The SGE Methodology is one of the first published methodologies and was jointly developed by QatarEnergy, PETS and Chevron to quantify the GHG emissions associated with a delivered LNG cargo. It provides a monitoring, reporting and verification methodology which complements common GHG reporting processes to deliver a consistent, verified SGE for each delivered LNG cargo. The SGE is intended for industry-wide adoption and is applicable across the LNG value chain – from wellhead to delivery point.

QatarEnergy started producing SGE certificates in January 2023. They are verified by a third-party verifier and delivered to the satisfaction of the customers. Setting up of a process for computing and verifying the GHGs as per the set methodology helped customers offset equivalent carbon credits through various sources. In 2023, QatarEnergy delivered 15 LNG cargoes with SGE certificates to PETS.

The SGE Methodology can be used by integrated producers and operators of individual segments that contribute to the value chain GHG footprint, as depicted below:




[6]For further information, please refer to the SGE Methodology available on our public website.

# Reducing emissions from our facilities

## Methane emissions reduction

Methane emissions mitigation is a core focus of QatarEnergy. We are a member of the Oil and Gas Methane Partnership (OGMP 2.0) and the Methane Guiding Principles (MGP), as well as a signatory of the Oil and Gas Climate Initiative's (OGCI's) Aiming for Zero methane emissions initiative. We are fully committed to achieving near-zero methane emissions across all our operations.

QatarEnergy reports its methane emissions in accordance with OGMP 2.0 framework. In 2023, we submitted methane emissions data to the United Nations Environment Programme (UNEP), the facilitator and organizer of OGMP 2.0, covering all operated and non-operated assets in scope. All of QatarEnergy's assets are required to undergo comprehensive assessments to comply with emissions reporting requirements. In addition, a robust monitoring, reporting and verification (MRV) framework is in place for all our assets to ensure accurate measuring and reporting of our methane emissions and verification by an approved independent third-party verifier. In 2023, QatarEnergy maintained its OGMP 2.0 Gold Standard pathway for the third year running. We are actively working towards achieving OGMP 2.0 Level 4/5 (Gold Standard) as part of our commitment to achieving overall methane emissions reduction and demonstrating transparency.

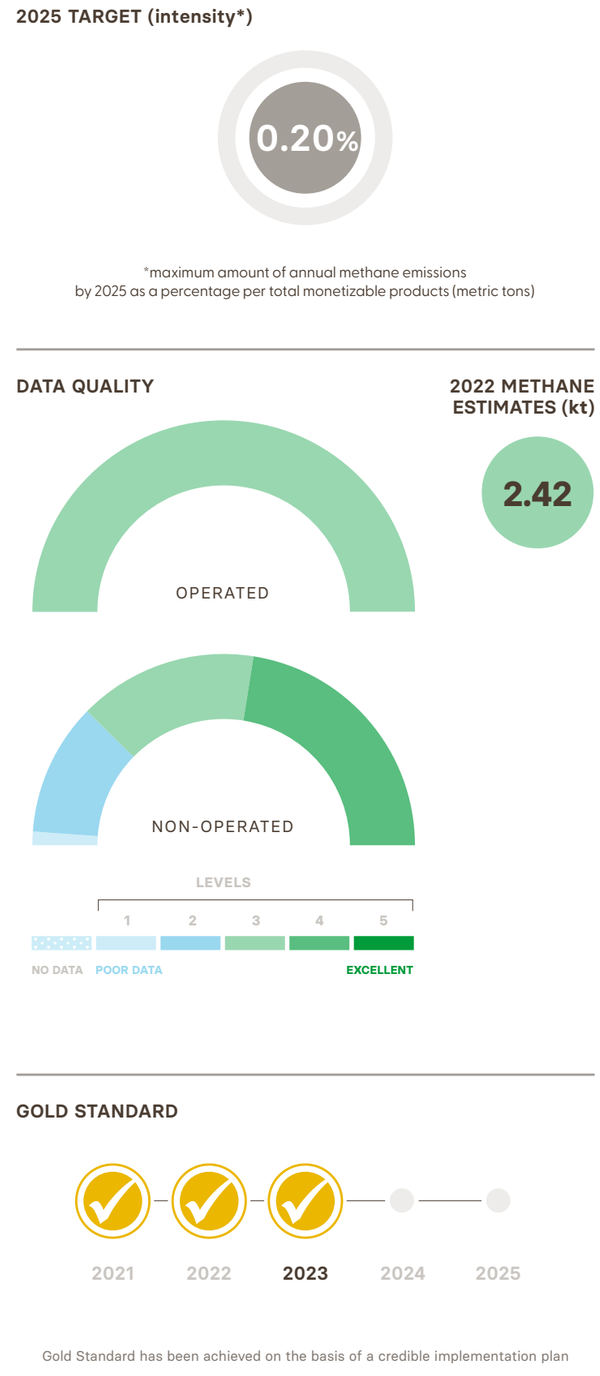
To minimize methane emissions on the path to near-zero, QatarEnergy targets all sources of emissions including fugitives, venting, flaring and combustion. We have implemented a leak detection and repair (LDAR) program across all assets, adopted advanced monitoring and measurement technologies and are continually improving methane leak detection processes. In 2023, we monitored and examined 600,000 components across our operated facilities and employed a rigorous framework to address and repair the identified leaks.

QatarEnergy is demonstrating leadership and actively engaging with various stakeholders, collaborating with industry peers and sharing and learning from best practices. As an example, we are the hosts of the 2024 MGP RoundTable in Qatar to advance global methane reduction. Separately, we have been working closely with our partners on the deployment of advanced and innovative technologies for methane detection including drones, satellites, advanced cameras and sensors.

The methane intensity of the LNG facilities in 2023 was 0.004%, which is well below 0.2%.

We aim to further improve the measuring and monitoring of methane emissions at our assets and take proactive action to reduce and keep emissions in line with our target of below 0.2% weighted methane intensity by 2025.

Curb




Source: UNEP's International Methane Emissions Observatory 2023 report

## Satellite measurements of methane at QatarEnergy LNG

Satellite-based methane detection using infrared technology has emerged as a powerful tool for conducting large-scale emissions monitoring across vast geographical areas. Satellites equipped with hyperspectral sensors can detect methane emissions from natural gas facilities, pipelines and other infrastructure with unparalleled spatial coverage and temporal resolution. By capturing methane plumes from space, satellite measurements provide valuable insights into global methane emissions trends, facilitating international collaboration and policy development.

QatarEnergy LNG has been using the services of a satellite-based methane monitoring provider since the beginning of 2023, for its onshore and offshore facilities. By utilizing advanced sensors on board satellites, methane leaks can be detected with remarkable accuracy (i.e. 100 kg/h), enabling prompt identification and mitigation of potential environmental risks.

Useful data output has been obtained in 2023 providing timely and resourceful data-sets. The integration of satellite technology into methane emission monitoring represents a significant stride towards achieving environmental sustainability in QatarEnergy LNG. By leveraging the capabilities of satellite-based monitoring systems, QatarEnergy's entities can proactively identify and address emission hotspots, mitigate environmental risks and uphold their commitment to responsible energy production.

QatarEnergy LNG is using a multi-dimensional approach to address methane emissions monitoring. Current assessments show a methane intensity below 0.01% (total monetizable products used as denominator) indicating that assets are already near-zero. It can also be noted that >50% of the assets' emissions are currently at OGMP 2.0 Level 4 reporting. QatarEnergy LNG believes in the expectations of platforms such as OGMP 2.0 to constantly evaluate and monitor its emissions to be able to reach the Gold Standard, thus reinforcing QatarEnergy LNG's commitment towards mitigating methane emissions from its assets.

**Reinforcing our commitment to near zero methane emissions**

**Hilal Saad Al Mohannadi**

Environmental Affairs and Regulatory Manager, QatarEnergy LNG

QatarEnergy LNG, as one of the world's largest LNG producers, is committed to implementing advanced measurement and monitoring technologies and enhanced reporting requirements to achieve Oil and Gas Methane Partnership (OGMP) 2.0 Gold Standard and our goal of near zero methane emissions by 2030.

Curb | Circulate

# Flare reduction

QatarEnergy is a partner of the World Bank's Global Flaring and Methane Reduction Partnership (GFMR). Reducing flaring to a minimum in the short term and eliminating routine flaring by 2030 is a priority for us. QatarEnergy has worked to reduce flaring for over a decade through initiatives such as the flaring mitigation program at RLIC in 2012 and the LNG loading facilities Jetty boil-off gas (JBOG) project in 2014.

We actively promote the identification of flaring hotspots and sources at our assets, including JVs. We also encourage assets to set operational targets and undertake gas flaring reduction projects. This has enabled us to reduce gas flaring at our upstream (including LNG), GTL and petrochemical assets. Key highlights from 2023 include:

- The ongoing Flare Reduction Project (FRP) across all LNG assets at RLIC. We continue to target flaring during both planned and unplanned shutdown events. In 2023, this initiative successfully redirected approximately 2.4 MMSCFD of flared gas to operational trains, contributing towards gas savings and plant reliability and helping to reduce flaring intensity of our LNG operations by around 0.02%.
- QatarEnergy LNG is also planning to implement a project to eliminate off-gas flaring from sour water degassers at its assets. By recycling captured gas back to the inlet facilities with the installation of a new booster compressor, the project anticipates a reduction of approximately 1 MMSCFD in flaring.
- At QAFAC, the execution of the first phase of the flare gas reduction plan has resulted in a continuous saving of 11 MMSCFD.
- Internationally, TEPC's average flaring reduction by 18.5% in the Republic of the Congo has been achieved through effective flaring management. Strategic initiatives like rerouting emissions and optimizing fuel gas consumption are expected to be implemented in 2024 which will further help to reduce the flaring emissions.

Flaring intensity of LNG facilities in 2023 was 0.38%, which represents a reduction of more than 20% since 2020.

Going forward, we will continue to study and assess flare minimization opportunities and implement them at our assets.

# Energy efficiency enhancement

Asset management best practices are key enablers of our corporate strategy. We aim to improve energy efficiency in both operated and non-operated assets by optimizing the performance of our assets. QatarEnergy is implementing an extensive energy efficiency improvement program across upstream (including LNG), refining, GTL and petrochemical assets.

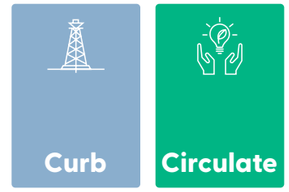
The energy efficiency improvement program covers two aspects: (1) monitoring and taking operational action and (2) implementing energy saving initiatives. When monitoring, we compare the assets' quarterly energy consumption and benchmark it against a baseline case representing the design conditions of the asset. Our assets also have key performance indicators (KPIs) in place to minimize the energy consumption gap between plant operation and the baseline design case. In addition, we implement initiatives which either lead to savings of fuel gas and/or feed gas to the assets.

Key energy efficiency highlights from some assets in 2023:

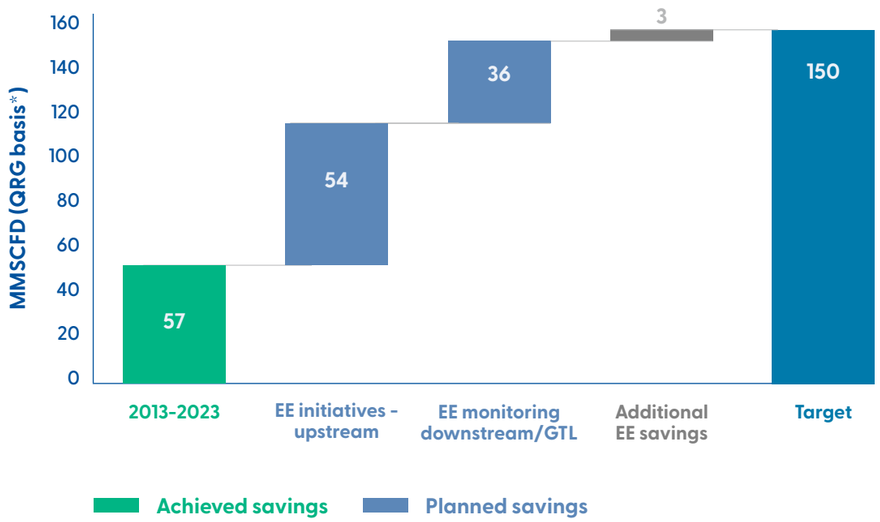
- In 2023, QatarEnergy LNG completed concept selection studies for five identified opportunities. The project aimed to achieve fuel gas savings through a range of initiatives, including the installation of hydraulic turbines, rebundling of compressors, recycling excess fuel gas to inlet facilities and redirecting acid gas to inlet facilities after mercaptan removal. Pre-FEED assessments indicated an anticipated fuel gas saving of approximately 54 MMSCFD.
- To improve energy efficiency at Dolphin Energy Limited (DEL), initiatives considered included LED lighting, solar power systems and power generation optimization. In 2017, DEL installed high-pressure steam superheating coils in one of the sulfur recovery units (SRU), which resulted in optimized power generation, a reduction in fuel gas demand and a more efficient use of imported power. By 2025, DEL plans to complete the installation of high-pressure steam superheating coils at the other SRU, which will lead to further optimization and gas savings.
- Qatalum is also actively pursuing improvements in energy generation through the procurement of an advanced gas path (AGP) upgrade for its gas turbines. This upgrade enhances efficiency, flexibility and stability at Qatalum's captive power plant, contributing to a reduction in $CO_2$ emissions. Three out of four gas turbines have already undergone the AGP upgrade, with the final turbine being upgraded in 2024. These energy efficiency initiatives have resulted in a reduction of Qatalum's energy intensity by 1.1% in 2023 compared to 2022.

The energy efficiency improvement program is closely tied to our target of achieving gas savings of 150 MMSCFD by 2030. In 2023, through energy efficiency, a year-on-year gas saving of 57 MMSCFD was achieved since 2013, which corresponds to a year-on-year reduction in $CO_2$ emissions of 1.2 MMTPA. The total savings in 2023 have decreased compared to 2022 (59 MMSCFD) mainly due to performance issues with steam recovery systems that several assets experienced in 2023. The work is ongoing to improve the performance of these systems.

We have updated the estimated energy savings from future energy efficiency initiatives following the completion of Concept and Pre-FEED project stage gates. We are investigating additional initiatives that would enable us to meet our 2030 target.




## Energy savings 2013-2030




*Normalized figures based on heating value @1000 Btu/Scf known as "Qatar Reference Gas" (QRG).

**Energy efficiency is a key element for QatarEnergy's strategy and sustainable development**

**Edrwin Guillermo Fracachan Barrios**

Process Engineer, Onshore Facilities

As a global energy producer, we recognize the importance of prioritizing energy efficiency across our assets. It is essential not only for the optimization of nation's resources but also for the reduction of emissions, thereby mitigating our environmental footprint. By committing to energy efficiency, we bolster our strategic initiatives to emerge as a player in the low-carbon business sector, elevating our competitive edge while simultaneously championing sustainability. It is truly an honor to play a part, alongside our dedicated team, in enhancing energy efficiency within QatarEnergy.

## NGL-5 plant

**Background on NGL-5**
Associated gas from offshore fields (Idd El Shargi, Maydan Mahzem and Bul Hanine) and Dukhan field is currently processed at the existing facilities namely Fahahil Stripping Plant (FSP), NGL-1 and QAPCO Ethane Recovery Unit (ERU) which have been in operation for over 40 years. Considering the age, equipment integrity and obsolescence issues at the FSP, NGL-1 and QAPCO ERU plants, a detailed assessment was performed by all relevant QatarEnergy directorates. Based on the assessment, a decision was made to build a new NGL plant (NGL-5) and decommission the existing FSP, NGL-1 and QAPCO ERU facilities.

The NGL-5 plant will have a nameplate capacity of 350 million standard cubic feet per day (MMSCFD) and will produce sales gas, ethane, propane, butane, paraffinic naphtha and liquid sulfur.

The NGL-5 project is expected to be completed in 2028. Presently, the project is in Front-End Engineering and Design (FEED) phase and will include a number of features to mitigate and minimize its climate and environmental impact.

**$CO_2$ capture and storage**
The $CO_2$-rich off-gas will be compressed and injected at a well located in the MIC area. The amount of $CO_2$ sequestered is expected to be between 900-1,250 metric tons per day.

**Zero flaring**
The NGL-5 plant is designed to operate with zero flaring and will implement state-of-the-art technologies to reduce fugitive emissions.

**High energy efficiency**
The design will ensure high energy efficiency and all compressors will be driven by electric motors.

**Blowdown water recovery**
Cooling tower and boiler blowdown from the NGL-5 plant will be treated and reused, with a target recovery of 85%.

**Higher sulfur recovery efficiency**
The NGL-5 plant's sulfur recovery efficiency is expected to exceed 99.9%.

## Pioneering petrochemicals production

Ras Laffan Petrochemicals Complex showcases our commitment to sustainable operations. The project design incorporates various sustainability concepts. The complex is designed for responsible operation and features minimal routine flaring, near zero liquid discharge, ultra-low NOx burners, selective catalytic reduction (SCR) for the boilers and furnaces for post-combustion emission control and waste and off-spec material recycling.

The facility is designed with modern, energy-saving technology and uses ethane feedstock. This leads to lower GHG emissions compared to similar global facilities. This visionary project underscores the commitment of QatarEnergy in advancing sustainable and innovative solutions for polymers production.

High density polyethylene (HDPE) is the main product produced at the complex. HDPE is used as feedstock to produce a wide variety of goods, including many products that will play an essential role in the energy transition.



# Developing lower-carbon energy

## Solar power

QatarEnergy's refreshed corporate strategy sets the direction for growth and aims to establish a position in low-carbon businesses. Given the State of Qatar's abundant sunshine, one key focus in the area of renewable energy solutions is solar power.

QatarEnergy is leading the State's NDS 3 aspirations to reach four gigawatts (GW) of renewables capacity by 2030 and plays a pivotal role in advancing the implementation of the Qatar National Renewable Energy Strategy. This strategy aims to increase renewables capacity share to approximately 20% of Qatar's total power generation capacity.

As part of our commitment to expanding renewables generation capacity, we have launched discussions with relevant stakeholders in the context of the State of Qatar's contemplated renewable energy attributes certification program. This certification will verify and document the environmental attributes associated with renewable energy generation. It will provide assurance to stakeholders regarding the sustainability and environmental benefits of renewable energy projects in Qatar.

QatarEnergy's first renewable energy project commenced operations in Qatar in 2022. The Al Kharsaah solar photovoltaic (PV) power plant has a total installed capacity of 800 megawatts-peak (MWp). The plant can supply approximately 10% of Qatar's peak power consumption and over its lifetime will help to avoid around 26 million metric tons of $CO_2$ emissions.

## Avoiding emissions whilst minimizing the impact on environment and habitats

In 2023, Al Kharsaah solar power plant achieved 1 million MWh of cumulative power production since the start of operations in mid 2022. In addition to avoiding emissions, the project is designed to also minimize its environmental impact. The plant uses bifacial panels, which generate an additional 10% electric power. The use of half-cut bifacial panels allowed for land use optimization and consequently minimized the area for local habitats relocation. We undertook proactive measures to protect the wildlife (lizards and snakes), which were impacted by the project and had to be relocated to similar habitats.

Separately, the plant was designed to use a water-based cleaning system to clean the dust and sand off solar panel modules. To protect water resources, we switched half of the solar panel modules to dry cleaning in 2023 and are working towards implementation of 100% dry cleaning in 2024.

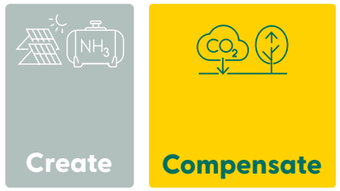
Create

QatarEnergy

In 2023, QatarEnergy awarded the engineering, procurement and construction (EPC) contract for the Industrial Cities Solar Power (IC Solar project). This project involves constructing a 417 MW PV power plant in MIC and a 458 MW PV power plant in RLIC. Both plants are expected to commence electricity generation by the end of 2024. Coupled with the Al Kharsaah solar PV power plant, the IC Solar project will increase Qatar's renewable energy generation capacity to 1.675 GW. The IC Solar project will supply renewable power to QatarEnergy facilities and will support our target of reducing the GHG intensity of our operations. The project is set to avoid over 28 million metric tons of $CO_2$ emissions over its lifetime.

In addition to power-plant-scale solar projects, we are also deploying small-scale independent solar capacity. We have completed the installation of rooftop solar panels at QatarEnergy's corporate headquarters. Dolphin Energy Limited (DEL) have also installed a pilot solar power system, which is used to power some plant buildings. Similarly, Al Khaleej Gas has solar panels to power its workshop at Halul Island. We are also contributing to the installation of a PV system in the National Museum of Qatar and are evaluating the installation of further small-scale solar projects at our assets.

## Producing lower-carbon ammonia




By producing lower-carbon ammonia, QatarEnergy aims to contribute to the next generation of energy carriers and lower-carbon fuels, which will play an important role in the global energy transition, especially for the harder-to-abate end use sectors. The QAFCO-7 project, currently under construction, will be the industry's first world-scale and largest blue ammonia project, with an integrated integrated CCS facility. We expect to commence operations in 2026 and produce 1.2 MMTPA of lower-carbon "blue" ammonia. The integrated CCS facility will have a capacity of 1.5 MMTPA. We are also assessing requirements related to certification for this ammonia production.

In 2023, the project's EPC continued, advancing the development of the project to around 30%. The drilling of appraisal wells also began, to identify the number of injection wells required for $CO_2$ capture and storage.

## Sustainability in buildings and infrastructure projects

Our commitment to sustainable operations is not limited to our oil and gas facilities. In line with our Sustainability Policy, we are committed to sustainable design and operations across all facilities in QatarEnergy, including buildings and infrastructure.

In 2023, we had a number of infrastructure projects in the design and/or execution phase with extensive sustainable design features including energy efficiency. Examples include:

- New port control tower in RLIC
- Ras Laffan Village in RLIC
- Laboratory building at QatarEnergy Refinery in MIC
- Centralized chemicals warehouse in MIC
- QatarEnergy Wellness Centre in Doha
- Secondary school in Dukhan township

The incorporation of sustainable and energy efficient features within these projects will provide an estimated annual net saving in electricity consumption of 103,000 MWh and an annual net saving in water consumption of 3.8 million cubic meters. These savings are equivalent to powering approximately 1,300 local households and meeting water demand of approximately 1,800 local households per year.

Compensate

Circulate

## Deploying carbon capture, utilization and storage

CCUS is an important lever in QatarEnergy's corporate strategy to develop a position in low-carbon businesses. So far we have successfully deployed 2.2 MMTPA of CCUS capacity in Qatar and are targeting a total capacity of 7-9 MMTPA by 2030 and over 11 MMTPA by 2035. As our CCUS capacity grows in the coming years, we understand that a CCUS standard and framework is required for the State of Qatar and are contributing to their development.

Our current 2.2 MMTPA CCUS capacity captures inherent $CO_2$ in the feed gas to the LNG trains and sales gas assets. The capture of this $CO_2$ is important in producing lower-carbon intensity LNG for export. At the NFE and NFS LNG expansion projects, we also intend to incorporate CCUS systems, which will be integrated with existing CCUS capacity. Since its inception, we have captured and successfully stored around 6.3 million metric tons $CO_2$.

Future CCUS plans include: (1) integrating CCUS with existing LNG trains, (2) capturing $CO_2$ in the production of lower-carbon ammonia, (3) capturing $CO_2$ from a new natural gas processing facility supplying feed gas to downstream industries, (4) capturing post-combustion carbon from gas fired turbines as, well as (5) building $CO_2$ transport pipeline infrastructure. The feasibility and implementation of all projects under consideration is subject to QatarEnergy's robust technical and economic evaluation processes considering all aspects of the CCUS value chain (capture, transport, utilization and storage).

Key highlights in progressing CCUS in 2023 include:

- The $CO_2$ Export Project is progressing on schedule, achieving an overall progress of around 94%. The project will export captured $CO_2$ from QatarEnergy LNG South facilities to Dukhan for enhanced oil recovery purposes.
- The FEED project to capture $CO_2$ from seven QatarEnergy LNG North trains and three QatarEnergy LNG South trains was awarded in 2023 and year-end progress was over 50%. $CO_2$ will be captured from the acid gas enrichment process of the LNG trains and compressed in a centralized facility to meet the required wellhead injection pressure. Six injection wells will be drilled within RLIC as part of the project. The potential $CO_2$ capture from this project is over 4 MMTPA, significantly contributing to the reduction of GHG intensity of our LNG facilities.
- As part of further emissions mitigation from our operations, in 2022, QatarEnergy signed a memorandum of understanding with an original equipment manufacturer (OEM) to develop a CCS roadmap. In 2023, the OEM commenced a feasibility study of implementing post-combustion carbon capture technologies with the objective of capturing around 2.5 MMTPA of $CO_2$ from power plants. The study is expected to be completed in 2024 and based on its outcomes, we intend to undertake a similar feasibility study for the refrigeration gas turbines at our LNG facilities.

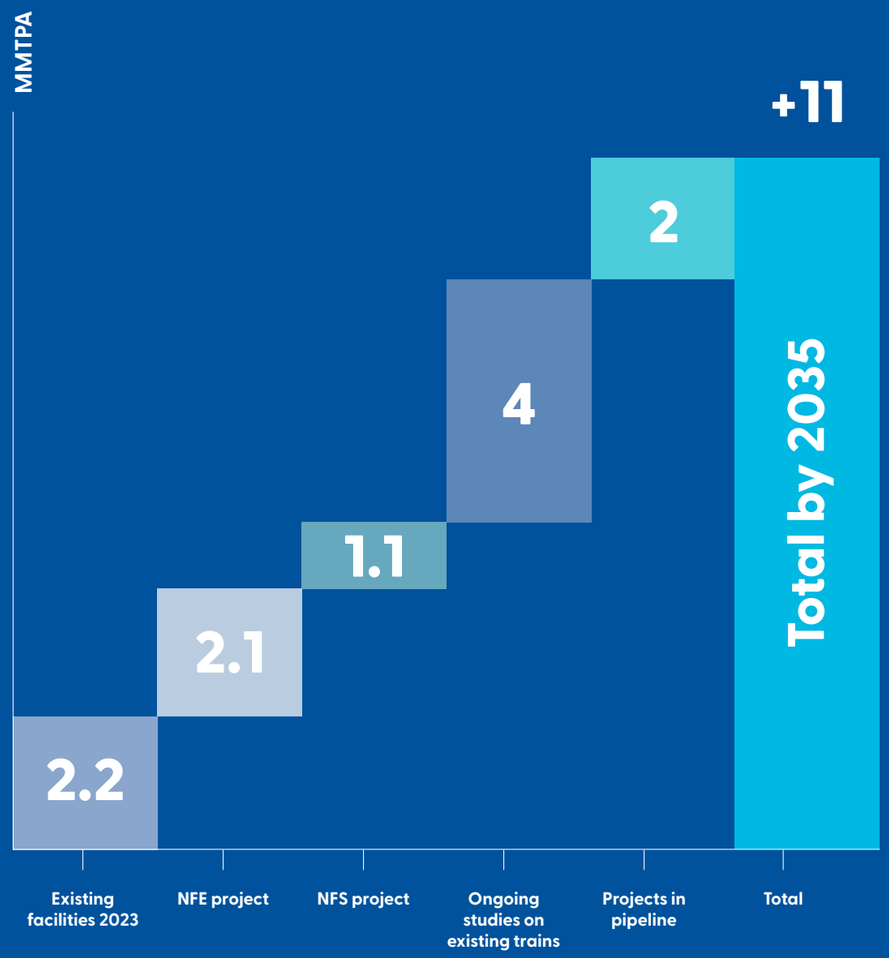
**CCUS technologies for a more sustainable future**

**Ahmad Hassan Kafood**

Manager, Onshore Facilities

As an Asset Manager for QatarEnergy LNG ventures within QatarEnergy, I take pride in contributing to the innovative projects and initiatives focused on CCS within our LNG and Sales Gas Trains. These endeavors exemplify our firm dedication to environmental stewardship. CCS technologies are instrumental in mitigating greenhouse gas emissions and addressing climate change head-on. Upon completion, these endeavors will markedly reduce the carbon footprint of our LNG operations, charting a course towards a more sustainable future.

### CCUS potential



QatarEnergy

# Our look ahead

In 2024, QatarEnergy will continue its efforts towards achieving climate change related targets including:

**Policy framework development**
Development of standards and frameworks related to energy attribution certificates; carbon capture and storage; emissions monitoring, reporting and verification.

**Progressing OGMP 2.0 Gold Standard Status**
We will continue working towards progressing from Level 3 reporting to Level 4 at all material assets, with Level 5 reconciliation scheduled for 2024.

**Corporate wide study: Optimizing energy and carbon management**
QatarEnergy will undertake a corporate-wide study focused on energy and carbon management across all operated assets. This comprehensive study will involve benchmarking against international best practices, identifying existing gaps, prioritizing initiatives for gap closure and developing optimal energy roadmaps. Our goal is to reduce our carbon footprint across the organization.

# Environmental action




All of QatarEnergy's operated assets are located in the State of Qatar. As such, we place priority on safeguarding and preserving local natural resources and the environment. QatarEnergy is aligned with NDS 3, which defines the need to conserve natural resources and protect ecosystems. The national strategy emphasizes enhancing air quality, protecting biodiversity, restoring natural habitats, managing water resources and promoting circularity.

In line with NDS 3, environmental action is a key pillar of our sustainability strategy and complements our efforts to mitigate the impacts of climate change (please refer to Our sustainability strategy section of this report). Our actions in protecting the environment start with responsible use of Qatar's natural resources, including air, water and land. We focus on minimizing the impact from our operational activities and are promoting waste management and circular practices. We have also made significant strides in protecting, restoring and enhancing Qatar's natural habitats and biodiversity.

# Environmental management

QatarEnergy has a robust Environmental Management System (EMS) in place that is ISO 14001:2015 certified. The EMS applies to all QatarEnergy's current and planned activities. Our standards, procedures and guidelines are intricately designed to align with our dedication to environmental welfare, ensuring the preservation of ecosystems and minimizing impacts on the receiving environment.

We have corporate standards in place for environmental risks and requirements related to site preparation works for new capital projects, abandonment at the end of life of assets and the remediation and restoration of land. Our corporate procedures include a procedure for conducting environmental assessments for new capital projects. This procedure complies with Qatar's Environmental Protection Law and meets the requirements to apply for environmental permits from the Ministry of Environment and Climate Change (MECC) prior to commencing project execution. Our environmental assessment guidelines define the requirements and methodologies for undertaking environmental impact identification and assessment studies.

To support capital projects, QatarEnergy also has guidelines in place for developing and preparing environmental management plans for both construction and operational activities. Furthermore, operation of assets in Qatar requires a Consent to Operate (CTO) license from MECC. We have corporate procedures in place to undertake compliance assessments to fulfil MECC's requirements and conditions to obtain the CTO.

As part of EMS, QatarEnergy has corporate standards for the management of water resources, requirements for air quality monitoring using Continuous Emission Monitoring Systems (CEMS) and guidelines to monitor and report GHG and pollutant emissions impacting air quality. Our corporate standards, procedures and guidelines on waste management support efforts to promote circular practices within QatarEnergy. Collectively, all elements of the EMS at QatarEnergy are pivotal in ensuring that we achieve the ambitions related to environmental action laid out in our sustainability strategy and support the environmental targets stipulated within NDS 3.

## Environmental impact assessed at every stage of the capital projects process

At QatarEnergy, all capital projects executed exclusively by QatarEnergy must undergo a stage-gate approval process. The stage-gate approval process is a standardized approach to deciding the continued execution of a project based on its economic and operational viability.

Under this, the decision to continue the execution of a project is based on 12 complexity factors which include HSE. Environmental assessment is an integral part of overall HSE requirements on projects, hence projects will not move to the next stage until the relevant environmental assessment requirements for the current project stage have been undertaken and approved. The environmental assessment requirements are provided in the figure below.

In 2023, QatarEnergy also commenced the Environmental Compliance Assurance Program. This program, aimed to enhance a project's environmental performance, focuses on evaluating contractor performance against the requirements stipulated in the environmental permit obtained through MECC for the construction phase. The program comprised of two key campaigns. The first campaign, conducted in the second and third quarters of the year, focused on assessing the environmental compliance of contractors on live construction projects. Upon completion of the assessment, the second campaign, held in the fourth quarter, focused on validating measures (when applicable) to ensure MECC's set requirements are adhered to. As an immediate result, all QatarEnergy permit related issues have been resolved and the construction projects compliance has increased by 88%.

## QatarEnergy's stage gate process:

| Project stage | Stage 1 > | Stage 2 > | Stage 3 > | Stage 4 > | Stage 5 |
|---|---|---|---|---|---|
| | Project initiation | Feasibility study | Concept optimization | Engineering definition | Implementation, handover and completion |
| **Environment assessment requirement** | Initial environment risk register (ERR) | Options selection decision tools, which include, amongst others, results of the environmental impact identification (ENVID) | Review and update of environmental risk register | Environmental site assessment and subsequent site assessments for any identified gaps<br><br>Submission of environmental permit application to MECC<br><br>Detailed environmental impact assessment (if required by MECC) | Construction environmental management program (CEMP)<br><br>Decommissioning environmental management plan (DEMP) - where applicable |

# Protecting local natural resources – air, water and land

As part of our commitment to environmental stewardship within the State of Qatar, we are committed to responsible consumption of natural resources and are undertaking various measures to protect them. Our initiatives focus on air pollution management, managing use of water and land conservation. Our practices on new projects include environmental impact assessments and development of mitigation plans, ensuring we minimize the impact on local resources both during the construction phases as well as during asset operation.

## Air

Air quality indicators are crucial to evaluate air-related impacts and management strategies. QatarEnergy is legally obligated to measure and disclose air quality related parameters in terms of our CTO permits issued by the MECC. Together with GHG emissions measurements, these air quality indicators serve as a mechanism for tracking QatarEnergy's climate change and ambient air quality performance.

In 2023, QatarEnergy observed an overall increase in sulfur dioxide ($SO_2$) emissions by around 15% compared to 2022, in part due to increased flaring at two of our stations, due to prolonged equipment breakdown events. Under our climate change commitments, we continue to implement mitigation measures to reduce routine and non-routine flaring from our assets (please refer to Climate change action chapter of this report).

Nitrogen oxides (NOx) emissions in 2023 remained relatively flat at 11.4 thousand metric tons compared to 11.6 thousand metric tons reported in 2022. Higher flaring led to an increase in NOx emissions, however, these were offset by shutdown and turnaround activities in Dukhan and offshore locations.

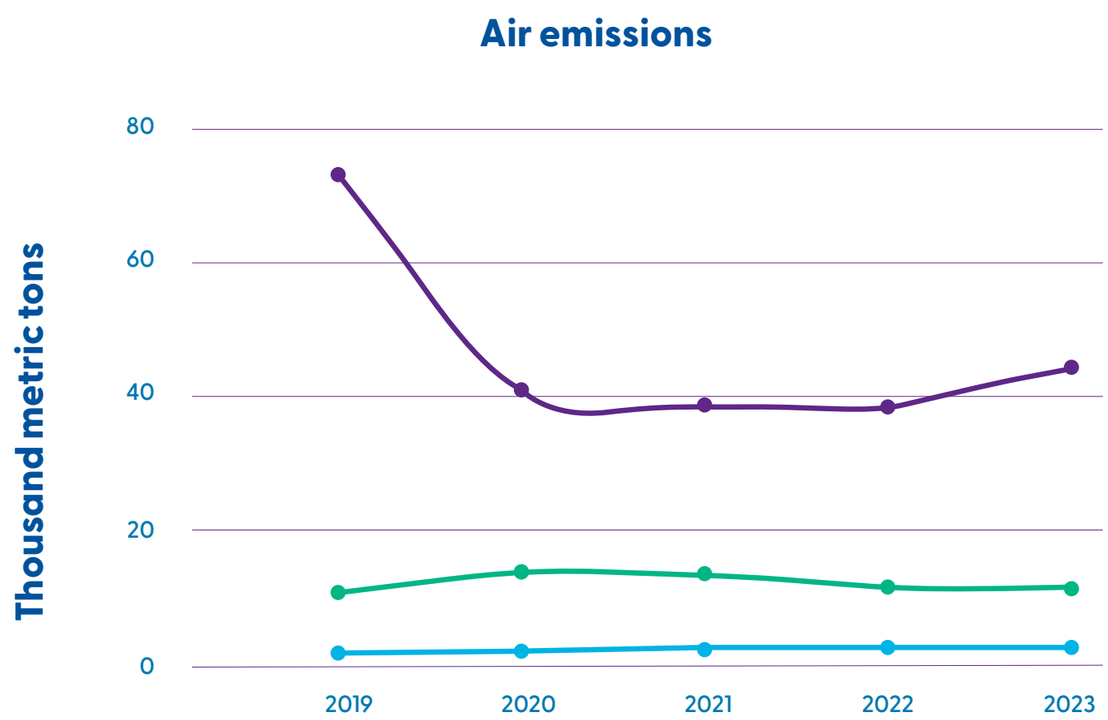
The increase in VOC emissions in 2023 was mainly due to the unplanned flaring activities at the offshore operations. VOC emissions from fugitive leaks decreased by over 20% in 2023, but this reduction was offset by the VOC emissions from the unplanned flaring.

**Ambient air monitoring is an integral part of effective air quality management system**

**Salman Fahad Al-Mohannadi**

Head, Environment (RLIC)

Our ambient air monitoring is an integral part of our effective air quality management system, assessing pollutant levels over long term (past two decades), in real time, with air quality data and trends available to easily evaluate effectiveness of emission control strategies and verifying compliance to applicable requirements.




QatarEnergy operates 16 ambient air quality monitoring stations across Qatar, primarily in its industrial cities (Mesaieed, Dukhan and Ras Laffan) and one offshore at the Halul Terminal, as well as some in adjacent residential areas. Following international best practices, these stations undergo independent audits every three years, with data submitted to MECC, contributing to the national ambient air quality monitoring network. Emissions from larger sources are continuously measured using CEMS, whilst smaller sources are manually assessed monthly.

In 2023, QatarEnergy collaborated with other asset operating companies and JV partners based in Qatar to launch an air pollution dispersion modeling project. The Ambient Quality Management Information System (AQMIS) model is being used to forecast air quality concentrations 24 hours in advance, aiding in identifying dispersion patterns and supporting air quality investigations in industrial cities.

Furthermore, to improve air quality, QatarEnergy's company wide LDAR project completed its second year and successfully monitored around 600,000 components. We are actively working on a flare gas recovery project at the Mesaieed Refinery, with implementation expected in 2026. As part of voluntary environmental commitments, we are progressing towards zero offshore routine flaring before 2030, whilst identifying and mitigating onshore routine flaring sources. Further details on these initiatives are provided in our efforts to curb the impact on climate (please refer to Taking action section of this report).

# Water

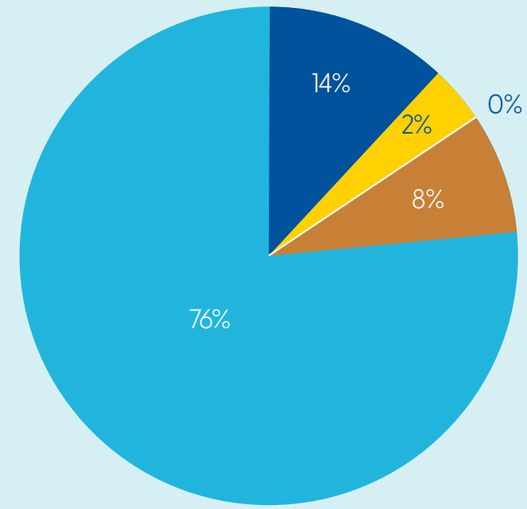
Aligned with QNV 2030 and NDS 3 ambitions, QatarEnergy is dedicated to cutting down water use. We are taking proactive actions to save fresh water and reduce discharges to the sea. In 2023, we launched a water conservation project to better understand and manage water use across our operations. Using a third party, we completed extensive water-use surveys carefully analyzing the overall water balance, benchmarked water efficiency against other companies in the industry and came up with practical and customized plans for reducing water use of potable water, groundwater and seawater. These steps aimed not only for significant water savings but also laid the groundwork for a strong water conservation strategy. This includes setting short- and long-term water reduction targets and collaborating with asset operators on implementation, with water savings expected to be achieved by 2030.

Additionally, in the Dukhan Concession Area (DCA), a detailed groundwater assessment was completed, leading to the development of a strategic action plan for mitigating and remediating operational impacts on local groundwater. This is an example of our commitment to Qatar's NDS 3 environmental ambition of preserving groundwater.

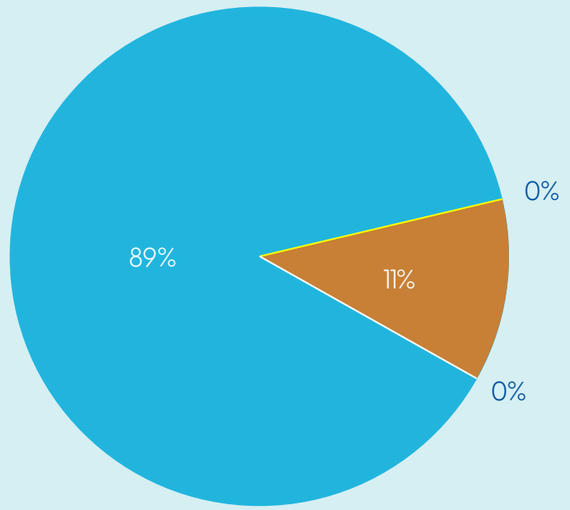
Water indicators are crucial to evaluate water-related impacts and management strategies. These indicators enable QatarEnergy to measure and disclose water usage, discharges and conservation efforts, fostering transparency. Effective assessment through these indicators helps us to identify areas for improvement in water efficiency, reducing risks associated with water scarcity or discharges. Overall, these indicators serve as a mechanism for evaluating and enhancing QatarEnergy's performance in sustainable water management.

Approximately 90% of the total water withdrawal in 2023 was seawater and water co-produced with hydrocarbons (produced water). The remaining 10% came from groundwater sources and from third parties, such as municipal water suppliers.

## Total water withdrawn by source - 2023




## Total water discharged by destination - 2023




In 2023, the total volume of water discharged to the Umm El Radhuma (UER) aquifer increased compared to 2022, mainly due to a continuous upward trend in produced water discharge at Halul Island that has been observed since 2021, increased produced water generation at the Al Rayyan field and Dukhan operations' plants being temporarily shut down for the phase 3 project commissioning (powered water injection systems for reinjection into the oil reservoir, enhancing oil recovery).

The increase in water discharged to seawater reported in 2023 compared with 2022 is linked to the enhanced water reporting as per the GRI 303: Water and Effluent Reporting Standard. Non-contact cooling water from Mesaieed operations, Idd El Shargi operations and offshore operations was reported for the first time in 2023.

# Water management at QatarEnergy

### Water is a scarce resource

Operating in a region with scarce water resources, QatarEnergy recognizes the importance of water conservation. To address this challenge, we have implemented environmental policies aimed at protecting water sources and restoring ecological balance.

The State of Qatar relies on seawater, groundwater and the reuse of treated sewage effluent (TSE) to meet its water needs. Freshwater scarcity is also a matter of great concern, especially as the population grows and the demand for water resources increases. According to the World Resources Institute's aqueduct water risk atlas, the State of Qatar falls into the high-water risk category 2. Hence, the State of Qatar's water-related strategic priorities include:

1. regular and effective monitoring,
2. increasing the share of sustainable technologies for desalination e.g., reverse osmosis,
3. reduce groundwater extraction,
4. minimize water losses and maximize recycled water usage,
5. reduce per capita household water consumption.

o support national ambitions, we released an internal corporate standard for water management. This includes requirements to consider water savings throughout the lifecycle of a project and for asset operations teams to proactively identify water conservation initiatives that will support the development of short- and long-term water reduction targets.

### Water conservation project

Our water consumption includes potable water (desalinated water supplied by third party), seawater and groundwater. In offshore facilities, we generate our own potable water via desalination of seawater. Given the energy requirements of desalination, it leads to significant GHG emissions. Furthermore, it also leads to the discharge of brine back into the sea.

To reduce water consumption, in 2023, QatarEnergy initiated a comprehensive water conservation project across all its assets, evaluating current water use, benchmarking against industry standards and identifying conservation options. The assessment led to the development of a detailed water balance and footprint, facilitating reporting compliance

and better monitoring of water usage patterns.

The project has enabled us to define our overall baseline water usage for potable water, seawater and groundwater. Furthermore, a number of water reduction options across the different assets have been identified and studied to reduce water use. These reduction options were screened based on their water saving, $CO_2$ reduction potential and also considered cost and environmental impact.

The initiatives have led to the development of a water conservation plan, which identified quick wins as well as long-term projects. Furthermore, it identified asset level KPIs related to implementation of projects and monitoring of water use. The outcomes of the project have been presented to relevant operations managers and industrial cities managers, which will enable conservation plans by assets to be defined and endorsed.

QatarEnergy

## Water balance and tracking

Prior to undertaking the water conservation project, there were various uncertainties related to water demand, usage and discharge due to the limited visibility over water cycles within our operations and industrial cities. During the water survey phase, we mapped all our water uses from intake to discharge and developed a comprehensive water balance and water footprint for all our onshore and offshore operations and industrial cities. We also conducted in depth validations to water measurement and metering and identified gaps in metering. This enabled us to identify opportunities to improve water measurement and reporting. Overall, this has allowed us to increase our sustainability water reporting metrics to 17 in 2023 compared with only three water metrics in 2022 and prior years.

Through this work, we have developed an enhanced water database and trend tracking tool for monitoring water consumption trends and have identified areas for improvement across all assets.

## Further water reduction initiatives

- At our headquarters in Doha, we negotiated agreements with local authorities to shift HVAC systems from potable water use to TSE, aiming for a 100% reduction in potable water usage.
- We are also upgrading wastewater treatment plants across our operations in MIC to recycle process water for landscape irrigation, reducing reliance on potable water sources for non-potable purposes.
- We will launch water awareness programs across our facilities and industrial cities to promote responsible water management among employees and stakeholders, aiming to instill a culture of conservation.
- We will continue to influence our partners and JVs to adopt similar approaches in water management and to set targets for water reductions.

### PHASE 1

1. **Assigned Focal Points** across directorates
2. Desktop **data collection and analysis**
3. **Meetings** with leadership
4. **Field surveys**
5. **Water balance and metering gaps** for each operation area

### PHASE 2

1. **Benchmarking** of water intensity
2. **Workshops** to identify water reduction options
3. **Feasibility screening** of water reduction options
4. Reduction options **discussion with teams** from each operation area
5. **ENVID** and cost analysis

### PHASE 3

Development of water conservation plans for each facility

## Land

Under our land management initiatives, we appointed a third party to undertake a detailed study to assess the impact of sand quarrying operations, which take place during construction activities. The study was conducted in collaboration with key stakeholders. It addressed ecological impacts and identified sustainable alternatives to reduce use of sand. Recognizing washed sand as a scarce resource, the study highlighted areas for improvement and recommended strategies for the responsible utilization of natural resources within the construction of our capital projects. Drawing parallels to the sand dune example provided in the Sustainability Report 2022, an informed decision-making approach was pivotal. This approach led to a technical adjustment in our construction processes, resulting in tangible environmental benefits. We are working on integrating the outcomes into our processes and decision making.

As we move forward, our ongoing efforts are expected to focus on the implementation of the outcomes of the various monitoring activities and studies we have been conducting. This will contribute towards our aspiration of safeguarding Qatar's natural resources for future generations.

## Managing local land resources through sustainable usage of primary construction raw materials

QatarEnergy has been granted the rights to conduct or authorize operations by the State of Qatar at several concession areas. These include the DCA, MIC and RLIC. These areas primarily serve as the location for QatarEnergy's operations. However, QatarEnergy also leases specific land portions to operators for sand quarrying operations within the DCA site, which covers approximately 680 $km^2$. These operations serve to supply sand to the local cement and construction industry. The DCA sand quarrying operations and other similar operations elsewhere in the State of Qatar, constitute the primary source of sand supply.

In a proactive move, QatarEnergy has engaged the services of a globally recognized third party, to conduct a comprehensive assessment of the impact of sand quarrying operations within Qatar. This study encompasses operations at both DCA and other local quarrying operations. The overall study is being undertaken in collaboration with key stakeholders such as the Ministry of Environment and Climate Change, Ministry of Municipality, Ministry of Commerce, Ashghal (Public Works Authority), National Planning Council, Customs Authority, sand operators and various manufacturers within Qatar.

The objective of the study was to thoroughly evaluate the ecological and environmental repercussions of sand quarrying operations. The study employed drone analysis to quantify reserves, explored alternatives and devised a future strategy aligned with Qatar's environmental sustainability targets under NDS 3. The overarching aim is to safeguard Qatar's natural land resources for future generations.

Expanding its scope, the study addressed all primary raw materials for the construction industry in Qatar, whether locally quarried, locally manufactured or imported. The materials studied included sand, limestone, gypsum, iron, steel, clinker, cement, bitumen and aluminium. The key focus of the expanded study was to assess production, quarrying and supply practices with a primary emphasis on environmental considerations, operational efficiency and the ultimate utilization of natural resources.

The study has highlighted the strategic importance of recognizing washed sand as a scarce resource, whilst also pinpointing areas for improvement. Recommendations included updating construction specifications, enhancing waste management and valorization practices, optimizing resource management and fostering better-integrated planning strategies within the construction sector and its supply chain.

The ultimate goal is to formulate a long-term strategy that incorporates alternative construction materials, ensuring sustainable practices benefit the State of Qatar's environmental and economic future.

# Circularity and waste management

Qatar is striving to become a thriving circular economy, as reflected in the NDS 3. Accordingly, QatarEnergy places a strong emphasis on circularity and waste management. We adhere to a waste management hierarchy – remove, reduce, reuse, recycle, recover and dispose – prioritizing environmentally friendly practices.

Waste-generating activities across our operations undergo thorough categorization based on type, quantity, frequency, handling requirements and disposal methods. Our operations generate various wastes, including oily sludge, spent catalysts and spent oils. We recognize that proper waste management not only minimizes environmental impact but also yields reusable resources. We have launched a comprehensive Waste Management Life-Cycle Assessment project. This initiative seeks to conduct a detailed life cycle assessment of all waste streams generated across our operations. The aim is twofold: to benchmark our practices against international standards and to develop cost-effective waste management plans, whilst identifying circular economy opportunities, which we will be implementing going forward. We are also proactively identifying ways of utilizing recycled materials instead of procuring new resources for both our existing operations and new projects. This will help to reduce the impact on local natural resources and promote a local circular economy beyond our operations.

At our headquarters in Doha, the Facilities Management (FM) team has implemented a comprehensive Waste Management Program. This encompasses various initiatives, including the Recycling Waste Monitoring Program, the Medical Waste Monitoring Program and an Awareness and Promotion Program targeting both employees and contractors.

This integrated program ensures the effective management of diverse waste streams and fosters a culture of recycling and responsible waste disposal. The FM team also provided awareness training to third-party restaurants and outlets staff at our headquarters, with plans to roll out training to housekeeping staff on recycling programs in place. Furthermore, the FM team also manages and maintains a waste management database and monitors compliance of requirements for the headquarters. Such initiatives have allowed us to recycle around 7,000 metric tons of hazardous and non-hazardous waste in 2023. Beyond managing and recycling waste, the FM team also carried out inspections and site visits of the recycling facilities and tested product samples and raw materials from these facilities.

Our headquarters FM team is also actively involved in maximizing the lifespan of resources, primarily fixtures, furniture and equipment. Collaborating with other FM teams across QatarEnergy locations, the team shares a common objective of optimizing existing inventories before considering new purchases. This approach not only reduces the write-off of materials but also minimizes potential disposal of wastages by the write-off contractor responsible for collecting the items.

Waste management indicators are vital for assessing QatarEnergy's performance on waste-related practices. These indicators encompass aspects such as hazardous and non-hazardous waste generation, recycling efforts and disposal methods. Through the implementation of these indicators, we can evaluate QatarEnergy's impact on the receiving environment, identify opportunities for waste reduction and recycling and demonstrate commitment to sustainable practices.

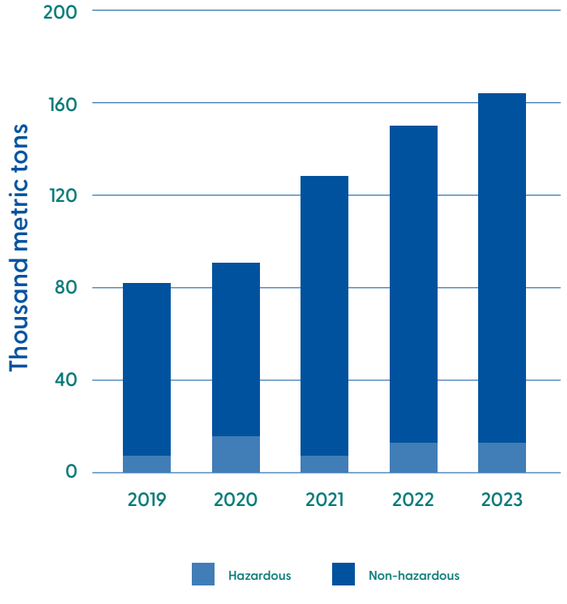
In 2023, the total waste generation increased by 9% compared to 2022 due to the following reasons:

- There has been a 9% increase in non-hazardous waste generation, in comparison to 2022, due to the MIC port reporting domestic waste for the first time in 2023. In addition, there was an increase in the generation of non-hazardous waste from engineering projects as well as an increase in the generation of domestic waste from RLIC.
- There has been an 8% increase in hazardous waste generation compared to 2022, mainly due to the engineering projects across QatarEnergy.

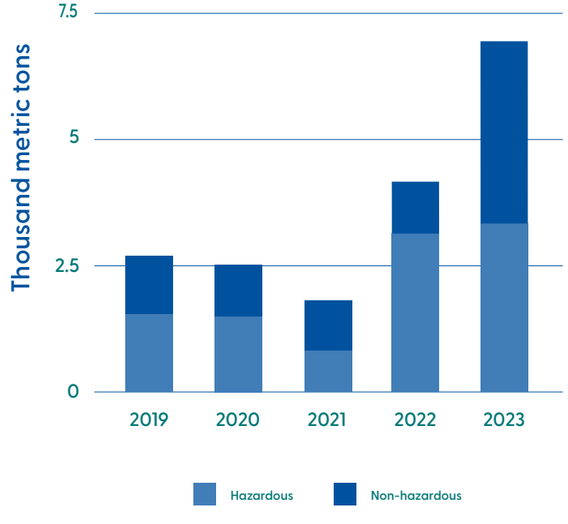
The rates of recycling have increased in 2023 compared to 2022:

- Hazardous waste recycling increased by 6% due to an increase in the recycling of fluid catalytic cracking (FCC) catalysts and particulates at QatarEnergy Refinery, as well as increase in recycling of hazardous material in PS-2.
- There has been more than a 265 % increase in non-hazardous waste recycling, in comparison to 2022, due to increase in the recycling of non-hazardous waste from Dukhan operations.

Waste generated




Waste recycled



# Protecting habitats and biodiversity

Qatar's NDS 3 emphasizes the protection of biodiversity, land and marine resources, as well as the restoration of degraded natural habitats. Aligned with national ambitions, QatarEnergy's sustainability strategy focuses on protecting, restoring and enhancing habitats and biodiversity. We undertake proactive measures to protect local habitats and natural resources, hence, mitigating and minimizing the impact of our current and future activities. Where our activities impact habitats and resources, we focus our efforts on restoration. We aim to enhance and improve Qatar's biodiversity and natural habitats.

## Protect

Our focus is on taking early action by identifying potential environmental concerns and proactively mitigating them. We aim to avoid negative impacts on local biodiversity and natural habitats from our activities.

QatarEnergy has consistently carried out an ecological survey every three years to monitor and to assess any significant environmental impact from our operation. The survey is aimed to safeguard ecological health of the marine environment in QatarEnergy offshore concession areas. In 2023, the survey was conducted around Halul Island and Al-Rayyan field and comprised 45 and 20 sampling sites, respectively. No significant environmental impacts were observed in the immediate vicinity of and around QatarEnergy facilities. In addition, hydrocarbon and metal concentrations for these areas were found to be below Qatar National Standard maximum permissible limits.

We are implementing processes to evaluate spills and Loss of Primary Containment (LOPC) incidents, which allow us to identify weaknesses in our risk management strategies. This enables us to implement improvements and maintain our strong commitment to environmental stewardship. Effectively addressing and reporting hydrocarbon spills not only mitigates environmental impact but also allows us to meet the expectations of regulators and communities. Due to such efforts, there has been a decrease in the amount of hydrocarbon spill in 2023 in comparison to 2022, primarily due to enhanced emergency response drills and planning.

We actively pursue efforts to prevent the release of, and protect the ozone layer from, depleting substances such as halon. We have successfully embarked on a halon recycling project in 2023 to eliminate the risk of an uncontrolled release of halon from the inventory of disused cylinders at our facilities. By implementing the project, we have developed a process to safely collect all halon systems cylinders, package them appropriately and export these systems cylinders to a certified halon bank in the United States of America.

We are also examining initiatives to reduce the impact from our non-operational activities to protect local habitats and biodiversity. In 2023, we commenced the process to examine the use of environmentally friendly products for cleaning services provided by third-party FM companies. Our future contracts and renewals will consider the utilization of green and/or environmentally friendly products for such services.





QatarEnergy

# Protecting habitats and biodiversity through early planning and quick action

Where applicable, we focus on taking preventative steps and having management plans in place with the aim of preventing the occurrence of events which may negatively impact the environment. Our approach on naturally occurring radioactive material (NORM) waste management is an example of this, where we are proactive in identifying the source and the extent of the issue, as well as planning the course of action to minimize the occurrence of the associated environmental risk.

Complementing this approach and as part of our response planning, we focus on understanding and having knowledge of the potential sources, which may impact the environment if an event was to occur. Our work on geochemical fingerprinting of hydrocarbons is a key example, where early detection and identification of the source in the event of an oil spill may support in minimizing the impact, whilst maximizing protection of surrounding habitats and biodiversity through early response action.

## NORM waste management

NORM is encountered in oil and gas production.

QatarEnergy has robust mechanisms in place for personnel safety and minimizing exposure to NORM. We follow Regulatory Agency and International Association of Oil & Gas Producers (IOGP) best practices and our corporate procedures were developed accordingly to define practices in handling, transporting and storage of NORM. We have dedicated licensed radiation protection officers and all transportation vehicles are also licensed.

We have a dedicated licensed site at Dukhan to collect equipment contaminated with NORM. Given the increasing number of contaminated tubulars from oil wells being collected, we decided to undertake a detailed NORM Waste Management project. The objective of the project is to not only protect personnel but to also protect habitats and biodiversity from environmental risks associated with NORM.

Within Phase 1 of the project, we undertook a detailed survey and carried out in-house radiation testing of all upstream installations. This allowed us to identify a significant number of wells where scale buildup containing NORM was accumulating in tubulars. Furthermore, NORM was also detected during surveys in tanks sludge due to hydrocarbon production. The contaminated sludge from these tanks is also stored at the dedicated site in Dukhan in sealed drums and then stored in steel containers.

The second and third phases of the project focus on taking action to minimize the environmental risks associated with NORM. Under Phase 2, we are in the process of identifying a third-party contractor who will decontaminate equipment containing NORM. This will allow for the decontaminated equipment to be re-installed and brought back into operation instead of being stored indefinitely at the storage site, further improving our circular practices, whilst minimizing risks associated with contaminated material.

Under Phase 3, we plan to focus on NORM waste disposal at a NORM approved disposal site.

We are also working with our JV partners in forecasting future NORM waste generation for better management practices. These proactive measures minimize future risks to both personnel and local environment.

## Geochemical fingerprinting of hydrocarbons

Geochemical fingerprinting characterizes the molecular composition of hydrocarbon fluids. Just like human beings have unique fingerprints, hydrocarbons also have characteristics which make them unique.

In 2023, QatarEnergy deployed two advanced geochemical technologies: multi-dimensional gas chromatography (MDGC) and a biomarker analysis approach using gas chromatography mass spectrometry (GCMS) instrumentation.

We are building a geochemistry database for all onshore and offshore oil and gas fields in Qatar. This database will be the reference to draw the baseline “fingerprints” of produced hydrocarbons from all reservoirs.

By implementing geochemical fingerprinting, we can reduce HSE risks and minimize emissions associated with routine and non-routine operational activities such as production logging and rig relocation.

However, more importantly this technology can be applied effectively to trace the source of a potential oil spill, which can reduce response time for disaster management and minimize environmental impacts.

## Restore

Our primary focus is to undertake steps to protect local habitats and biodiversity. However, where our operations and activities impact these, we are undertaking various restoration measures.

In 2023, RLIC commenced an extensive study on emissions of VOCs and NOx. These compounds are primary precursors in the formation of ground-level ozone and fine particles. The Ozone Precursor Study Evaluation and Photochemical Assessment and Modelling project aims to comprehensively understand the source, evolution and chemical processes influencing the formation, transport and fate of ozone precursor pollutants. The outcomes of the study will guide QatarEnergy's initiatives to improve air quality by minimizing VOC and NOx emissions.

In 2023, we actively contributed to cleaning plastic waste and debris from the seafront at MIC Port. Preserving the seafront is part of our efforts to protect the marine ecosystem, including local fish and turtles. Marine life is vulnerable to become entangled into plastic waste and may consume waste as well as degraded microplastics. Our efforts to maintain and clean the seafront are part of an ongoing activity and approximately one cubic meter of plastic waste and debris is recovered every month.

As part of our restoration efforts, we conducted annual beach cleanup campaigns at both RLIC and MIC. The Mesaieed Clean-Up Awareness Campaign was held at Sealine Public Beach, one of the most visited beaches by local communities within Qatar. In addition to QatarEnergy, volunteers from MECC and a local school participated in the campaign. The campaign focused on not only cleaning the beach but to also raising awareness amongst the participating students on the importance of protecting local marine environments and biodiversity. Moreover, we also organized the RLIC Beach Clean-up Drive. This annual voluntary event had participants from QatarEnergy as well as other companies operating within RLIC. Beyond the cleanup of the RLIC beach, this campaign serves a key purpose in protecting the hawksbill turtles and the hatchlings during the nesting period.

QatarEnergy

## Enhance

Through ongoing initiatives and dedicated efforts, we are focused on elevating the biodiversity within our operational areas as well as within the State of Qatar, hence, contributing to the conservation and protection of local ecosystems.

QatarEnergy has continuously been supporting local marine turtle conservation projects. These projects assess the hawksbill turtles' (Eretmochelys imbricata) nesting activities around multiple locations within Qatar. In 2023, the project recorded an impressive 281 hawksbill turtle nests, yielding approximately 15,899 hatchlings released into the sea. This marked a 22% year-on-year increase in turtle nest records and 11% year-on-year increase in the overall number of hatchlings released to the sea, a testament to enhanced protection measures, including night patrols, fencing and seasonal closures. In total, 103 adult turtles were encountered and tagged of which 61 were newly tagged turtles and 42 were recaptured turtles. This demonstrates the project's aim to understand and monitor turtle populations in Qatar were successfully achieved.

**Sustaining life of marine biodiversity**

**Joel Alcarde Gonzales**

Senior Impact Assessment and Environmental Analyst

Marine turtles are keystone species in Qatar's marine ecosystem. These species are not only important ecologically but also influence the abundance of species, the health of coral reefs and seagrass habitats. Recognizing the significance of these marine turtles, especially the resident endangered species (hawksbill and green turtles). The State of Qatar has demonstrated a strong dedication to safeguarding these vulnerable species to ensure their long-term survival. QatarEnergy has been supporting the marine turtle conservation program of the State of Qatar since its inception.

During 2023, we continued planting trees across our industrial cities under the 'One Million Trees' project. This is a community engagement project and offers a variety of environmental benefits. Over 100,000 trees have been planted in RLIC, with an additional 15,000 trees being planted in DCA. Simultaneously, ongoing projects like NFE, NFS and Ras Laffan Petrochemical Complex are set to plant 295,000 trees. Additional locations to plant the remaining trees are being identified, with the aim of achieving one million planted trees. The project focuses on planting a mix of native trees based on selected locations for plantations and uses innovative and proven irrigation techniques to minimize impact on natural resources.

Furthermore, in 2022 we had commenced the relocation of Ghaf trees (prosopis cineraria) from the MIC solar project site to Mesaieed jungle area. Throughout 2023, these trees were in their growing stage. To supplement the relocated trees, we planted an additional 1,000 trees to compensate for the solar project site clearance.

# Our look ahead

In 2024, QatarEnergy is planning to expand its environmental initiatives across various fronts, with a focus on protecting the environment. Key areas of focus include the following:

### Technical systems and performance audit

Technical systems and performance audits of ambient air quality monitoring stations (AAQMS) will be undertaken in MIC, RLIC and DCA, following the US Environmental Protection Agency (US EPA) guidelines. This audit will assess the operation and maintenance of AAQMS, ensuring the quality of generated data.

### Real-time air quality monitoring

QatarEnergy's industrial cities (MIC and RLIC) and DCA will continue using real-time air quality modelling technology to assess and report ambient air quality accurately. Additionally, the company will commence evaluating indoor air quality metrics and thermal comfort within its headquarters, contributing to occupants' health and wellbeing.

Furthermore, data on carbon monoxide levels in closed parking lots at QatarEnergy headquarters will be analyzed and any potential mitigation actions identified, based on concentration levels will be implemented.

### Particulate matter speciation project expansion

Building on the success of the particulate matter speciation project in RLIC between 2020 and 2022, QatarEnergy plans to extend the project to include MIC and Dukhan. The aim is to better understand the sources of particulate matter in these areas and identify effective management and mitigation strategies.

### Water conservation strategy

Upon identification and screening of options from the 2023 study, QatarEnergy will host several workshops with site leadership teams. These collaborative efforts are designed to plan the implementation of the study's outcomes through customized water reduction and conservation projects for all operational sites.

### Groundwater assessment expansion

Following a groundwater assessment in DCA, QatarEnergy will extend these assessments to more onshore and offshore areas. This expansion aims to enhance insights into operational impacts and the necessary mitigation measures to protect groundwater resources in accordance with NDS 3 ambitions.

RLIC is undertaking a groundwater management study to provide an understanding of the groundwater dynamics from both natural and operational activities within the entire city. The results of this study should ultimately lead to insight on the static and transient nature of the groundwater system and is expected to facilitate better decision making around issues including high groundwater table, contaminant fate and transport, spill and leak response and maintenance/design revisions as infrastructure reaches its design life.

### Waste management initiatives

A waste life-cycle assessment will be launched with the aim to develop block management diagrams and routing for waste streams to transform waste into revenue-generating products.

Simultaneously, office recycling initiatives will be enhanced, collaborating with facilities management and waste management contractors to increase recycling volumes.

### Anaerobic thermal desorption unit installation

A proposed installation of an anaerobic thermal desorption unit (ATDU) at MIC's Hazardous Waste Treatment Center will be a pioneering facility in Qatar, treating hydrocarbon-containing sludge and contaminated soil. This project aims to recover oil from oily sludge, reducing the carbon footprint associated with sludge processing and its environmental impact.

### Biodiversity conservation and awareness

QatarEnergy will continue to expand the marine turtle conservation program to include a comprehensive study of other species, such as the green turtle, and extending awareness campaigns, including beach clean-ups and turtle release programs to other locations.

### Sensitivity mapping and biodiversity assessment

QatarEnergy will conduct a comprehensive sensitivity mapping and biodiversity assessment covering terrestrial and marine areas across its concession areas.

# Maritime success stories

## Cold ironing of ships in RLIC Port

In its commitment to sustainable practices, Ras Laffan Port introduced cold ironing, a key initiative aimed at providing alternative power sources for harbor support crafts operating at the tug berths.

With a fleet of 20 dedicated harbor support crafts facilitating vessel berthing and unberthing operations, Ras Laffan Port's embrace of cold ironing marks a major step towards environmental responsibility. By offering shore power to harbor support crafts while vessels are alongside the jetty, Ras Laffan Port dramatically reduces the reliance on vessels' generators. This reduction translates to a significant decrease in air pollutants emitted into the atmosphere, aligning with the Port's overarching goal of mitigating climate change.

The progress of this initiative is characterized by its ongoing nature, with the commitment to cold ironing at the tug berths remaining steadfast. The contributions of this initiative are multifaceted, directly addressing environmental concerns and advancing sustainability in the following ways:

**Air quality improvement:** Cold ironing at the tug berths directly diminishes air pollution linked to vessel operations, fostering a cleaner and healthier air quality in the immediate port vicinity.

**Climate change mitigation:** By minimizing the reliance on vessel-generated power, Ras Laffan Port actively engages in efforts to mitigate climate change, recognizing and embracing the maritime industry's pivotal role in environmental conservation.

**Operational efficiency:** The provision of shore power enhances the overall efficiency of vessel operations by eliminating the continuous use of onboard generators.

## MIC Go Green Initiative

In a concerted effort to champion environmental sustainability, MIC implemented several noteworthy initiatives under the Go Green campaign, demonstrating a commitment to eco-friendly practices and resource optimization.

As part of the Go Green initiative, all tugboats operated by MIC are designed to prioritize fuel efficiency, with a particular emphasis on fuel conservation during escorting and emergency situations. The operational strategy involves maintaining a cruising speed of eight knots, significantly below the maximum service speed of 12 knots. This deliberate reduction in speed has resulted in considerable fuel savings and translated into a tangible reduction in $CO_2$ emissions.

Another highlight in the Go Green campaign is the optimization of CT7 and TT7 high mast lights across all yards. Recognizing the potential for cost savings and energy efficiency, MIC is taking steps to optimize lighting in various yards, anticipating an estimated monthly cost optimization of QR 10 thousand upon approval and implementation.

As part of the Environment Day Celebration - Phase 2, MIC launched the "Landscaping: More Clean, More Green" initiative at the port. By prioritizing landscaping efforts, MIC aims to create a greener and more visually appealing environment. This initiative contributes to the physical beauty of the surroundings and aligns with the broader objective of promoting a cleaner and more sustainable industrial landscape.

## Vessel Monitoring and Alerting System

The Vessel Collision Study and subsequent development of the Centralized Vessel Monitoring and Alerting System (CVMAS) project represents a pivotal initiative aimed at enhancing safety and preventing potential incidents related to vessel collision with offshore facilities and anchor drop or drag on subsea infrastructure. This comprehensive effort has delved into various aspects crucial for the successful implementation of the CVMAS:

**Vessel traffic analysis** - The study includes a meticulous analysis of vessel traffic patterns, considering the diverse marine activities around offshore facilities. This step ensures a comprehensive understanding of the maritime environment, laying the foundation for effective collision prevention measures.

**Ship collision study** - A dedicated examination of ship collision scenarios has been conducted to identify potential risks and vulnerabilities. This study is essential for formulating strategies and implementing safeguards to mitigate the impact of vessel collisions on offshore installations.

**Site survey of base stations** - To establish an effective monitoring system, the study includes a site survey of both existing and potential new locations for base stations. This step ensures optimal coverage for the monitoring and alerting system.

**Overall system architecture and network connectivity** - The development of the CVMAS involves crafting a robust system architecture, addressing factors such as data flow, communication protocols and network connectivity. This holistic approach is vital for creating a seamless and efficient monitoring system.

**Vendor list and vendor evaluation** - A comprehensive list of potential vendors has been compiled and a thorough evaluation process undertaken. This step ensures that the chosen vendors align with the project's objectives and can deliver the necessary technological solutions.

The FEED phase for the project has been successfully completed in 2023.

## Joint Marine and Port Logistics Center

The establishment of the Joint Marine and Port Logistics Center (JMPLOC) stands as a strategic initiative geared towards achieving operational synergy and optimizing costs associated with offshore supply vessels. This approach aims to streamline operations by consolidating all offshore supply vessels under a unified center. The progression of JMPLOC is marked by key milestones and achievements.

**Proof-of-concept:** The journey began with the initiation of the proof-of-concept in November 2022, a crucial phase designed to validate the feasibility and efficacy of the proposed concept. This phase successfully concluded in the first quarter of 2023, providing valuable insights and paving the way for further development.

**New fleet readiness:** An integral component of JMPLOC is the readiness of QatarEnergy's new fleet. The preparations and acquisitions have culminated in the availability of a new fleet, strategically positioned to contribute to the enhanced efficiency of maritime operations.

**Full phase commencement:** The full-scale implementation phase commenced in 2023, marking a significant step forward in the operationalization of JMPLOC. This phase is anticipated to bring about tangible improvements in coordination, resource optimization and cost-effectiveness.

**Centralized IT system utilization**: To facilitate seamless collaboration and enhance operational efficiency, the utilization of a centralized IT system is actively underway. This technology-driven approach enables stakeholders to assess and leverage synergies effectively.

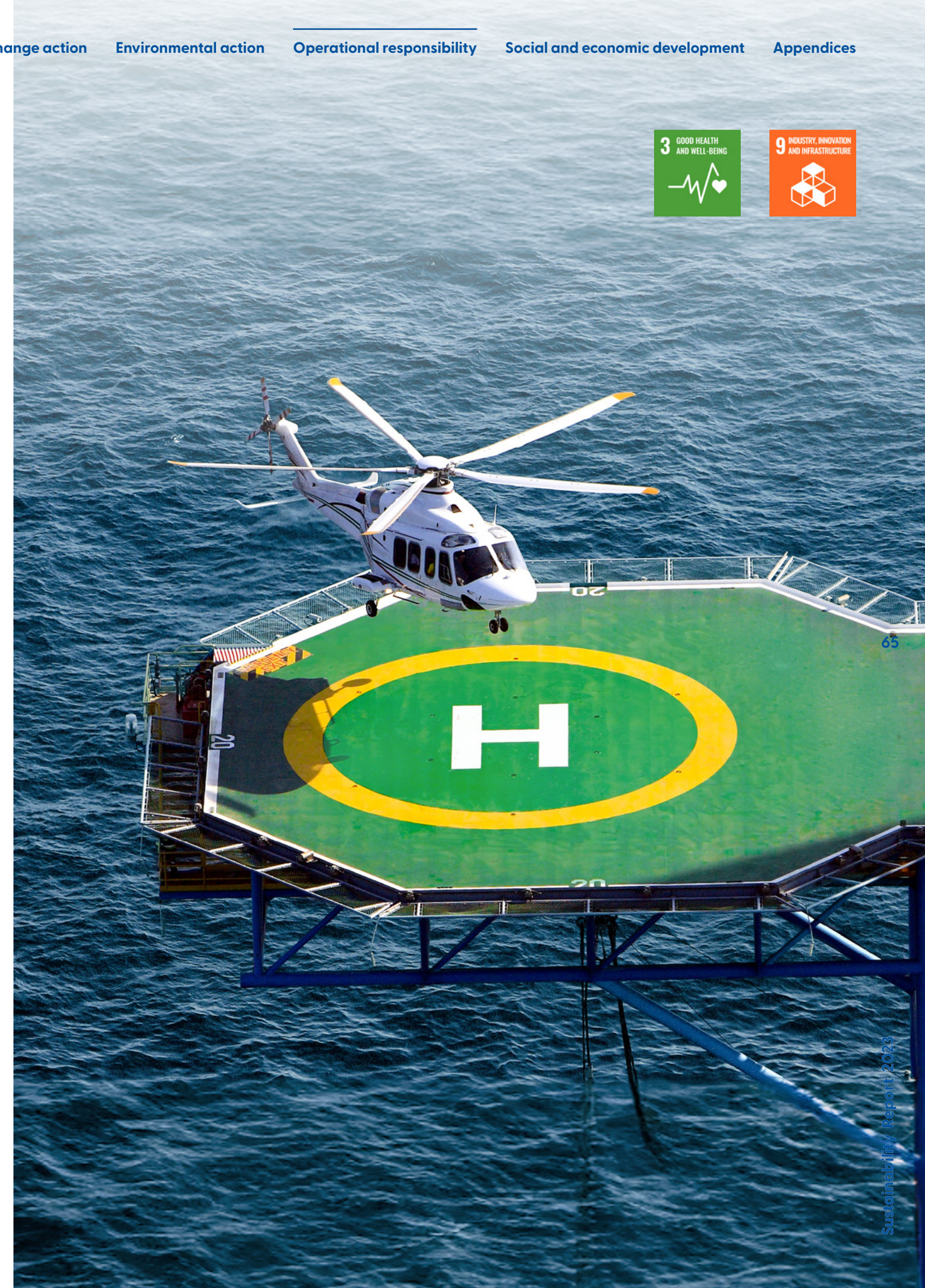
**Upgraded DP2 vessels fleet:** Recognizing the importance of vessel capabilities, the fleet of Dynamic Positioning 2 (DP2) vessels has undergone upgrades to meet the latest standards. This enhancement ensures that the vessels are well-equipped to navigate and operate efficiently.

**Fully operational Joint Operation Center:** The culmination of these efforts is the establishment of a fully operational Joint Operation Center equipped with the latest technology. This center serves as the nexus for coordinated decision making, real-time monitoring and efficient management of offshore supply vessel activities.



# Operational responsibility





Operational responsibility, one of the three pillars of our sustainability strategy, entails safeguarding both our people, including direct employees and contractors and ensuring the safety, security and integrity of our assets. This commitment goes beyond mere compliance and reflects our genuine aspiration to foster a workplace where everyone can thrive, knowing that their safety is our top priority. We believe that operational excellence is vital to achieving sustainability goals and as such, we are committed to continuous performance improvement. Through proactive measures and a focus on best practices, our aim is to not only meet industry standards but to surpass them, setting new benchmarks for safety, efficiency and environmental stewardship.

Our Health, Safety, Environment and Quality (HSEQ) Management System has been certified according to the following standards:

**ISO 9001:2015 for Quality Management Systems**

**ISO 45001:2018 for Occupational Health and Safety Management Systems**

**ISO 14001:2015 for Environmental Management Systems**

**ISO 22301:2019 for Business Continuity Management Systems**

We continuously assess our compliance with the HSEQ Management System by conducting external third-party certification audits. We have maintained the certification across our assets and facilities in 2023.

In addition to third-party certification audits, to ensure the effectiveness of our controls and HSEQ Management System, we conduct internal risk-based audits on a regular basis throughout our different departments.



# Protecting our people

We have designed our processes, equipment and facilities with safety, efficiency and productivity in mind. QatarEnergy's processes and procedures aim to provide clear guidance for the workforce to identify, manage and address operational risks and safety hazards. We believe that this approach helps us to reduce risks and prevent incidents or minimize their impact should an incident occur.


## Personal safety

QatarEnergy's highest priority is to continue to build a workplace safety culture that ensures the health and safety of our employees, contractors, business partners and of the communities in which we operate. This commitment is documented in our Occupational Health and Safety Policy, available in Our Foundational Policies. To continuously improve our safety performance, we rely on robust risk management practices, including risk and hazard identification and mitigation measures. We have several corporate safety standards in place, for example, standard defining the requirements for the permit to work system, job hazard analysis, road safety and radiation safety, among others. We actively pursue initiatives to support our journey towards realizing our vision to become one of the best energy companies in the world in terms of health and safety protection.

We engage our employees and contractors in regular HSE training sessions, toolbox talks and safety moments, to ensure safety information, including learnings from incidents, is cascaded effectively. Our occupational health and safety programs, such as Life Saving Rules (LSR), aim to reinforce behavioral change and prevent occupational incidents. In 2023, we continued with the implementation of the LSRs across all our operated assets, projects and business premises. Based on 2023 performance, our main priority moving forward is to ensure strict adherence to the Permit-to-Work system and Line of Fire protocols. These protocols are currently being upgraded to focus on minimizing risks, ensuring compliance, maintaining consistent safety practices and improving communication, which ultimately contributes to enhancing the overall HSE performance and creating a safe work environment for everyone involved.

We hold annual "CEO HSE Awards" to recognize and celebrate teams and individuals for promoting a solid and sustainable HSE culture within their teams and throughout the wider organization.

## CEO HSE Awards

The QatarEnergy CEO HSE Awards were established to recognize and celebrate those whose contributions have brought step-change improvements to HSE, as well as to safe and reliable operations and wider business performance. These awards are a testament to the internal culture of QatarEnergy, which places health and safety at the center of everything we do.

The awards are open to all employees and contractors and the criteria are described in a corporate procedure and a guideline. To be eligible for any of the CEO HSE Awards, the nominees must meet criteria in any of QatarEnergy's recognition types, such as Doing the Right Thing, HSE Excellence, Demonstrating Care or HSE Collaboration in Action.

Nominations are gathered from all directorates and the final recommendations are vetted by the ELT and approved by H.E. the President & CEO.

The winners of the CEO HSE Awards are recognized as champions who share traits that contributed to HSE excellence across various QatarEnergy business lines. Across the industry in Qatar, there has been an appreciation of the impressive forward-thinking, strong commitment and "above and beyond" efforts of the award recipients.

**In 2023, we celebrated the winners of the 2022 CEO HSE Awards:**

- **HSE Excellence:** The Turnaround Planning team won the HSE Excellence category at Mesaieed Operations for streamlined turnaround activities by introducing a new permit for such activities, saving significant time and effort while maintaining uncompromised safety standards.
- **HSE Excellence:** The Ras Laffan HSE team won the HSE Excellence category for their remarkable work in implementing a biodiversity conservation framework and flagship projects that protect the environment and enhance biodiversity through conservation and sustainability initiatives.
- **Demonstrating Care:** The Drilling and Completions NORM management team won the Demonstrating Care category for the management of naturally occurring radioactive material resulting in incident-free surveys, reactivation of shut-down wells and improved reputation.
- **HSE Collaboration in Action:** The electronic Safety Observation Card (eSOC) and electronic Pre-Startup Safety Review (ePSSR) teams in Mesaieed refinery operations won the HSE Collaboration in Action category for their outstanding work on digitalization of safety management.
- **Doing the Right Thing:** Zoe Royle won the Doing the Right Thing category for being a champion for HSE at Dukhan English School, prioritizing staff and student health by ensuring safety and wellbeing of all.


In 2023, a short-term strategy aimed at improving HSE performance was implemented. It started with a workshop for focal points in the first quarter of the year. This workshop disseminated the strategy outlined in the revised Corporate Procedure for HSEQ and Business Continuity Management (BCM) Objectives Planning.

This procedural update empowered QatarEnergy directorates to establish two-year HSE objectives aligned with the corporate HSE vision, incorporating strategic themes and enablers. Subsequently, activity plans tailored to address specific HSE risks within each directorate were identified. These activity plans will be progressively executed to achieve the established objectives.

During 2023, QatarEnergy also improved its capacity to manage contractor HSE by allocating additional resources to the corporate-level Contractor HSE Management function. Concurrently, a comprehensive review and update of existing documents on managing HSE in contracts were undertaken, exemplified by the revision of the Corporate Standard for Managing HSE in Contracts and the Corporate Procedure for Enhancing Contractors' HSE Performance.

In 2023, MIC effectively instituted the 7 Star HSE Audit Program for all contractors. This program involves an in-depth examination of contractors' health and safety management systems and associated arrangements.

The audit focuses on the key aspects of managing occupational health, safety and environmental performance and conditions in the workplace and offers a structured path towards continuous improvement. It serves as a catalyst for continual improvement among contractors, fostering leadership commitment, active participation, motivation and healthy competition. The program has proven to be instrumental in elevating the overall HSE performance of contractors, reinforcing our dedication to safeguarding the wellbeing of our people.

## People are empowered to intervene

In 2023, a significant gap in safety observation reporting surfaced when contractors encountered difficulties accessing the SharePoint system. This limitation hindered their ability to report observations effectively. To address this issue, we implemented an electronic solution by adopting the Safety Culture iAuditor software.

iAuditor has become an instrumental program, serving both as a platform for reporting observations and conducting inspections and audits. This system offers unparalleled flexibility, now allowing on-site personnel to record observations and assign actions to any staff member or contractor. To enhance accessibility and user-friendliness, we have distributed hard-copy Safety Observation Cards to personnel and complemented them with Zone 1 iPads for on-site reporting. Moreover, standard iPads within staff accommodations were also equipped with the iAuditor software.

Another pivotal component of this initiative is the "Stop Work" mechanism, which empowers every individual on-site, regardless of their position or employing company, to voice concerns and intervene in the event of unsafe activities or conditions. Notably, our approach fosters a no-blame culture, even if observations are later determined to be invalidated upon review.

In cultivating a heightened safety awareness, we have introduced the QatarEnergy safety H.A.T. program. This acronym encapsulates three fundamental aspects guiding our approach to staying vigilant and mitigating hazards.

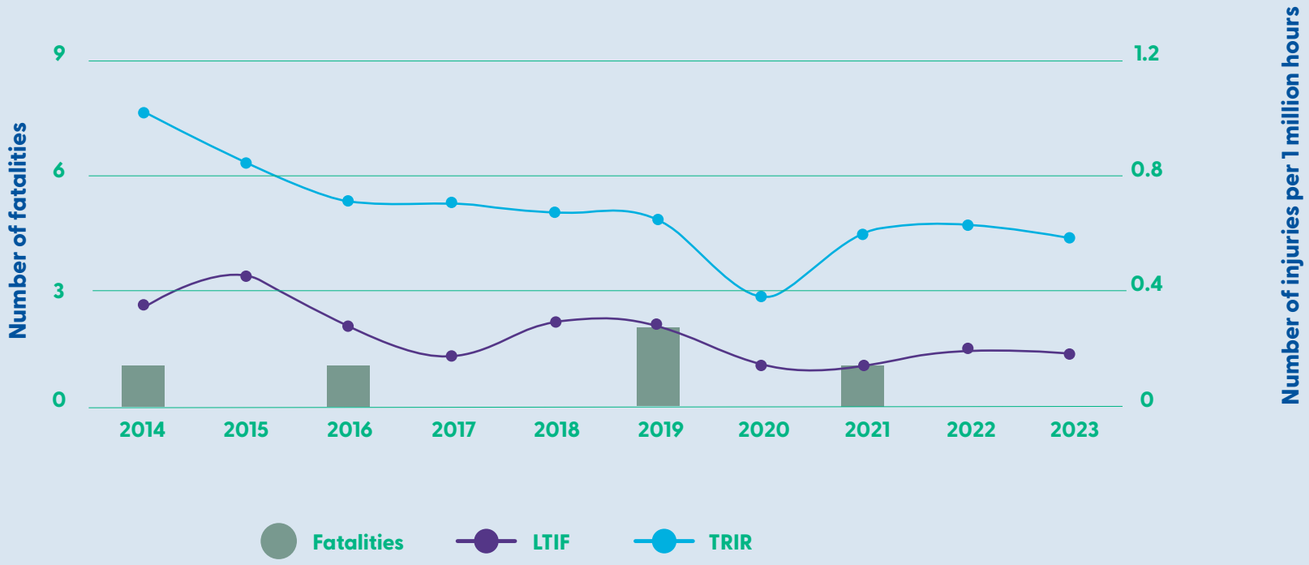
Firstly, the (H) Hazard Report, embodied in the Safety Observation Card, encourages active participation from all personnel. Second, the (A) Approaching Others aspect emphasizes the importance of collaborative safety efforts. Finally, the cornerstone of our safety H.A.T. program, denoted by (T) Take Time, underscores the critical necessity of careful consideration and mindfulness in our daily operations.

This comprehensive framework ensures that identifying and reporting hazards becomes a shared responsibility among all individuals involved, fostering a proactive safety culture across QatarEnergy.

We recorded zero work-related fatalities among our employees and contractors in 2023, the same as in 2022. We are committed to maintaining a zero-fatality record and enhancing our overall safety performance by sustaining the progress made by sharing lessons learned from incidents, implementing the LSRs and ensuring compliance with the Permit-to-Work system and Line of Fire protocols.

The number of recordable injuries among our employees and contractors slightly decreased in 2023 compared to 2022, resulting in the overall Total Recordable Injury Rate (TRIR) of 0.52 in 2023 compared to 0.56 in 2022. The lost-time injury rate (LTIF) in 2023 remained relatively flat compared to 2022. Our analysis showed that hand injuries were among the most frequently occurring; therefore, we are working on establishing a hand protection program to reduce hand exposure to potential hazards.

### Personal safety performance



## Road safety

At QatarEnergy, we prioritize road safety as a fundamental aspect of our operations, aiming to create a secure environment for everyone using the roads on behalf of our organization. This commitment extends to our drivers, as well as to pedestrians, cyclists and fellow motorists. In 2023, we implemented a Road Safety Standard designed to minimize the likelihood of accidents and reduce the severity of injuries. Adherence to the Road Safety Standard is crucial for all journeys, ensuring compliance and safety for drivers, passengers and third-party road users.

In 2023, we also implemented an In-Vehicle Monitoring System (IVMS) across our fleet of over 900 vehicles. This system serves as an objective tool to monitor how and where our vehicles are used, as well as the behavior of our drivers. QatarEnergy's IVMS uses staff members' access cards to electronically unlock vehicles and identify drivers, eliminating ambiguity and facilitating quick response in emergencies.

The IVMS tracks driving habits that increase accident risks, such as speeding and reckless driving, providing data for preemptive and reactive coaching. Additionally, it monitors seatbelt compliance, contributing to an overall safer driving culture.

QatarEnergy is a permanent member of the National Traffic Safety Committee, actively participating in the State of Qatar's road safety agenda. Locally, we inaugurated the Qatar Road Safety Working Group (QRSWG), bringing together key organizations to share best practices and enhance road safety nationwide. Internationally, we joined the Global Road Safety Partnership (GRSP), aligning with a global community committed to addressing road crash-related health crises.


**Road safety: personal control and decision-making**

**Jacqueline Maria Maitland**
Assistant Manager, Corporate Identity and Communications

Driver fatigue took the life of my beloved mother. It is this deep personal loss that drives my passion for road safety and gives me the courage to intervene when I see people not following the driving laws, putting themselves and others at risk. I never miss an opportunity to remind people that when the engine is on, the phone needs to be off. Regardless of the destination, nothing is worth losing a life by becoming distracted, speeding or not wearing a seatbelt. It is even worse if we don't recognize our personal responsibility as drivers to look after our young people and make sure they are secure in a vehicle. These are all contributing factors in road injuries and fatalities, and each are within our personal control and decision making. Transport Safety is one of our nine Life Saving Rules at QatarEnergy. Please follow the rules so everyone can get home safely.

## Occupational health

In 2023, QatarEnergy implemented several initiatives aimed at enhancing the wellbeing of our workforce. The introduction of a health performance indicator program standardized the reporting of lagging and leading indicators across both onshore and offshore facilities. This implementation, occurring in two stages, is anticipated to yield results in the coming years, contributing to improved consistency in reporting and overall health and safety performance.

Within the workplace, especially in petrochemical operations, various occupational health agents pose risks to the wellbeing of our workforce. These agents are systematically categorized into five overarching classes: physical, chemical, biological, ergonomic and psychosocial domains. Each category encompasses potential hazards that necessitate meticulous attention and robust mitigation strategies to safeguard our employees. To address these risks, in 2023, QatarEnergy implemented an Occupational Health Risk Assessment (OHRA) program designed to identify and assess health risks associated with these agents. This systematic approach includes the implementation of effective control measures to minimize health risks to as low as reasonably practicable (ALARP). Regular reviews of the effectiveness of these control measures through health risk assessment programs ensure the wellbeing of our employees in the face of potential workplace hazards.

Through Refining Operations' wellbeing support initiatives, 92% of staff completed scheduled medical health check-ups by 31 December 2023.

Targeted initiatives to improve protocols during the summer of 2023 resulted in zero safety incidents due to excessive heat or exhaustion, showcasing QatarEnergy's proactive approach to occupational health and safety.

## Caring for our people: heat stress management

The importance of prioritizing worker wellbeing cannot be overstated, as it enhances the quality of the work environment, while at the same time it has a direct impact on the health, safety and productivity of our workforce. We recognize the significance of promoting a culture that fosters the wellbeing of our employees and contractors. One crucial aspect of this commitment is heat stress management, acknowledging the potential serious health impact of heat-related conditions in our operational settings.

To safeguard the wellbeing of QatarEnergy staff and contractors, a comprehensive set of preventive measures and administrative controls has been established in prior years and further enhanced in 2023. The Safe Summer Working Practices are particularly applicable for those whose work required being outside during the hot period of the year:

- **Prescribed work suspension hours:** Adherence to prescribed work suspension hours, aligned with the issued daily heat index status, aims to ensure that work activities are adjusted to mitigate the impact of elevated temperatures (in accordance with heat stress control and preventative recommendations provided in the table on the right).
- **Protective measures outdoors:** Workers are encouraged to use sunscreen and keep their heads covered while working outdoors, minimizing the risk of sun-related health issues.
- **Allocated work/rest intervals:** QatarEnergy and contractors allocate work/rest intervals as per set guidelines, ensuring breaks in air-conditioned or shaded areas that are cooler than work areas by at least 10 degrees Celsius (°C) to 15°C. This includes the consumption of cool fluids for hydration.
- **Job rotation:** For tasks with the potential for heat stress, workers are organized into two groups to facilitate job rotation in and out of the area. Rotation frequency is increased for heavy workloads and critical tasks.
- **Provision of food and water:** QatarEnergy and contractors ensure the availability of suitable food and water supplies, promoting a well-balanced diet and sufficient fluid intake among workers.
- **Acclimatization process:** A gradual physiological adaptation process, known as acclimatization, is implemented as per set guidelines over several days to enhance workers' ability to tolerate heat stress.
- **Fluid intake management:** Cool water or isotonic drinks approved by a physician are provided and workers are encouraged to drink fluids regularly to prevent dehydration. A buddy system is adopted to promote mutual support among workers.
- **Early signs recognition:** Workers are educated to recognize early signs of heat stress, such as dehydration indicators, weakness, fatigue, confusion, headache and rapid breathing. Prompt measures, such as increased water intake and rest, are advised.
- **Maintenance of healthy lifestyles:** Emphasis is placed on maintaining healthy lifestyles, acknowledging the holistic connection between physical wellbeing and overall health.

**Heat stress control**

| Heat index, °C | Activity: rest cycle, min | Water requirement | Heat stress preventative recommendations |
|---|---|---|---|
| **27–31** | 50:10 | 1 cup in 20 mins | Continuous visual monitoring of workers in direct sun and heavy work |
| **32–38** | 40:10 | 1 cup in 20 mins | No working alone |
| **39–49** | 30:10 | 1 cup in 15 mins | Work under shade |
| **50–53** | 20:10 | 1 cup in 10 mins | STOP elevated work and confined space work |
| **>54** | | | **All work stopped** |

# Protecting our assets

Recognizing the significance of safeguarding our critical resources, we prioritize the implementation of strategies to ensure the resilience and longevity of key assets. This involves deploying security protocols, risk mitigation measures and protective initiatives. By fortifying our assets against potential threats and challenges, we maintain a steadfast dedication to asset integrity and security.

## Process Safety

Process safety is a key component of our overall safety management system, focusing on preventing and containing major hazards such as fires, explosions and releases of hazardous material. In a continuous commitment to ensuring the safety, reliability and sustainability of our operations, QatarEnergy has undertaken a multifaceted approach to process safety. This involves a collaborative effort in HSE risk assessment, implementation of special control measures, development of emergency communication protocols and joint emergency response drills. This approach forms the foundation for the comprehensive Process Safety Management (PSM) system implemented across QatarEnergy assets. Our suite of risk management and formal safety assessment standards and procedures aims to allow us to assess all process-related hazards and risks. These include Hazard Identification (HAZID) and Hazard and Operability Study (HAZOP) which allow for early inherently safer design of new facilities and modifications to existing ones.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Our Major Accident Hazards Management (MAHM) Standard defines what these hazards are and requires that all major accident hazards throughout the lifecycle of the facilities and installations are identified and assessed and associated risks are reduced to a demonstrable ALARP level by application of robust major accident hazards management. Projects and operational facilities and installations have embarked in the process of development of the MAHM reports. The BowTie analyses for identified major accident risks have been developed to provide greater visibility to the ELT that the risks of major accidents are being managed effectively. The BowTie diagrams illustrate the controls that need to be in place and maintained in the future. QatarEnergy aims to enhance the effectiveness of our current practices by integrating safety critical barriers and processes within the operating management systems. We have completed the development and rollout of our HSE Risks Assurance and Validation Program and are currently in Phase 01 - Baseline Assessment of all QatarEnergy HSE Risks and Barriers.

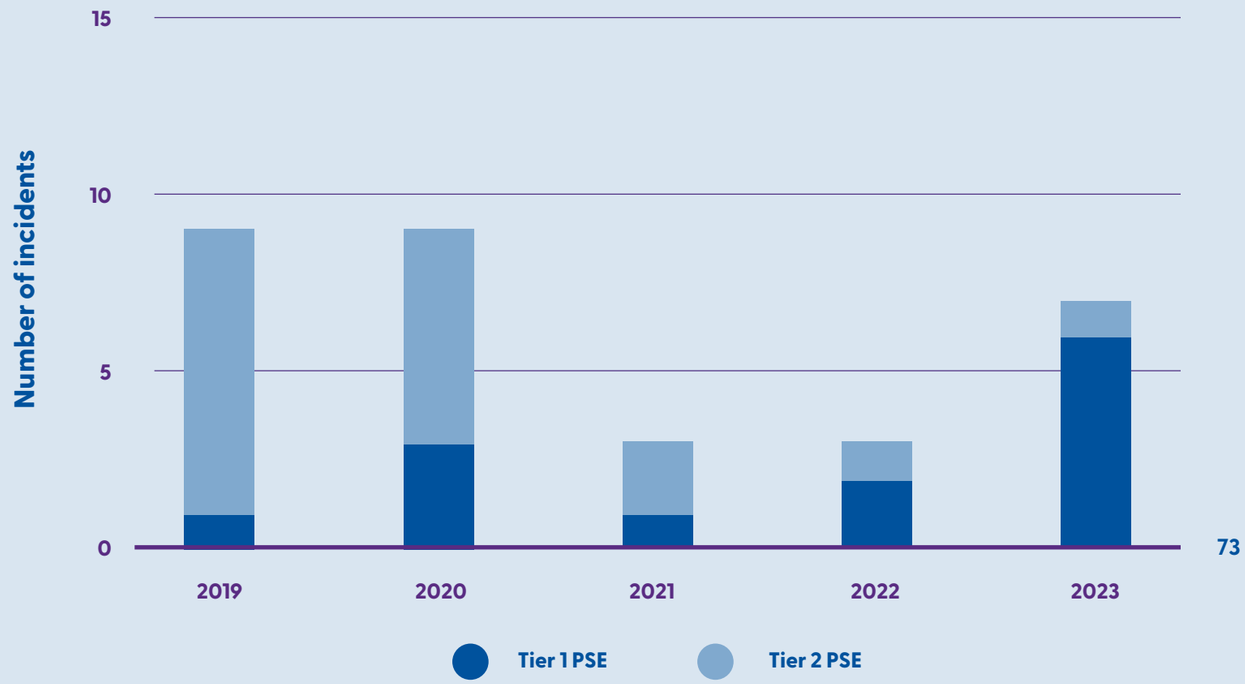
We have detailed emergency procedures to respond to major incidents including spills (please refer to Emergency preparedness, business continuity and organizational resilience section of this report). We test these procedures regularly to ensure that they are understood, suitable, effective and up to date. We collect, collate and analyze key performance indicators relating to process safety, which gives us an insight into the performance of our management systems.

In 2023, QatarEnergy introduced and rolled-out a set of ten core Process Safety Fundamentals (PSFs), aimed at enhancing the safety of the organization's assets, projects and operations and to support the implementation and effectiveness of the PSM System. These PSFs address behaviors related to critical activities and tasks towards an improved process safety culture, which emphasizes critical tasks for an upgrade in behaviors and operational activities towards achieving operational excellence. The PSFs provides guidance on basic principles to prevent, reduce and ultimately eliminate high-severity process safety events (PSE). The initiative seeks to enable front-line workers, supervisors and managers to raise concerns openly and transparently and emphasize existing good practices to prevent PSE from escalating into catastrophic events.

To support this commitment, a comprehensive and sustainable PSM Awareness and Training program was launched in the third quarter of 2023. During 2023, PSM Awareness sessions were conducted to engage the Senior and Line Management teams and more comprehensive 'train-the-trainers' sessions to subject matter experts (SMEs), intended to help ensure the program's sustainability over the years. The PSM Awareness and Training program will continue until 2027, with upcoming sessions for the management and the front-line workers. Additionally, computer-based training and further sessions conducted by trained SMEs will also be used to reinforce the process safety culture.

In 2023, we also launched a new set of reformulated PSM leading KPIs, focusing on the PSM system elements that presented the most challenges based on the analysis of Tier-1 and Tier-2 process safety incidents from 2017 until 2022, together with key leading KPIs recorded from 2018 until 2022. The new set of leading KPIs are focused on five PSM system elements: Element 2 - Compliance with Standards; Element 8 - Operating Procedures; Element 10 - Asset Integrity and Reliability; Element 13 - Management of Change; and Element 15 - Conduct of Operations.

## Process safety performance: Tier 1 and 2 PSE




In 2023, we recorded six Tier 1 PSEs and one Tier 2 PSE, compared to two Tier 1 PSEs and one Tier 2 in 2022 across our operated assets. The analysis of all hazardous materials released indicated that for many of the incidents the quantities released were minor, mostly resulting from valve failures, corrosion pinholes, flanged connection failures, rotating equipment failures and small fitting failures. To improve our process safety performance, we adopted several strategic decisions and multiple actions. The actions are aiming to address the root causes of these process safety events with major focus in the following PSM system elements: Element 2 - Compliance with Standards; Element 7 - Hazard Identification and Risk Analysis; Element 10 - Asset Integrity and Reliability; and Element 15 - Conduct of Operations.

QatarEnergy is committed to a visible process safety culture and will continue to monitor how the PSM system is functioning by conducting regular evaluations and assessments, developing solutions, processes and tools and pressing for continued improvement. Moreover, a Process Safety Steering Committee has been established which will monitor the PSM system performance and take strategic decisions for its continual improvements.

# Emergency preparedness, business continuity and organizational resilience

Our resilience is our ability to absorb, survive, respond, prevent disruption, ensure service and operational continuity, adapt to changing environments and capitalize on those changes transitioning them to prosperous operational and market opportunities.

We believe the resilience of our people, organization, services and operations is fundamental to our continued success and we strive to encode that character and spirit in our DNA. Our culture of resilience can be seen in our passion for safety, quality, continuity and our courage to care for one another and our environment. Our focus on resilience is driven by our values. It promotes mutual respect and inspires us to continually grasp for excellence in accordance with Qatar's national objectives and in our ongoing commitments to our customers and stakeholders.

We take comprehensive efforts to prevent incidents that could compromise safety and to address business disruptions. If major incidents do occur, we have detailed emergency procedures to respond to them. Our organizational resilience includes, among others, crisis management, emergency preparedness and response, business continuity planning and information technology resilience. An integrated fire and rescue emergency response plan and related resources are available and considered top emergency response priorities. We dedicate resources to developing and implementing the organizational resilience, so that in the case of an event, we can:

- Respond in a timely and effective manner and minimize any potential business disruption.
- Provide accurate information to public authorities about remediation actions taken to protect or re-establish health, safety and environment.
- Continue with the delivery of products and services.

Our comprehensive emergency response plans aim to be compliant with both national regulations and international best practices. We routinely prepare for and practice our emergency response through emergency exercises and drills. Some of the scenarios covered by our emergency response plans include leaks or spills of hydrocarbons, fire or explosion, transportation incidents, structural collapses and natural disasters. Preparation of emergency response plans is embedded in the project phase covering all major accident hazards. These plans are then reviewed and updated to ensure that they reflect regulatory changes, newly identified hazards or changes in existing hazards, significant engineering changes, significant external changes, changes in resources or organizational structures and feedback from tests, drills and exercises, as well as feedback after a major incident.

The crisis and emergency focus for 2023 was based around the development, adoption and dissemination of new processes to align with international best practices, while collaborating and sharing our expertise across the energy sector, aiming to deliver a best-in-class approach to early crisis mitigation. Supporting several projects to align the industry stakeholders in incident management systems, internally, our directorates worked together to ensure a future state of readiness in which industry players work together to mitigate impacts collectively during unexpected situations, thereby supporting the resilience of the State of Qatar.

Internally within QatarEnergy, crisis management sessions were held with every directorate at the executive level to embed our new practices within the organization from the top. Simultaneously, engagement across our primary response entities ensured that front-line staff in adverse situations are familiar with these new practices.

In 2023, we implemented the Istijaba project to provide world-class rapid, safe and effective emergency responses.

**Istijaba Project: Enhancing incident management and environmental responsibility**

**Elfatih Ahmed Mmohamed**
Emergency Preparedness Coordinator, Fire Protection & Response Planning

In 2023, we implemented the Istijaba project at QatarEnergy assets and at the energy sector companies. The Istijaba Program, grounded in an all-hazards approach, significantly advanced our incident management by integrating international best practices and technologies, including a computer-aided dispatch and an emergency management information system. These innovations will not only boost our emergency operational efficiency and risk mitigation efforts, but also emphasize our dedication to minimizing the impact of environmentally harmful incidents.

The project also sparked a cultural shift towards increased environmental awareness and emergency preparedness among our personnel. This strategic alignment of our emergency management practices with our sustainability objectives, underscores the Istijaba project as a pivotal milestone in our pursuit of resilience and environmental responsibility.

Bringing together the training, development work and energy sector engagement efforts, Exercise Platinum Shield, a full mobilization exercise, was jointly conducted in 2023 between QatarEnergy LNG, RLIC and the crisis management functions of both organizations, including involvement of CEOs of both QatarEnergy and QatarEnergy LNG. The exercise was successful in demonstrating the process for response at all levels of the organization and provided confidence to our senior management that we remain able to respond swiftly and collaboratively, should the unexpected occur.

In 2023, a corporate-led project to transition crisis management and emergency response for shipping activities was also undertaken. Shortly after completion, the process of monitoring and escalation was tested as global security became threatened within the region, resulting in a swift assessment of impacts of the crisis on the energy sector's delivery and supply chain routes.

Exercise Watan, a major incident response exercise series, was designed to provide an opportunity for emergency services (QatarEnergy Fire and Rescue Service and Commercial Security) and Dukhan's Incident Management Team to initiate and maintain effective response, command and control should such a volatile incident occur in Dukhan. A successful Tier 3 exercise was conducted in 2023.

We have also initiated the Muahhad project in response to real incidents involving multiple offshore operators and national entities. It includes a study that aims to evaluate existing systems, recommend improvements aligned with regulations and international standards and unify all offshore operators under a single emergency management system. The anticipated completion date for this study is set for the end of 2024, marking a significant step towards ensuring a coordinated approach to incidents that may impact offshore assets in the State of Qatar.

In 2023, we developed a systematic, long-term, holistic implementation model and maturity strategy to align with international standards on organizational resilience. The purpose is to improve and build upon existing strengths and further our resilience with supporting ethos, policy, framework and implementation guidelines to ensure we achieve our goals.

Our resilience journey is based on cross-functional, multidisciplinary and integrated common approaches across QatarEnergy. We actively seek input and feedback incorporating the best practices across the company, from energy sector partners and other stakeholders. Our attention and focus are on:

- A standards-based approach to holistic organizational resilience
- A sustainable resilience framework with supporting multilateral guidance
- Integrated business continuity and response management systems
- Building resilience partnerships and discipline communities of practice
- Real-time performance and readiness reporting


QatarEnergy

# Operational excellence

In 2023, QatarEnergy continued its commitment to promote operational excellence through our ongoing Operational Excellence (OE) Program. This program is designed to support our efforts to enhance our operations and improve our overall business performance daily.

Through the OE program, we are reinforcing our culture of continuous improvement that encourages our employees to identify areas for optimization, implement best practices and streamline our processes to achieve greater efficiency and effectiveness.

In 2023, we established a five-year strategic plan, prioritizing areas for improvement across our assets and putting plans in place to implement them. This approach, powered by Continuous Improvement, has yielded significant results in the core work processes of Asset Integrity – Process Safety Management, Reliability & Maintenance Execution and Production Excellence.

Across our operated assets, the Managing Threats and Opportunities process (MTO) is used as a standardized framework ensuring a structured approach to identify, prioritize and mitigate threats while capitalizing on opportunities for sustainable operations. Launched in Mesaieed Operations as a pilot in 2019, it has been replicated across our operated assets in 2023. This process engages frontline teams in identifying risks and threats, quantifying them and implementing short-term mitigations while developing long-term solutions. MTO provides a platform for leadership oversight through a prioritization mechanism, governed by the Reliability and Integrity Steering Committee (RISC), ensuring sustained process efficiency and fostering broader strategic discussions.

In 2023, we launched a new opportunity realization process (IDEA) as an effective means of managing business opportunities being identified through our drive for Continuous Improvement, which is essential in ensuring their successful delivery, with value realized for our operated assets and QatarEnergy. IDEA (Identify; Define; Execute; Assure) is a standard process to manage and mature business improvement opportunities from identification through to assurance, ensuring implemented improvements are sustainable. This enables us to effectively analyze improvement opportunities; define them clearly by establishing the business case; execute them efficiently and measure performance gains; then to provide assurance that the improvements are being sustained with the value generated being captured.

## IDEA follows a four-step decision-driven process:

### Identify

- Is there a strong business case?
- Are the value drivers understood?
- Is the scope clear?
- Are the risks and potential rewards understood?
- Is there sufficient data to take a decision?
- Is this a priority?

1

- Opportunity approved
- Prioritized
- Leader assigned

### Define

- Is the proposed approach “fit for purpose”?
- Is the scope well defined?
- Are accountabilities, targets and deliverables clear?
- Are risks assessed and mitigations defined?

2

- Methodology approved
- Scope defined
- Targets set

### Execute

- Is the intent being met? Are risks being properly managed?
- Are milestones being achieved?
- Is value being captured?
- Is performance improving and sustaining?

3

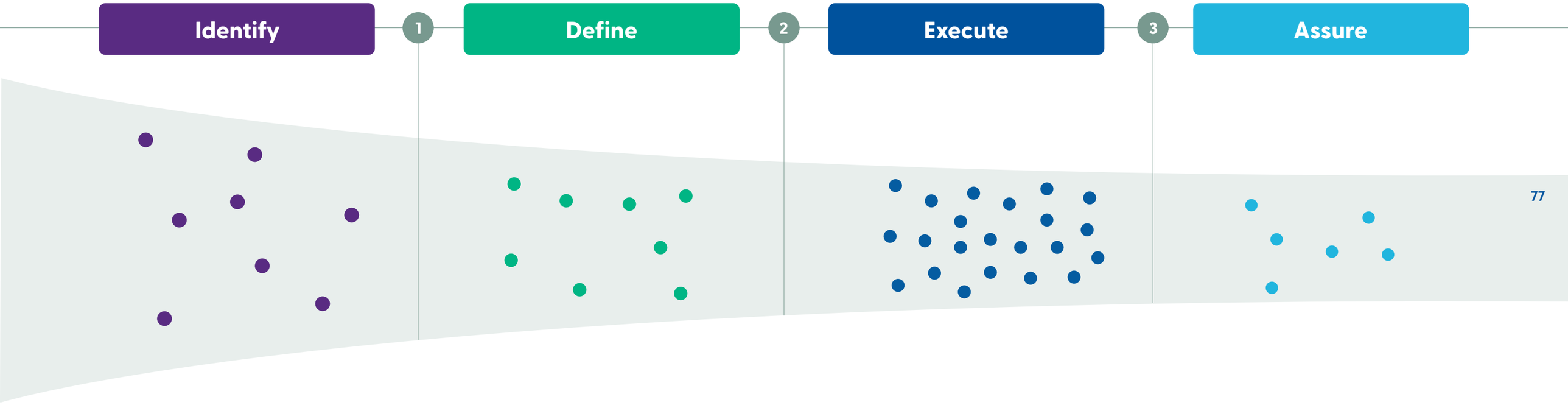
- Scope delivered
- Targets met
- Performance sustained >3 months

### Assure

- Is the process sustaining?
- Has performance improved?
- Is ownership successfully transferred?
- Are assurance accountabilities clear?
- Is value being generated?

This approach enables us to capture opportunities across a broad spectrum of avenues, then to prioritize and categorize them according to their potential benefits and effort required and thereafter to ensure the appropriate level of governance is applied. The visualization of the process as an opportunity funnel enables us to quickly quantify the load on the organization, identify slow movers or blockers and to address these accordingly. Data collection and visualization is being realized through the ongoing development of a digital tool, enabling effective management of the process with more than 500 business improvement opportunities currently being managed through the funnel, unlocking and realizing significant value in Operations and to QatarEnergy.

As a further development in our digital capability, in 2023 we developed our maintenance dashboard, which enables us to collect data in real-time from all operated assets and visualize it to drive process improvement. This tool enables us to measure our performance against best-in-class, internationally benchmarked targets, identifying those areas that require enhanced focus. The level of granularity this tool enables is unlocking value across our assets and the level of automation it provides is delivering significant savings in efficiency and will be further enhanced in 2024.




Operational Excellence enables us to achieve our vision and strategy

**Ahmad Saif Al-Sulaiti**
Executive Vice President, Operations

Operational Excellence puts into action our commitment to the corporate strategy and our support in achieving QatarEnergy's vision to be one of the best energy companies in the world. It lives at the heart of our values, which underpin everything we do and how we do it. It operationalizes our approach to achieving our objectives through a structured framework to deliver safe, reliable and efficient operations. The achievements of 2023 will continue to drive us forward on our journey in the years ahead.

# Digitalization and cybersecurity

QatarEnergy has implemented several initiatives that showcase our commitment to embracing technology for excellence, efficiency and environmental responsibility.

In 2023, QatarEnergy significantly enhanced its digital capabilities, particularly in real-time monitoring and optimization of production and drilling operations. Building on previous digitalization efforts, the Real-Time Operations Center (RTOC) now incorporates additional real-time data accessible to key personnel. Advanced analytics and real-time surveillance are employed in drilling operations, continuously optimizing processes, reducing drilling time and avoiding operational issues. This real-time data is utilized for exception-based surveillance, efficient reservoir management and production optimization, contributing to reduced emissions and environmental impact. The expanding usage of the RTOC in collaborative production review meetings reflects efficiency gains, with potential sustainability improvements through enhanced analytics and monitoring.

In 2023, we also raised awareness on the in-house adoption of oil fingerprinting technology (please refer to Protecting habitats and biodiversity section of this report), supporting various applications from exploration to production and environmental management. This technology enhances in-house capabilities, aligning with QatarEnergy's commitment to excellence, providing expertise support and yielding significant cost savings.

In the realm of lifting equipment digital inspection and certification software, QatarEnergy has initiated the project to automate and digitalize the lifting equipment certification process. This strategic move aims to eliminate manual paper systems and enhance cost-effectiveness.

QatarEnergy also embarked on a Paperless Patient Health Education Project in 2023, leveraging QR code technology to replace the traditional paper-based approach. This digital transformation ensures timely accessibility of health information. The initiative efficiently provides patients with up-to-date, accurate health education content, reducing paper use and color printing for environmental sustainability. The shift from paper to digital also minimizes physical contact, reducing the potential spread of infections in waiting areas and fostering a safer healthcare environment.

QatarEnergy is committed to protecting data and systems that help us deliver on our mission. We continuously review the implemented controls to ensure effectiveness and highlight any improvement opportunities when required. In 2023, QatarEnergy continued to invest in cybersecurity capabilities to address emerging threats and improve its cyber resilience.

At QatarEnergy, we recognize that cybersecurity is a collective effort and we work with our industry partners and regulators to improve our cyber resilience, our industry partners' cyber resilience and the communities we work with. QatarEnergy adopts a continuous improvement approach to cyber security as threats, underlying technologies and regulatory requirements keep evolving.

QatarEnergy demonstrates solid cyber security maturity against the industry framework. Our Information Technology and Operation Technology systems have been subject to multiple audits and security testing to identify and treat risks. Throughout 2023, we had an elevated focus on increasing staff awareness of cybersecurity and data privacy.

# Our look ahead

In 2024, QatarEnergy is planning to undertake the following:

### Resilience competencies

Continue to enhance Contractor HSE Management capabilities through further resourcing of the function and development of more governance documents.

### Contractor HSE

Hold the annual CEO HSE Awards to recognize teams and individuals who contributed excellently to HSE in the preceding year.

### Annual CEO HSE Awards

Focus on resilience by reviewing and developing crisis support plans across every directorate; training and exercising all corporate members to fully embed the procedures; and demonstrating implementation through corporate crisis management exercises, while providing familiarization to all primary and alternate crisis management members.

### Operational Excellence

Deliver a consolidated and integrated approach to crisis, business continuity, planning and emergency response, with a focus on betterment of core resilience competencies.

### Crisis Support Plans

Leverage cross-directorate synergies in our core work processes, re-framing OE to drive improved collaboration and business performance by taking a Management Systems approach.

# Social and economic development



Social and economic development is the third pillar of our sustainability strategy (please refer to Our sustainability strategy section of this report). Aligned with the State of Qatar's NDS 3, QatarEnergy actively supports the national vision of developing a future-ready skilled and productive workforce. Furthermore, we are also enabling growth in private and mixed sectors through our dedicated efforts to develop local supply chains. We also pursue national ambitions on social cohesion and improving the quality of life of all around us. Rooted in the core belief of creating value for all, our commitment to contribute to social and economic development extends beyond our business activities.

With our people enabled and inspired to participate, our partners working alongside us and society standing together, we collectively have a ripple effect for the benefit of all.

# Enabling and inspiring our people to participate

At QatarEnergy, our people are at the core of what we do and achieve. Without their contributions we would not be able to drive economic growth, uphold our operational responsibilities, advance our environmental and climate goals or contribute to community and societal wellbeing. We are cultivating a workforce that embraces sustainability as intrinsic to our business objectives and corporate strategy, while ensuring that the workforce is enabled to participate in delivering on these. This will empower our people to become influential enablers at work.

QatarEnergy's refreshed People Agenda reinforces the role of our people in supporting our objectives and strategy. It also emphasizes how our people are a key enabler of the success of our business.





QatarEnergy

## Enabling our people to be part of the energy transition journey

We refreshed our People Agenda to sharpen our focus on world-class human resources and capabilities, which is one of the key enablers of our corporate strategy (please refer to Vision and corporate strategy section of this report). The initiatives within the People Agenda are summarized into three focus areas, each supporting our journey to the successful achievement of QatarEnergy's vision.

### To become one of the best energy companies in the world

**PEOPLE AGENDA** — WE GROW TOGETHER

| | | |
|---|---|---|
| **Growing talent and resourcing** | This focus area centers on growing a highly capable and motivated workforce, with an emphasis on Qatari national development. | This effort aims to drive talent development through integrated solutions that enable the growth of the company's capabilities. This approach includes the establishment of job families to support professional development and deployment by building a network of employees with similar backgrounds and professional interests to share knowledge as well as generate access to learning and development programs. It also includes the Leadership Development Agenda with coaching for leaders and a sector leadership series amongst other programs, strengthening the efficiency of our talent acquisition and the operationalization of succession planning across QatarEnergy directorates. | **What will success look like?**<br>· We have the right number of people with the required competencies.<br>· We develop the competencies of all our employees.<br>· We improve our leadership capabilities.<br>· We value the diversity of our people as a source of strength. |
| **Driving organizational excellence** | This focus area drives sustained performance within QatarEnergy: its structure, processes, integrated systems, policies, people and culture. | Examples of initiatives in this focus area include enhancing human resources efficiency through the digitalization of key transactional processes; the implementation of integrated strategic workforce planning; and the deployment of a contingent workforce framework. | **What will success look like?**<br>· We have a transparent organizational structure which supports the long-term business goals.<br>· We manage change well.<br>· We manage employee processes and data well.<br>· We have clearly defined responsibilities in relation to people processes.<br>· We have robust, transparent and equitable people policies. |
| **Enhancing wellbeing and engagement** | This focus area seeks to enhance the affiliation of employees with QatarEnergy and their commitment to collaborate for improved organizational performance. | An example of an initiative in this effort is the introduction of a company-wide Employee Engagement survey, which will help us to understand how engaged our employees are and how we can improve on this by creating a positive work culture. Other examples are related to the further enhancement of our People Portal, the gateway to employee services, information and resources. In addition, the establishment and deployment of our Talent Mobility Framework will support QatarEnergy talent to grow and share their expertise throughout the company. | **What will success look like?**<br>· We value employee feedback and contributions.<br>· We on-board new joiners such that they feel valued and respected.<br>· We have a positive work environment that encourages open and respectful dialogue.<br>· We recognize and reward high performance.<br>· We have effective and timely customer service. |

# Enabling our people

## Attracting and retaining the right people

Attracting and retaining a talented workforce that actively participates in delivering against our business objectives and implementing our strategy is critical to our success. Our highly capable and motivated workforce has a diverse composition of individuals, each contributing their unique skills and capabilities to our collective success.

We are dedicated to supporting the State of Qatar through comprehensive Qatarization efforts and are supporting the achievement of NDS 3 ambitions by training and developing a highly skilled workforce for the future.

Caring for our people and creating opportunities for them to grow has motivated our people to stay and pursue careers at QatarEnergy. "My Legacy" awards are one indicator of our high retention rates and the motivation of our people to continue being a vital part of QatarEnergy. One key metric we monitor is our voluntary attrition rates. Our voluntary attrition rate for 2023 was 1.8%, highlighting our success in hiring and retaining talent. To further understand the perspectives of our people, our Employee Engagement Survey is crucial. One highlight from the survey was the participation rate of 92% and an overall engagement index of 84, which is above the benchmarked industry norm. Sustaining a motivated workforce is vital for QatarEnergy to create and grow value, not just for ourselves but for the wider community.

## Sharing it forward is our true legacy

Our Long Service Recognition Ceremony "My Legacy" awards and commemorates the achievements of our people who have proudly been a part of QatarEnergy for over 30, 35, 40 and 45 years. The ceremony is held annually under the patronage of H.E. the President & CEO. In 2023, we honored 64 long serving employees. In his opening remarks at the ceremony, H.E. noted QatarEnergy's 50th anniversary and the huge transformations from Qatar General Petroleum Corporation (QGPC), into Qatar Petroleum and then into QatarEnergy. H.E. said: "These transformations were not only in name but also in many of the activities that we are undertaking, making us a bigger and more ambitious organization. And today, we are reaping the fruits of this amazing growth because of all the hard work that you and our colleagues before you have put in. These efforts help us to keep the momentum moving forward on the road to continued, long-term success."

During the ceremony, H.E. thanked the dedication and commitment of the honorees and called on them to continue passing the knowledge and experience they have acquired to the next generation of leaders, ensuring they are given the same opportunities, training, development and mentorship that the honorees received during their careers.

**Progressing through collective efforts**

**Hussain Abdulla Al-Ansi Alyafei**
Assistant Manager, Reservoir Characterization, Operated Onshore Oil Field Development

Thirty-five years with QatarEnergy stands as a testament to what we can achieve when we combine passion with purpose. Together, we've overcome challenges, celebrated victories and turned dreams into reality. This journey is not mine alone; it is a mosaic of our collective resilience, innovation and unwavering commitment.

**Our collective success is due to the relationships we've fostered**

**Hassan Ben Mohamed Zayene**
Simulation Instructor, Gas Operations

I joined QatarEnergy in June 1993 as a field operator and have had the privilege to work at all Dukhan facilities. I was promoted to production supervisor in 2008, whilst working at Arab D Khuff Plant and the acid gas removal plant. It has been an honor and privilege for me to work at QatarEnergy for the last thirty years. Throughout this period I have had immense support from senior management, my managers, both past and present as well as my colleagues. We have progressed together all these years through the support, friendship and kindness that we have collectively shared.

## Skills development and awareness building

We are dedicated to continued development of our people that will enable us to become one of the best energy companies in the world. As part of our efforts to enable our employees to contribute to environmental, social and economic sustainability, we have incorporated targeted courses and learning programs into our annual professional development initiatives. In 2023, the offered courses covered extensive subjects related to climate and environment, sustainable management and practices, social responsibility and governance. Professional development is complemented with awareness-building initiatives, ranging from dedicated team sessions and workshops to utilization of digital screens and staff awareness programs. Collectively these initiatives support knowledge building and skills development of our employees, enabling them to unite behind our sustainability objectives.

Our people are at the core of QatarEnergy's achievements. We focus on equipping talent with the correct tools and resources and providing an environment where our people are motivated to make a difference as well as inspire others. The sustainability challenge has many facets and our people regard it as deep-rooted into what we do. This approach enables our people to actively participate, using their knowledge and experience to make a positive contribution, creating value not only for QatarEnergy, its partners and supply chain, but also for the communities and societies where we operate.

In 2023, we conducted our first dedicated Corporate Social Responsibility training to build in-house capabilities. This training was also attended by selected external stakeholders and partners. Social responsibility themes and selection criteria were successfully embedded in the internal ways of working (e.g., thematic-aligned criteria for sponsorship evaluation) ensuring informed decision-making processes within QatarEnergy, reflecting cross functional alignment with the approved Social Responsibility Strategy.

## Engaging creates alignment and acceleration

Proactive communications is a key enabler of QatarEnergy's updated corporate strategy. Our internal communications network plays a role in supporting improved collaboration, alignment and overall employee engagement. It is important to ensure that our communication is consistent with our brand values and that everyone understands the objectives of our business and sustainability strategies. The network is just one platform that explores better ways to communicate those objectives across the organization. Our communications ambition focuses on how we can reach more people with the goal to increase awareness of our brand and, drive relevance and understanding of the role we play in people's lives.

# Unlocking potential through tools, systems and resources

Hiring the right people and developing the required skillsets is not sufficient to achieve our business objectives and the ambitions set out in our corporate and sustainability strategies. To maximize our human potential, we focus on ensuring that the required tools and resources are also in place. We encourage our people to be involved in developing and updating internal processes, systems and procedures in line with international norms and standards. To ensure that our people have access to the appropriate tools to effectively execute their activities, we aim to remove any barriers which may hinder our collective success. Complementing our awareness building objective, we encourage individuals to identify fit-for-purpose ways of embedding sustainability into their tools, systems and ways of working. Some examples where our people have embedded sustainability in their activities include lab assistants initiating a digital solution to reduce waste, engineers exploring alternative technical specifications to save precious dune sand, procurement teams adapting contractual templates to bring suppliers along on our sustainability journey (please refer to Working with our suppliers section of this report) and many more.

It is when individuals throughout the organization proactively utilize tools and resources and implement ways of working that encompass every aspect of their operations, day-to-day interactions, engagements and decision making, that we will unlock the potential of our people to fully participate – collectively achieving business outcomes within the broader context of our corporate and sustainability strategies.

**Integration is the key to success**

**Muhammad Mughees Sardar**
Sustainability Analyst,
Sustainability Strategy

We have values to hold onto, policies to guide the path and solid sustainability pillars to build on. Yet it is only when every individual, in every team, in every directorate, intentionally decodes what this means for them and then creatively embeds it into their day at work, that the full power of our people will be realized. Just imagine the outcome if they take it even further, touching the lives of their families, communities and society.

# Inspiring our people to participate

## Collaborative learning

Innovation, creativity and a learning mindset is an important enabler of our sustainability strategy (please refer to Our sustainability strategy section of this report). At QatarEnergy, we aim to inspire a learning mindset. We recognize that continuous learning and growth are essential not only for personal and professional development but also to our collective success. We encourage our people to seek out new knowledge, skills and experiences and we provide them with opportunities for ongoing education, training and on-the-job experience. By embracing a learning mindset, we support global sustainability challenges and energy transition ambitions, as our people are better equipped to adapt to change, solve complex problems and innovate.

Working together and learning from each other is essential to achieve our goals. Collaboration is one of the behaviors within our values which we aspire to (please refer to Living our values section of this report). We facilitate collaboration through both formal networks and informal interactions, providing platforms and channels for our people to connect, communicate and collaborate.

By fostering a culture of collaborative learning, we aim to create an environment that inspires our people to contribute and co-create solutions, ultimately driving QatarEnergy to achieve its corporate and sustainability strategy ambitions.

## Shaping hearts and minds, inspires more to participate

We initiated the Integrity Ambassador Program[7] in early 2019 in conjunction with the launch of our Code of Conduct and related policies. The objective of our Integrity Ambassadors was focused on embedding and raising awareness around our Values and the principles and commitments outlined in our Code of Conduct and Foundational Policies. The network grew quickly and by the end of 2023 we had 70 passionate individuals, representing every directorate and corporate department across QatarEnergy.

Members of the program were provided with practical content to share with their respective teams. It was however during their regular group sessions that the added value was found. The interactive sessions were led by SMEs, providing the opportunity for deepened awareness building. Sustainability has consistently been of high interest, resulting in multiple sessions covering themes ranging from climate change to investment in economic development and our society.

The power of inspired individuals is clearly illustrated through the following examples. One of the Heads participating in the session on the social and economic development pillar of our sustainability strategy (please refer to Our sustainability strategy section of this report) arranged for a similar session for his team. Following on from that, the decision was made to broaden the scope to discuss all aspects of the sustainability strategy at the leadership level, specifically delving into what this means for them as leaders in governance. Parallel to these events, one of the Integrity Ambassadors took the initiative to set up a "lunch-and-learn" event. This time two members of different departments collaborated to facilitate the session. The wave continued with one individual dialing-in remotely from a front-line location, reached out with follow-up questions, creating a collaborative bridge around embedding sustainability at their location of work. The ripple effect goes even further, as individuals felt stirred to step forward as volunteers at upcoming environmental initiatives. Here they interacted with employees from other directorates, contractors and even members of society.

Investing in the hearts and minds of individuals has proven its potential to activate our people to the benefit of all.

**Joining the dots is something everyone needs to do**

**Lazni Ahmed**
Integrity Ambassador and Admin Supervisor,
Maintenance Support and Business Services, Dukhan

Everything is connected, but the pathway is not always clear. It is only when we understand the bigger picture and everyone is clear on how they can contribute, that our operational decisions can support our sustainability objectives. I have seen the value curiosity and open discussions have during our department meetings. That is when dots are joined and pathways become clear.

[7] In 2024, QatarEnergy will be transitioning away from the use of its network of Integrity Ambassadors to a wider and direct engagement with all its employees, contractors and suppliers. In doing this, we are extending our ethical culture from a select few to everyone working at and /or with QatarEnergy.

## Motivated to participate in going beyond QatarEnergy

QatarEnergy is aiming at addressing sustainability challenges, which go beyond the energy transition. Our people increasingly demonstrate a commitment to sustainability as inherent to their activities. This commitment encompasses practices which are environmentally, socially and economically sustainable. Our people are taking great initiative and are applying their knowledge and experience to explore options and identify appropriate solutions, which will make a difference not only for QatarEnergy but also for our stakeholders.

The efforts and contributions of our people in supporting the global energy transition needs through our world-class projects and operations highlight the motivation of our people to continue working on sustainability challenges. Beyond our operations, our people are making a difference through collaboration and sharing of knowledge and experience with others, including the wider supply chain through the Tawteen sector partnership program (please refer to Creating and growing value section of this report). Sharing best practices, insights and offering a wide array of support services has led to improved processes and the development of a growing local supply chain in Qatar, contributing to further social and economic growth. The passionate efforts of our people also extend to the wider community, creating opportunities for staff, contractors and the public to participate in volunteering initiatives such as beach clean-ups and turtle releases (please refer to Protecting habitats and biodiversity section of this report).

We also make conscious efforts to recognize and reward the motivations of our people. This recognition has been in the form of special nomination awards for exemplary initiatives, as well as structured recognition programs such as the annual HSE CEO Awards (please refer to HSE CEO Awards section of this report).

Our people are at the core of QatarEnergy's achievements. We focus on equipping talent with the correct tools and resources and providing an environment where our people are motivated to make a difference as well as inspire others. The sustainability challenge has many facets and our people regard it as deep-rooted into what we do. This approach enables our people to actively participate, using their knowledge and experience to make a positive contribution, creating value not only for QatarEnergy, its partners and supply chain, but also for the communities and societies where we operate.

# Creating and growing value

We recognize the vital role that partnerships play in driving outcomes to support our sustainability strategy. At QatarEnergy, we emphasize the importance of collaborating with business partners who share our core values and align with our commitments to health and safety, business ethics and environmental stewardship. Through meaningful synergies with like-minded partners, suppliers and customers, we aim to cultivate shared value that positively impacts the entire value chain of our operations and beyond.

## Economic contributions

Whilst achieving economic success and profitability is fundamental to any business, we aspire to leverage that success to create shared value for all our stakeholders and support sustainable economic growth and prosperity within the State of Qatar. A resilient and competitive energy sector is key. This approach aligns with our commitment to holistic sustainability – economic, environmental and social – ensuring that our economic development efforts contribute positively to the broader well-being of our communities, environment and partners.

With credit ratings of AA- from Fitch, AA from S&P and AA3- from Moody's, we maintained financial stability in 2023. We forecast a capital expenditure of approximately QR 351 billion (USD 96.4 billion) by 2027, reflecting our commitment to being a key global energy transition partner through the expansion of our LNG export capabilities, enhancement of low-carbon solutions and diversification of our international business activities.

This projection covers planned projects for which we have taken Final Investment Decision. We are also collaborating with leading companies within the energy industry globally to leverage expertise and extract incremental value through technology, engineering solutions and marketing initiatives.

We are not progressing on this journey alone. Through the Tawteen joint industry initiative, QatarEnergy and other key players in the energy sector provide comprehensive business support, capability building, talent development and strategic assistance to locally established suppliers and entities, ensuring cooperation, integration, effectiveness and capabilities within the increasingly wider local supply chain.

In 2023, active participation in Tawteen resulted in significant achievements, adding value to the local economy. In 2023, Tawteen enabled the creation of around 2,000 jobs. Since its inception, Tawteen has created around 7,000 jobs. Through Tawteen, QatarEnergy is supporting the strengthening of the local supply chain base. Tawteen is stimulating local growth in subsurface operations, maintenance, repairs, digital technologies, chemicals and metals, engineering services and other areas within the energy sector's supply chain.

A total of 72 opportunities have been awarded contributing to the economy and enhancing the efficiency of QatarEnergy's operations. Tawteen announced 15 investment opportunities, with a focus on environmental sustainability, for example promoting a waste-to-products strategy for waste treatment and disposal. Under Tawteen, international partnerships through memoranda of understanding and cluster investments, have opened new opportunities for the energy sector in Qatar. Some of these opportunities under Tawteen highlight the collective commitment of QatarEnergy and partners in reducing environmental impact, evidenced by projects focusing on hazardous waste treatment, spent caustic recovery, industrial salt production and minimizing aluminium waste.

The Tawteen program stands as a testament to our commitment to sustainable growth, community development and resilient local supply chains in the energy sector. By investing in local suppliers and embracing the In-Country Value (ICV) program, we aim to drive economic growth, create job opportunities for Qatar's citizens and ensure a resilient and sustainable supply chain. Through the Tawteen program, we focus on generating investment opportunities that not only create economic value for the sector but also contribute intentionally to sustainability. These opportunities, aligned with our ambition, facilitate progress in the energy transition essential for a sustainable future.

### Together we invest in sustainability

In 2023, QatarEnergy achieved notable success in sustainability-enhancing investments through its Cluster Investment Achievements initiative. One project focused on reducing the incineration of hazardous waste by implementing innovative vacuum dry desorption technology. This advanced process minimizes the consumption of power and water while effectively treating hazardous waste in an environmentally responsible manner.

Another significant project involved the treatment of spent caustic associated with deactivated catalyst in the normal alpha olefin process using caustic soda. The strategic approach includes establishing a facility to treat spent caustic, enabling the recovery and sale of sodium aluminate. This initiative contributes to the circular economy by reducing waste and environmental impact while promoting sustainable resource utilization.

## Working with our suppliers

At QatarEnergy, we place great emphasis on our responsibility and our role as an energy transition partner. We know that success relies on forging strong, respectful and mutually beneficial relationships with our supplier community. Our policies underpin our commitment to partnering with suppliers and contractors who align with our values. Our Supplier Principles of Conduct, published in 2023, guide our collaborative efforts to strengthen economic, environmental and social responsibility.

## Expectations of our supply chain

The supplier principles of conduct are as follows:

1. **Safety at work**
2. **Fairness and integrity**
3. **Respect and human rights**
4. **Protection of the environment**
5. **Action on climate change**
6. **Promotion of local economic and social development**

**Our commitment to join hands with our suppliers**

**Hassan Mohammed Al-Sulaiti**

Head, Vendors Performance and Compliance

The Supplier Principles of Conduct are a vital and important contribution. I am pleased that the principles are being positively embraced and recognized as both beneficial and a compliance necessity. Going forward it is the aim to sustain momentum, enhance engagement and achieve greater success in support of QatarEnergy's strategic vision and commitment to the Qatar National Vision 2030.

## Supplier Principles of Conduct

Since the 2019 launch of our Code of Conduct and the subsequent publication of our Foundational Policies in 2021, we have taken steps to further articulate and publicly share our standards for business conduct within QatarEnergy's large and diversified supply chain. In 2023, we achieved a significant milestone by finalizing the Supplier Principles of Conduct. This document lays out and reinforces our expectations of QatarEnergy suppliers and those who seek to provide goods, services or personnel to the organization and their network of sub-contractors.

We all share an individual, as well as collective responsibility to uphold these Supplier Principles of Conduct. This requires a commitment to communicate and promote compliance by personnel and sub-contractors alike, to manage risks proactively to provide evidence of third-party assessment when required and to report transparently.

Climate change is one of the most critical issues of our time. It is a shared challenge and addressing it will require the combined efforts of all stakeholders. QatarEnergy is committed to doing its part to tackle climate change and we expect our suppliers to join us in this commitment to take prompt and dedicated action.

An extract of what our expectations are from our suppliers and sub-contractors:

- Commit and take action to reduce contributions to climate change across all operations.
- Collaborate with QatarEnergy to deliver on our climate change commitments and targets.

In practice what this means for our suppliers and sub-contractors:

- Establish a baseline to determine your climate change contribution.
- Develop a roadmap and associated action plan to reduce GHG emissions and improve energy efficiency across all operations.
- Ensure actions on climate change are integrated into decision making, processes and behaviors.
- Monitor and evaluate performance and implement improvement measures.
- Report what is material to your organization in relation to climate change.

The Supplier Principles of Conduct was published in December 2023 and was shared with all QatarEnergy registered vendors (approximately 9,000). From January 2024, all existing and prospective vendors are required to review and acknowledge their commitment and adherence to the six principles through QatarEnergy's Mushtaryat Vendor Registration Portal – where the Supplier Principles of Conduct can be found. Our General Conditions of Contract and contractual templates have also been updated to include compliance with the Supplier Principles of Conduct and all staff were informed of the importance of this milestone.

We believe the Supplier Principles of Conduct help facilitate understanding of and alignment on ethical leadership, sustainable business practices and operational excellence across the supply chain, strengthening the energy industry as a result.

As part of Tawteen, supplier development efforts have seen remarkable growth, with the number of active local suppliers under development rising from 18 in 2022 to 37 in 2023. Tawteen, an integral part of our sustainability strategy, aims to establish a robust, in-country supplier base capable of meeting the energy sector's requirements, promoting ICV contributions and creating clusters of investment opportunities.

QatarEnergy firmly believes that economic growth and sustainability are intertwined. Our collaborative efforts with partners drive positive change, benefiting not only our operations but also the broader community. We are committed to fostering opportunities that are inclusive and sustainable, ensuring shared success.

**Pioneering solutions contributing to sustainability, creates value for us all**

**Sheikh Nasser Bin Hamad Al Thani**

Chairman, Al Mostadama Metals Factory

Al Mostadama Metals Factory is a unique company working with upstream and downstream industries in Qatar to pioneer solutions for various waste streams, diverting them from landfills to value-added products in alignment with the QNV 2030 vision.

We have researched and developed a solution for one of the waste streams, 'spent caustic' from QChem II, in collaboration with QChem. This opportunity was under the Tawteen initiative, which was thoroughly investigated at both lab and industrial scales as a proof of concept, ensuring the successful implementation of this project by Tawteen prior to being awarded. In June 2023, Tawteen and QChem awarded us with this project and we are delighted to highlight the support we continue to receive from Tawteen, bolstering our confidence in completing this project within the designated timeline. This initiative stands as an exemplary model for addressing enterprise risk management for QChem and developing local capabilities for processing 'spent caustic' in Qatar.

## Working with our customers

We believe that by engaging with our customers in meaningful ways, we will not only contribute to our own sustainability strategy and targets, but also collectively drive sustainable practices and contribute to a more responsible and resilient future. Through this collaborative effort, we strive to create a positive ripple effect that benefits the communities and environments we serve.

Achieving this requires us to integrate sustainability into our culture and the way we do business, including how we work with our customers. At QatarEnergy we:

- Engage with stakeholders, including employees, customers, partners and communities, to raise awareness about sustainability goals and gather feedback, hence, fostering transparency and accountability.
- Identify changes in customer preferences, as various government regulations come into effect, encouraging demand for cleaner, lower-carbon energy. This also brings about potential new customers and opportunities for QatarEnergy to strengthen its position as a lower-carbon energy provider, such as in the case of blue ammonia.
- Supporting international customers requesting details on our environmental footprint and emissions related data and certifications in order to comply with applicable requirements.

**Our long-term commitment to offering tailored solutions**

**Mohammed Atiq Al-Hamad**

Assistant Manager, Ammonia Marketing

We are proactive in our approach and work closely with our customers to understand their specific sustainability goals. This allows us to design customized solutions that meet their needs while minimizing not just their environmental impact but also ours. Building long-term relationships with our customers based on mutual trust and a shared vision of sustainable development is necessary to ensure that sustainable practices are integrated into key aspects of our collaboration.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# Sharing benefits with others

As a major player in the energy sector, QatarEnergy acknowledges the effect our actions have on communities and the broader society of Qatar. We intentionally channel our investments in social responsibility to enhance the well-being of communities around our operations, fostering the creation of sustainable communities and empowering resilient living. Our commitment ripples out further, as we seek to make meaningful and impactful contributions that resonate with the needs and priorities of the broader social fabric in the State of Qatar. Purposefully implementing social responsibility projects and programs on both fronts, we aim to create a lasting and positive presence and legacy for our local communities and broader society and therefore contribute to QNV 2030 ambitions of a just and caring society, capable of playing an active role in sustainable development.

## Social responsibility programs and initiatives

Sharing our success and benefits with others is an illustration of our commitment to invest in sustainability and societal well-being, reaching beyond our immediate business operations. In 2022, we identified five focus areas for our Corporate Social Responsibility programs which will continue to guide us over the next few years to deliver impactful, sustainable and measurable programs and initiatives.

In 2023, we invested over QR 19 million in various social responsibility projects, initiatives and sponsorships. These initiatives visibly illustrated our commitment to making a positive contribution across the five areas.

## Corporate Social Responsibility priority areas

- Education and awareness
- Capability building
- Community well-being
- Environment and sustainability
- Identity

**Building a bridge with society**

**Hend Ahmad Al-Sulaiti**
Community Partnership Officer, Public Relations & Communication

Embarking on QatarEnergy's Corporate Social Responsibility journey has been immensely rewarding. I've witnessed firsthand the transformative power of bridging corporate initiatives with community needs. Through strategic sustainability efforts, we've not only strengthened the bond between QatarEnergy and the local community but also contributed significantly to the nation's prosperity. It's a testament to the impactful synergy between corporate vision and social responsibility, creating a positive legacy for Qatar's sustainable future.

## Community outreach projects: Ras Laffan Industrial City Community Outreach Program (RLIC-COP)

We embrace our responsibility to contribute positively to the communities in which we operate. To ensure projects and initiatives have the desired shared value and long-term benefit they set out to achieve, we consulted with our communities and local stakeholders and designed and delivered the identified projects together with our business and industry partners.

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Ras Laffan Industrial City Community Outreach Program

Ras Laffan Industrial City Community Outreach Program (RLIC-COP) was established in 2010 as a collaborative effort between the six industry leaders operating in RLIC. This program aims to build a respectful and trustworthy partnership between the energy industry and the local community in Al Khor and the northern areas of the State of Qatar. By fostering a two-way engagement with community members and stakeholders, RLIC-COP encourages co-creation, innovation and collective decision-making that benefits everyone involved.

The program implements a variety of projects that promote respectful interactions between industry and the local community in Al Khor and surrounding areas. RLIC-COP also provides direct benefits through social development programs and partners with public institutions to support cultural, educational, health, environmental and safety initiatives that benefit the local community as a whole. Overall, the program strengthens trust and cooperation between the industrial companies and the community they serve.

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In 2023, our long-standing partnership with five industry partners operating in the Ras Laffan Industrial City area (QatarEnergy LNG, Pearl GTL, Dolphin Energy, ORYX GTL and Al Khaleej Gas), resulted in eight diverse projects ranging from education to the safety of the neighboring local community members, directly contributing to the wellbeing of the northern communities.

**Sanea Competition:** Managed by QatarEnergy LNG on behalf of the consortium and delivered through our local partner Ibtechar in strategic partnership with the Ministry of Education and Higher Education, the Sanea competition provides preparatory and secondary school students and teachers from the northern areas of Qatar an opportunity to unleash their creativity by developing prototypes aligned with their unique visions. The competition encourages and stimulates the young generation to acquire new technological skills.

**Al Daayen Municipality Support:** Collaborating with Al Daayen Municipality, the RLIC-COP enhanced the quality of audio, video and telecommunications materials in their master training room. Managed by ORYX GTL on behalf of the consortium, this initiative benefits not only municipality employees but also students, community-based organizations and RLIC-COP delivery partners utilizing the improved facility.

**Magic Carpet Program:** Managed by ORYX GTL on behalf of the consortium and delivered by our local partner Gamyra Tech, this program features a VR Magic Carpet system that travels between schools, delivering immersive educational experiences, covering various themes, to approximately 2,000 students annually, aged 7 to 17.

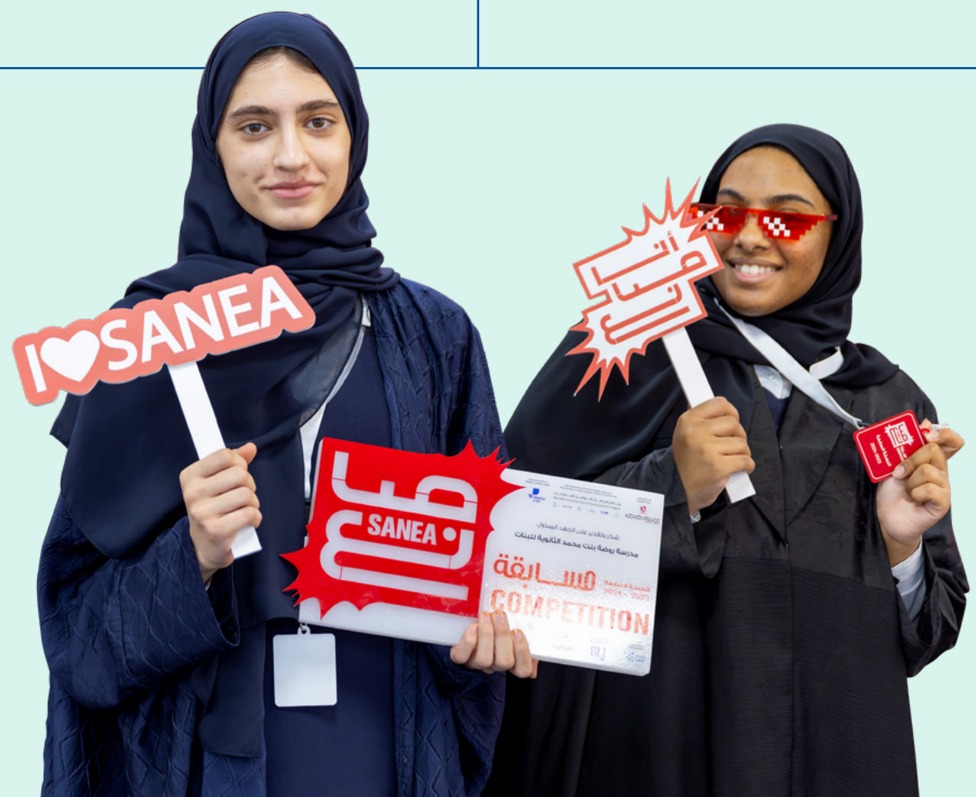
**Al Shamal 2023 Ramadan Football Tournament:** Hosted in collaboration with the Ministry of Sports and Youth (represented by Al Shamal Sports Club), this 15-day tournament, during the holy month of Ramadan, was attended daily by around 300 local spectators. Supported by RLIC-COP and managed by Al Khaleej Gas on behalf of the consortium, the event showcased 13 teams from various northern areas competing and promoting mutual respect and sportsmanship among participants.

**Maqad Al Duha Program:** Managed by Al Khaleej Gas on behalf of the consortium and delivered by our local partner Quodorat Center, this multi-year initiative supports elderly and retired women in Qatar's northern region. It provides essential support to female retirees and senior citizens while preserving traditional Qatari heritage and culture, facilitating the transfer of knowledge to younger generations.

**Al Gannas Society Support:** RLIC-COP extended its support to the Al Gannas Society for an additional three years until 2026. Managed by Pearl GTL on behalf of the consortium, this cultural association is dedicated to preserving and promoting Arabian traditional hunting through falconry.

**Bedar Program:** Managed by Pearl GTL on behalf of the consortium, in strategic partnership with the Ministry of Interior, the Bedar program is an industry-wide effort focused on elevating cultural and social consciousness among expatriate workers. The primary objective is to cultivate their personal safety skills, health and cultural awareness, nurturing a safer and more informed environment and easing their interaction with the local communities.

**Al Khor Sports Club Swimming Pool Shading:** Facilitated by RLIC-COP and managed by QatarEnergy on behalf of the consortium, the installation of swimming pool shading at Al Khor Sports Club enhances the comfort and enjoyment of individuals using the sports club's facilities during the scorching summer season.



# Partnering with communities in Ras Laffan

## Bedar: Communities and workers uniting

- Bedar, a transformative initiative led by RLIC-COP and the Ministry of Interior and managed by Pearl GTL on behalf of the consortium has left a memorable impression on the lives of expatriate workers in Qatar's northern communities. Bedar has successfully raised awareness in crucial areas such as security, safety, health, cultural awareness and societal integration.
- Benefitting from strategic partnerships with key entities, including the Ministry of Interior, the Ministry of Labour – Workers Support Fund, health care centers, government schools, youth social centers and Barwa Real Estate companies; Bedar has become a driving force for social, business and cultural development. Expatriate workers in large-scale residential housing complexes have been the primary recipients, with a significant focus on drivers, government school workers and their families.
- The social value of Bedar is evident in the newfound collective awareness of social harmony, promotion of healthy habits and the contribution to a safer society. This has not only enhanced the well-being of individual workers but has also strengthened the cohesion of local communities. In the business arena, Bedar's influence extends to companies, where it has intensified occupational security and safety indicators, created a safer work environment and bolstered public confidence in operational safety.
- Bedar's cultural value is substantial, fostering acceptance of cultural differences and contributing to the unity and cohesion of the targeted society. This initiative has helped shape a culturally rich community, creating a positive ripple effect in the region.
- With the delivery partners Namaa and Averroes Advisory, Bedar reached over 3,000 workers in the northern areas of Qatar in 2023. The outcomes are tangible – from strategi c partnerships and completed awareness content to the launch of the initiative's website and ongoing training deliveries. The workers in Qatar's northern regions have not only gained essential skills in safety, security and health but have also experienced a cultural integration that enhances their overall well-being.

**Collaborative efforts to enhance security and safety awareness**

**Captain Abdulhadi Ali Al-Marri**

Officer of the Preventive Education Department, General Directorate of Civil Defense

Security and safety are everyone's responsibility. Therefore, the General Directorate of Civil Defense cooperates with governmental and private agencies to enhance awareness of security and safety guidelines and deal with emergency cases, especially for workers, as they are considered the safety valve at the beginning of any emergency in their companies. These awareness initiatives support the efforts of the General Directorate of Defense and reduce loss of life and property.

# Partnering with communities in Ras Laffan

## Al Shamal Ramadan Football Tournament 2023: Everyone gets moving

The Al Shamal Ramadan Football Tournament, hosted by Al Shamal Sports Club in collaboration with the Ministry of Sports and Youth and RLIC-COP, and managed by Al Khaleej Gas on behalf of the consortium, resonated positively with the residents of Madinat Al Shamal and the northern communities in Qatar.

The tournament served as a unifying force, bringing together diverse communities within Madinat Al Shamal and the surrounding areas. This cultural integration was evident in the active engagement of 13 teams and approximately 170 players, fostering connections among participants and spectators alike.

Beyond the sports arena, the event contributed to a sense of community spirit. With a daily attendance ranging from 250 to 300 people, families and community members came together in a positive and enjoyable environment. This gathering not only strengthened community relationships but also aligned with the Human Development Pillar of QNV 2030.

One of the significant shared values was the promotion of a healthy lifestyle during the holy month of Ramadan. The tournament successfully encouraged participants to adopt positive habits and prioritize their physical well-being.

**Sports is vital for an engaged community**

**Ibrahim Al Sada**
Tournament Director of Al-Shamal Sports Club Founder's Ramadan Championship

We hold sports tournaments for youth and the role of such tournaments is important in the positive practice of the basic social aspects of competition and cooperation. This contributes to achieving fair competition and developing the spirit of teamwork among young people. Training with young people is also a good opportunity to occupy their free time.

The tournament is considered one of the most important tournaments organized in the northern region since the club was established in 1982, as it is a unique opportunity to bring together the people of the northern region annually. 13 teams, 170 players and administrators participated in the tournament.

The club management has developed a plan since 2020 to present a group of tournaments in cooperation with civil society institutions to encourage young people to engage in sports and provide distinguished management and organization to hold these competitions, as well as supervising young people in organizing and managing the tournaments. I am delighted about the organization of the tournament due to the support provided by the Ras Laffan Community Outreach Program and its social responsibility to encourage young people to practice sports, as well as implementing the club's vision for organizing the 2023 Ramadan tournament.




QatarEnergy

# Partnering with communities in Ras Laffan

## Magic Carpet Program: Imagining what the world could look like

Magic Carpet - Explore Qatar, an innovative educational initiative managed by ORYX GTL on behalf of the consortium, has left an enduring mark on students and educators in Doha and the northern communities. Developed by Gamyra Tech QSTP-LLC, a Qatar-based technical innovation company, this immersive program utilizes a virtual reality system to revolutionize traditional learning methods. Funded by RLIC-COP, the initiative reaches 2,000 students annually, aged 7-17, across various schools.

The primary beneficiaries of Magic Carpet are Grade 1-12 students from public, independent and international schools, along with teachers, educators and innovators in the education space. The program's key objectives include inspiring educators and students to embrace experiential learning, delivering impactful educational experiences through gamification and educating Qatari students about their history, heritage, environmental commitments and the pillars of a prosperous economy.

Beyond its educational value, Magic Carpet has demonstrated significant social and business value. The program serves as a catalyst for local capacity development and knowledge transfer, with 33% of its technical development team comprising young Qatari graduates. This initiative not only inspires students but also provides opportunities for them to contribute to design, communication, storytelling and project coordination aspects.

Magic Carpet – Explore Qatar, traveling from school to school, accommodates 20-30 students daily, depending on the participating school's schedule. Hosting the program for 2-6 weeks, schools contribute to the aim of delivering the Magic Carpet experience to a total of 2,000 students annually. The success of this initiative extends beyond the classroom, shaping the educational landscape and fostering local talent in Qatar.

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**Magic Carpet: Transformative educational outreach program**

**Selina Peay Collins**
Head of Early Years and Lower Primary, English Modern School Al Khor City

This year RLIC-COP provided a phenomenal educational outreach program entitled Magic Carpet - Explore Qatar to the English Modern School community. Enrolling our learners in this program has been a transformative journey that has significantly impacted their academic knowledge about the State of Qatar.

The curriculum material that was offered through virtual reality was meticulously designed, offering a perfect balance between theoretical knowledge and practical application. The staff were not only experts in their fields but were also dedicated and approachable for our student population from age 7 to 17. The hands-on exploration and real-world application allowed students to learn in a meaningful way.

I would highly recommend the Magic Carpet program to anyone seeking a comprehensive and enriching educational experience. I would also like to thank the entire team for their dedication to excellence in education.

## Mesaieed Community Outreach Program

As the main operator in the area, QatarEnergy established a Community Outreach Program made up of elected representatives from the industry players operating and living in the residential and industrial community in Mesaieed. Over the years the program acted as an effective platform for interactive and constructive engagement. It provided the space and time for the residential and industrial community representatives to discuss jointly their needs and concerns, collectively exploring potential social responsibility opportunities (e.g., additional bus services, a new sports playing field, need for a community hall, more playgrounds).
The program also acted as a valuable communication channel to share the initiatives planned, providing the community the opportunity to participate (e.g., Breast Cancer Awareness Day).

Although formalized forum activities were suspended in 2020 due to COVID-19, we continued with projects in and around the community of Mesaieed. As QatarEnergy, in close collaboration with other industry players operating in MIC progresses with detailing the programs proposed and aligning them with the new Social Responsibility Strategy, the aim is to reinstate the Mesaieed Community Outreach Program in full alignment with QatarEnergy's Corporate Social Responsibility's five priority areas, maximizing the shared value for our Mesaieed community and all involved parties.

## Partnering with communities in MIC

In the ever-evolving landscape of sustainability, we recognize the pivotal role that communities play in shaping a more resilient and responsible future. In Mesaieed, our commitment extends beyond traditional corporate boundaries, as we strive to foster meaningful partnerships with local residential and industrial communities. Specifically, we acknowledge the potential of young generation as catalysts for positive change. By encouraging them not merely to pay attention but to commit, participate and share their newfound knowledge, we aim to create a ripple effect that inspires others to join the collective effort towards a sustainable tomorrow. We believe in the transformative power of community collaboration and the potential for shared commitment to drive enduring change.

### Exploring solar, beating plastic pollution

Mesaieed International School's secondary campus became the hosting ground for the "World Environment Day Event 2023," a collaborative initiative that brought together QatarEnergy staff and Mesaieed International School students. The turnout was around 200 participants and the day's activities revolved around environmental awareness, with a particular focus on the transformative potential of solar energy and renewable solutions in general. The agenda blended presentations with engaging discussions. The event showcased an overview of ongoing solar projects and their improvements, emphasizing the practical strides taken towards a sustainable future.

### Step-up to clean-up

QatarEnergy and Mesaieed International School, along with our strategic partner MECC, joined forces for a special event at Mesaieed Beach-Sealine. The desired aim was simple: to help 150 participants, including QatarEnergy staff and school students, understand why it's important to take care of the marine environment and biodiversity and be responsible for our surroundings. The event, called the "Mesaieed Beach Clean-up Campaign" with the slogan "Step-up to clean-up," focused on raising awareness, especially among students, about keeping the beach clean. Discussions included the crucial need to care for our oceans for our present and future. This was followed by all participants contributing to cleanup Mesaieed Beach.

The beach cleanup supported awareness building and working together to protect our environment.

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# Our look ahead

In 2024, QatarEnergy is planning:

**Advancing our Social Responsibility Strategy 2023-2027:** Four social responsibility programs and projects are currently being finalized with a plan to be kicked-off as part of the pilot phase of the Social Responsibility Strategy 2023-2027.

**Exploring new sponsorship opportunities:** Working with potential partners to consider and explore new sponsorship opportunities aligned with the QatarEnergy vision and objectives maximizing the value for the local communities and the boarder society of Qatar.

**Strengthening our in-house CSR capabilities:** Reinforcing QatarEnergy social responsibility team with new talents and considering targeted development opportunities over the next few years building internal capabilities and expertise.

**Consolidating Ras Laffan Industrial City Community Outreach Program (RLIC-COP):** Working with our energy partners operating in RLIC to renew its mandate until 2030, enhancing the RLIC-COP ways of working and considering new partnerships and projects in close collaboration with our local stakeholders building on our positive legacy during the last 14 years.

# Appendices



# Appendix A: Glossary and acronyms

## Glossary

| Term | Definition |
|---|---|
| Aiming for Zero Methane Emissions Initiative | An industry-led effort that seeks to achieve near zero methane emissions from oil and gas operations by 2030. |
| Guideline | A documented recommended practice that supports the delivery of a policy, standard, procedure or work instruction but has discretion or leeway in its implementation or use. |
| Procedure | A document that details the step-by-step execution of an activity that must be followed at all times. |
| QatarEnergy Group | QatarEnergy and its consolidated subsidiaries and where the context requires, its joint operations, joint ventures and associates. |
| Scope 1 (Emissions) | Scope 1 emissions refer to greenhouse gas (GHG) emissions directly generated by activities or operations that are owned or controlled by the reporting organization. |
| Scope 2 (Emissions) | Scope 2 emissions refer to indirect greenhouse gas (GHG) emissions that are associated with the consumption of purchased or acquired electricity, heat or steam by an organization. These emissions are categorized as indirect because they occur as a result of activities outside of an organization's direct control but are still related to its operations. |
| Standard | A documented statement of minimum requirements or required activities that must be followed at all times. |

## Acronyms

| Abbreviation | Definition |
|---|---|
| AAQMS | Ambient air quality monitoring stations |
| AGP | Advanced Gas Path |
| AGRP | Acid Gas Removal Plant |
| AGRU | Acid Gas Removal Unit |
| ALARP | As low as reasonably practicable |
| API | American Petroleum Institute |
| AQMIS | Ambient Quality Management Information System |
| ATDU | Anaerobic Thermal Desorption Unit |
| BBL | Barrel |
| BCC | Business Conduct Committee |
| BCM | Business Continuity Management |
| BCMS | Business continuity management system |
| BTU | British thermal unit |
| CCS | Carbon capture and storage |
| CCUS | Carbon capture, utilization and storage |
| CEMP | Construction Environmental Management Program |
| CEMS | Continuous Emission Monitoring Systems |
| CEO | Chief Executive Officer |
| $CH_4$ | Methane |
| CI | Continuous Improvement |
| $CO_2$ | Carbon dioxide |
| $CO_2e$ | Carbon dioxide equivalent |
| COSO | Committee of Sponsoring Organizations |
| CSI | Commercially sensitive information |
| CSR | Corporate Social Responsibility |
| CTO | Consent to operate |
| CVMAS | Centralized Vessel Monitoring and Alerting System |
| DCA | Dukhan Concession Area |
| DEL | Dolphin Energy Limited |
| DEMP | Decommissioning Environmental Management Plan |
| DP2 | Dynamic Positioning 2 |
| EE | Energy efficiency |
| ELT | Executive Leadership Team |
| EMS | Environmental Management System |
| ENVID | Environmental impact identification |
| EPC | Engineering, Procurement and Construction |
| ePSSR | electronic Pre-Startup Safety Review |
| ERM | Enterprise risk management |
| ERMS | Enterprise risk management system |
| ERR | Environmental Risk Register |
| ERU | Ethane Recovery Unit |
| eSOC | electronic Safety Observation Card |
| EU ETS MRR | European Union Emission Trading System Monitoring and Reporting Regulation |
| EVP | Executive Vice President |
| FCC | Fluid catalytic cracking |
| FDI | Foreign Direct Investment |
| FEED | Front-End Engineering and Design |
| FM | Facilities Management |
| FRP | Flare reduction project |
| FSP | Fahahil Stripping Plant |
| GCMS | Gas chromatography mass spectrometry |
| GDP | Gross Domestic Product |
| GFMR | Global Flaring and Methane Reduction Partnership |
| GGEP | QatarEnergy's Group Governance Expectations Program |
| GHG | Greenhouse gas |
| GJ | Gigajoule |
| GRI | Global Reporting Initiative |
| GRSP | Global Road Safety Partnership |
| GTL | Gas-to-liquid |
| GW | Gigawatt |
| H.E. | His Excellency |

| | |
|---|---|
| HAZID | Hazard Identification |
| HAZOP | Hazard and Operability Study |
| HDPE | High density polyethylene |
| $H_2S$ | Hydrogen Sulfide |
| HSE | Health, Safety, Environment |
| HSEQ | Health, Safety, Environment and Quality |
| HVAC | Heating, Ventilation and Air Conditioning |
| IC | Industrial City |
| ICV | In-Country Value |
| IDEA | Identify; Define; Execute; Assure |
| IOGP | International Association of Oil & Gas Producers |
| IPCC | Intergovernmental Panel on Climate Change |
| ISAE | International Standard on Assurance Engagements |
| ISO | International Organization for Standardization |
| IT | Information Technology |
| IVMS | In-Vehicle Monitoring System |
| JBOG | Jetty boil-off gas |
| JMPLOC | Joint Marine and Port Logistics Center |
| JV | Joint venture |
| KBBL/day | Kilobarrels per day |
| Kg/h | Kilogram per hour |
| KPIs | Key performance indicators |
| Kt | Kiloton |
| LDAR | Leak detection and repair |
| LED | Light emitting diode |
| LLC | Limited Liability Company |
| LNG | Liquefied natural gas |
| LOPC | Loss of Primary Containment |
| LPG | Liquefied petroleum gas |
| LSR | Life saving rules |
| LTIF | Lost-time injury rate |
| MAHM | Major accident hazards management |
| MDGC | Multi-dimensional gas chromatography |
| MECC | Ministry of Environment and Climate Change |
| MGP | Methane Guiding Principles |
| MIC | Mesaieed Industrial City |
| MLN | Million |
| MMscf | Million standard cubic feet |
| MMSCFD | Million standard cubic feet per day |
| MMTPA | Million metric tons per annum |
| MRV | Monitoring, reporting and verification |
| $MSm^3/d$ | Mega standard cubic meter per day |
| MTO | Managing Threats and Opportunities process |
| MW | Megawatt |
| MWh | Megawatt hour |
| MWp | Megawatt-peak |
| NCCAP | National Climate Change Action Plan |
| NDS 3 | Third National Development Strategy |
| NFE | North Field East |
| NFS | North Field South |
| NGL | Natural gas liquids |
| NHT | Naphtha Hydrotreating Unit |
| NORM | Naturally occurring radioactive materials |
| NOx | Nitrogen oxides |
| OAPEC | Organization of Arab Petroleum Exporting Countries |
| OE | Operational excellence |
| OEM | Original equipment manufacturer |
| OGCI | Oil and Gas Climate Initiative |
| OGMP | Oil & Gas Methane Partnership |
| OHRA | Occupational Health Risk Assessment |
| PM | Particulate matter |
| PS-2 | Production station 2 |
| PSC | Production Sharing Contract |
| PSE | Process safety events |

| | |
|---|---|
| PSFs | Process safety fundamentals |
| PSM | Process Safety Management |
| PV | Photovoltaic |
| QAFAC | Qatar Fuel Additives Company |
| QAFCO | Qatar Fertiliser Company |
| QAPCO | Qatar Petrochemical Company |
| Q-Chem | Qatar Chemical Company |
| QEWC | Qatar Electricity and Power Company |
| QMC | Qatar Melamine Company |
| QNV | Qatar National Vision |
| QPD | Qatar Petroleum Development Co Ltd. (Japan) |
| QR | Qatari Riyal |
| QRG | Qatar Reference Gas |
| QRSWG | Qatar Road Safety Working Group |
| QSTP | Qatar Science & Technology Park |
| QVC | Qatar Vinyl Company |
| REC | Renewable Energy Certificate |
| RGPC | Ras Girtas Power Company |
| RISC | Reliability and Integrity Steering Committee |
| RLIC | Ras Laffan Industrial City |
| RLIC-COP | Ras Laffan Industrial City Community Outreach Program |
| RLOC | Ras Laffan Olefins Company |
| RLPC | Ras Laffan Power Company |
| RTOC | Real-Time Operations Center |
| SCR | Selective catalytic reduction |
| SCF | Standard cubic feet |
| SGE | Statement of GHG emissions |
| SMART | Specific, measurable, achievable, relevant and time-bound |
| SMEs | Subject matter experts |
| $SO_2$ | Sulfur dioxide |
| SPA | Sale and Purchase Agreement |
| SRU | Sulfur Recovery Unit |
| TRIR | Total Recordable Injury Rate |
| TSE | Treated sewage effluent |
| UER | Umm El Radhuma |
| UHP | Umm Al-Houl Power |
| UN | United Nations |
| UN SDGs | United Nations Sustainable Development Goals |
| UNEP | United Nations Environment Programme |
| US EPA | US Environmental Protection Agency |
| USD | United States Dollar |
| VOC | Volatile organic compounds |
| VR | Virtual Reality |
| WPC | World Petroleum Congress |
| wt% | Weight percentage |

# Appendix B: Disclaimers and clarifications

This report may include projections, estimates, plans, initiatives, expectations, goals and other forward-looking statements. These forward- looking statements reflect management's current expectations and assumptions. They are aspirational and not guarantees or promises that goals or targets will be met. Forward-looking statements are inherently subject to certain risks and uncertainties, which could cause actual results to differ materially from these forward-looking statements. Although we believe that the expectations reflected in these forward-looking statements are reasonable, no assurance can be given that any projection, plan, expectation or goal set forth in this report can or will be achieved. QatarEnergy undertakes no obligation to correct, revise, or update any forward-looking statements, estimates or goals included in this report.

The information QatarEnergy's global asset network in the Corporate overview, is for reference only. While every effort has been made to ensure that the information is correct, QatarEnergy does not warrant that it is complete or accurate. For more information, consult: **www.qatarenergy.qa.** The map does not necessarily reflect international borders or other locations accurately.

# Appendix C: GRI Standards content index

| GRI standard | Disclosure | Reference |
|---|---|---|
| GRI 2: General disclosures 2021 | 2-1 Organizational details | "Corporate overview" |
| | 2-2 Entities included in the organization's sustainability reporting | "About the report" |
| | 2-3 Reporting period, frequency and contact point | "About the report" |
| | 2-4 Restatements of information | There were no restatements of information during the reporting period. |
| | 2-5 External assurance | "About the report" |
| | 2-6 Activities, value chain and other business relationships | "Our portfolio" |
| | 2-7 Employees | Appendix E: Performance Data |
| | 2-8 Workers who are not employees | Not disclosed |
| | 2-9 Governance structure and composition | "Governance in action" |
| | 2-10 Nomination and selection of the highest governance body | "Governance in action" |
| | 2-11 Chair of the highest governance body | "Governance in action" |
| | 2-12 Role of the highest governance body in overseeing the management of impacts | "Governance in action" |
| | 2-13 Delegation of responsibility for managing impacts | "Governance in action" |
| | 2-14 Role of the highest governance body in sustainability reporting | "About the report" |
| | 2-15 Conflicts of interest | Not disclosed |
| | 2-16 Communication of critical concerns | "Governance in action" |
| | 2-17 Collective knowledge of the highest governance body | "Governance in action" |

| GRI standard | Disclosure | Reference |
|---|---|---|
| GRI 2: General disclosures 2021 | 2-18 Evaluation of the performance of the highest governance body | Not disclosed |
| | 2-19 Remuneration policies | Not disclosed |
| | 2-20 Process to determine remuneration | Not disclosed |
| | 2-21 Annual total compensation ratio | Not disclosed |
| | 2-22 Statement on sustainable development strategy | “Our sustainability strategy” |
| | 2-23 Policy commitments | “Our Standards and policies” |
| | 2-24 Embedding policy commitments | “Living our values” |
| | 2-25 Processes to remediate negative impacts | “Focusing on what matters” |
| | 2-26 Mechanisms for seeking advice and raising concerns | “Living our values” |
| | 2-27 Compliance with laws and regulations | “Governance in action” |
| | 2-28 Membership associations | Appendix H: Our membership in industry trade associations and voluntary sustainability-related initiatives |
| | 2-29 Approach to stakeholder engagement | “Focusing on what matters” |
| | 2-30 Collective bargaining agreements | Not applicable |
| GRI 3: Material topics 2021 | 3-1 Process to determine material topics | “Focusing on what matters” |
| | 3-2 List of material topics | “Focusing on what matters” |
| | 3-3 Management of material topics | “Focusing on what matters” |
| GRI 201: Economic performance 2016 | 201-1 Direct economic value generated and distributed | Appendix E: Performance data |
| | 201-2 Financial implications and other risks and opportunities due to climate change | Not disclosed |
| | 201-3 Defined benefit plan obligations and other retirement plans | Fully in compliance with the respective legislation of the State of Qatar |
| | 201-4 Financial assistance received from the government | Not disclosed |
| GRI 202: Market Presence 2016 | 202-1 Ratios of standard entry level wage by gender compared to local minimum wage | Not disclosed |
| | 202-2 Proportion of senior management hired from the local community | Not disclosed |
| GRI 205: Anti-Corruption 2016 | 205-1 Operations assessed for risks related to corruption | Not disclosed |
| | 205-2 Communication and training about anti-corruption policies and procedures | Appendix E: Performance Data |
| | 205-3 Confirmed incidents of corruption and actions taken | Not disclosed |
| GRI 302: Energy 2016 | 302-1 Energy consumption within the organization | Appendix E: Performance data |
| | 302-2 Energy consumption outside of the organization | Appendix E: Performance data |
| | 302-3 Energy intensity | Appendix E: Performance data |
| | 302-4 Reduction of energy consumption | Appendix E: Performance data |
| | 302-5 Reductions in energy requirements of products and services | Not disclosed |

| GRI standard | Disclosure | Reference |
|---|---|---|
| GRI 303: Water and Effluents 2018 | 303-1 Interactions with water as a shared resource | "Protecting local natural resources – air, water and land" |
| | 303-2 Management of water discharge-related impacts | "Protecting local natural resources – air, water and land" |
| | 303-3 Water withdrawal | Appendix E: Performance data |
| | 303-4 Water discharge | Appendix E: Performance data |
| | 303-5 Water consumption | Appendix E: Performance data |
| GRI 304: Biodiversity 2016 | 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas | Not applicable |
| | 304-2 Significant impacts of activities, products and services on biodiversity | "Protecting habitats and biodiversity" |
| | 304-3 Habitats protected or restored | "Protecting habitats and biodiversity" |
| | 304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations | Not applicable |
| GRI 305: Emissions 2016 | 305-1 Direct (Scope 1) GHG emissions | Appendix E: Performance data |
| | 305-2 Energy indirect (Scope 2) GHG emissions | Appendix E: Performance data |
| | 305-3 Other indirect (Scope 3) GHG emissions | Not disclosed |
| | 305-4 GHG emissions intensity | Appendix E: Performance data |
| | 305-5 Reduction of GHG emissions | Appendix E: Performance data |
| | 305-6 Emissions of ozone-depleting substances (ODS) | Not disclosed |
| | 305-7 Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions | Appendix E: Performance data |
| GRI 306: Effluents and Waste 2020 | 306-1 Waste generation and significant waste-related impacts | "Circularity and waste management" |
| | 306-2 Management of significant waste-related impacts | "Circularity and waste management" |
| | 306-3 Waste generated | Appendix E : Performance data |
| | 306-4 Waste diverted from disposal | Appendix E : Performance data |
| | 306-5 Waste directed to disposal | Appendix E : Performance data |
| GRI 402: Labor Management Relations 2016 | 402-1 Minimum notice periods regarding operational changes | Not disclosed |
| GRI 403: Occupational Health and Safety 2018 | 403-1 Occupational health and safety management system | "Operational responsibility" |
| | 403-2 Hazard identification, risk assessment and incident investigation | "Protecting our people" |
| | 403-3 Occupational health services | "Protecting our people" |
| | 403-4 Worker participation, consultation and communication on occupational health and safety | "Protecting our people" |
| | 403-5 Worker training on occupational health and safety | Not disclosed |
| | 403-6 Promotion of worker health | "Protecting our people" |
| | 403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | "Protecting our people" |
| | 403-8 Workers covered by an occupational health and safety management system | Not disclosed |
| | 403-9 Work-related injuries | Appendix E : Performance data |
| | 403-10 Work-related ill health | Not disclosed |

| GRI standard | Disclosure | Reference |
|---|---|---|
| GRI 404: Training and Education 2016 | 404-1 Average hours of training per year per employee | Appendix E : Performance data |
| | 404-2 Programs for upgrading employee skills and transition assistance program | Not disclosed |
| | 404-3 Percentage of employees receiving regular performance and career development reviews | Not disclosed |
| GRI 405: Diversity and Equal Opportunities 2016 | 405-1 Diversity of governance bodies and employees | Not disclosed |
| | 405-2 Ratio of basic salary and remuneration of women to men | Not disclosed |
| GRI 410: Security Practices 2016 | 410-1 Security personnel trained in human rights policies or procedures | Not disclosed |
| GRI 413: Local Communities 2016 | 413-1 Operations with local community engagement, impact assessments and development programs | "Sharing benefits with others" |
| | 413-2 Operations with significant actual and potential negative impacts on local communities | Not disclosed |
| GRI 416: Customer Health and Safety 2016 | 416-1 Assessment of the health and safety impacts of product and service categories | Not applicable |
| | 416-2 Incidents of non-compliance concerning the health and safety impacts of products and services | Not applicable |
| GRI 418: Customer Privacy 2016 | 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data | Not disclosed |

# Appendix D: Alignment with QNV 2030 Targets

## Environmental Development

Management of the environment such that there is harmony between economic growth, social development and environmental protection.

| | | |
|---|---|---|
| **A Balance between Development Needs and Protecting the Environment** | **Sustainable environment** | • Measuring and managing our environmental footprint, from energy consumption to responsible use of water, materials and natural habitats.<br>• Investing in energy savings and energy efficiency programs.<br>• Establishing renewable energy resources such as solar power plants. |
| | **Reducing emissions** | • Continuously looking for opportunities to reduce our Scope 1 and 2 GHG emissions, including through investments in cleaner forms of energy and carbon capture technologies.<br>• Partnering with other companies to improve the GHG accounting, reporting and verification.<br>• Progressing with the continuous implementation of our approach to mitigating the impacts of climate change. |
| | **Air quality** | • Operating ambient air quality monitoring stations across Qatar, primarily in the industrial cities.<br>• Investments to lower emissions of oxides of nitrogen (NOx), oxides of sulfur (SOx) and volatile organic compounds (VOC) released during oil and gas production and processing. |
| | **Cleaner water** | • Ensuring water stewardship through efficient and responsible use of water, including operating water treatment facilities at each of our sites.<br>• Developing a new water conservation project to better understand and manage water use across operations.<br>• Completing a detailed groundwater assessment in the Dukhan Concession Area leading to the development of a strategic plan for mitigating and remediating operational impacts on local groundwater. |
| | **Waste management** | • Operating a comprehensive hazardous waste management center in MIC and industrial non-hazardous waste management facility, in addition to a domestic waste transfer station.<br>• Managing effluents and waste, including through recycling programs and periodic inspections of our hazardous waste facilities. |
| | **Conservation of biodiversity** | • Carrying out ecological surveys every three years to monitor and assess any significant environmental impacts from operations.<br>• Monitoring and conserving Qatar's hawksbill turtles in seven sites across the country.<br>• Cleaning plastic waste and debris from the seafront at MIC Port as part of our efforts to protect the marine ecosystem. |

| | | |
|---|---|---|
| | **An increasingly environmentally aware population** | • Creating environmental awareness through promoting different environmental topics such as energy efficiency, waste recycling and preservation of biodiversity.<br>• Creating environmental awareness through sponsored community projects such as annual beach clean-up campaigns. |
| | **Promoting sustainable environmental practices** | • Organizing hands-on campaigns such as tree planting, marine debris removal and mangroves planting that engage both employees and local communities in environmental stewardship. |
| | **Improved governance and outcomes** | • Deploying a core team to review, assess and monitor QatarEnergy's key sustainability matters.<br>• Fostering strong ethics, compliance and transparency practices through a range of organizational policies (including the development of separate, stand-alone Environmental and Sustainability documents) that align with the principles outlined in our Code of Conduct and our related Ethics and Compliance Framework.<br>• Developing the Supplier Principles of Conduct to encourage sustainable business practices across our value chain. |

## Human Development

Development of all its people to enable them to sustain a prosperous society.

| | | |
|---|---|---|
| **An Educated Population** | **Education and training** | • Offering non-technical education programs to help employees improve their performance and develop skills through engaging local and international trainers. |
| | **Improving knowledge transfer mechanisms** | • Supporting youth and new professionals through diverse talent attraction programs followed by knowledge sharing initiatives such as internships. |
| **Population: Physically and Mentally** | **Nurturing a healthy population** | • Maintaining a Health, Safety, Sustainability and Environmental Policy and providing ongoing safety training, workshops and communication.<br>• Establishing a Crisis Management Governance to respond to the pandemic through prevention, detection and management.<br>• Supporting sector compliance with health requirements.<br>• Providing health education for employees, which they can then share with their families. |
| | **Managing occupational health and safety information to monitor and assess the health status of all employees** | • Offering various employee wellness initiatives, such as our bi-annual healthy lifestyle forums, to promote mental, physical and emotional well-being.<br>• Providing occupational hygiene programs and procedures to help prevent occupational illnesses.<br>• Implementing programs like Asset Integrity Management and Process Safety Management, which reflect our commitment to protecting human life and the natural environment by a safe and reliable operation of assets.<br>• Having procedures in place such as protocols to prevent and contain major incidents, including fires, explosions, exposure to toxic substances. |
| **Capable and Motivated Workforce** | **Increased and diversified participation of Qataris in the workforce** | • Implementing the Strategic Qatarization Plan, an industry-wide initiative to develop Qataris to a standard comparable to counterparts globally.<br>• Supporting the recruitment, educational sponsorship and development of Qatari national.<br>• Cultivating business opportunities with local suppliers and contractors in Qatar.<br>• Leading the annual Qatarization Review Meeting for the Energy and Industry Sector, to recognize companies for their accomplishments around Qatarization.<br>• Building leadership capability through leadership programs for top, mid-level and frontline leaders with a focus on development of nationals.<br>• Conducting events/programs such as Tas'ees, which aims to engage and develop Qatari nationals. |

## Social Development

Development of a just and caring society based on high moral standards, and capable of playing a significant role in the global partnership for development.

| | | |
|---|---|---|
| **Social Protection** | **Social protection** | • Practicing Corporate Social Responsibility and annual sustainability reporting of our social, economic and environmental impacts.<br>• Protecting our workers through a Workers' Welfare Standard to ensure everyone is treated with respect and dignity.<br>• Designing procedures to ensure our employees and their families get access to healthcare and wellness programs. |
| **A Sound Social Structure** | **Enhancing public safety and security** | • Providing employees and contractors with ongoing Health, Safety and Environment training.<br>• Adopting the 7 Star HSE Audit System to improve occupational health and safety in the workplace.<br>• Maintaining reporting of Process Safety Incidents to ensure that the recurrence of such incidents can be decreased. |

## Economic Development

Development of a competitive and diversified economy capable of meeting the needs of, and securing a high standard of living for all its people for the present and for the future.

| | | |
|---|---|---|
| **Economic Management** | **Development of economic infrastructure** | • Investing in national energy and industry companies.<br>• Supporting innovation in research and development.<br>• Improving operational efficiency and reliability.<br>• Cultivating business opportunities with local suppliers and contractors in Qatar. |
| **Responsible Exploitation of Oil and Gas** | **Efficient use of natural resources, which includes energy, oil and gas** | • Improving resource efficiency for the sustainable development of the State of Qatar.<br>• Ensuring the successful implementation of our approach to mitigating the impacts of climate change to ensure efficient growth. |
| | **Reducing oil and gas costs to maximize efficiency** | • Continuing the integration of the Operational Excellence Program to exploit synergies between upstream and downstream operations. |
| **Suitable Economic Diversification** | **Building a diversified economy** | • Attracting foreign investment into Qatar and expanding Qatar's investments across the world.<br>• Cultivating business opportunities with local suppliers and contractors in Qatar.<br>• Focusing on innovation to identify new market/product potential for alternate, cleaner fuels. |

# Appendix E: Performance data

## Responsible business conduct and governance

## Climate Change and Environmental Action

## Operational Responsibility

## Social and economic performance

| | | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| **Responsible business conduct and governance** | | | | | | |
| **QatarEnergy Governance Bodies and Structures [A]** | | | | | | **GRI 2-24: Embedding policy commitments** |
| Board of Directors - members | number | 7 | 7 | 7 | 7 | 7 |
| Board Committee (Audit committee) - members | number | 3 | 3 | 3 | 3 | 3 |
| Board Committee (Audit committee) - meetings | number | 4 | 4 | 4 | 4 | 4 |
| Extended Leadership Team (ELT) - members, including CEO | number | 14 | 14 | 14 | 14 | 14 |
| **Governance Capability** | | | | | | **GRI 2-24: Embedding policy commitments** |
| **Awareness: Engagements & communication** | | | | | | |
| Connect Newsletters | number | - | - | - | 3 | 1 |
| Webinars | number | - | - | - | 3 | 1 |
| **Ethics and compliance** | | | | | | **GRI 2-23: Policy commitments** |
| **Training & Awareness - Foundational: Staff** | | | | | | |
| E-Code of Conduct completions by employees | % | - | 100 | 100 | 100 | 100 |
| % of employees agree or strongly agree with: Q1 -To what extent do you agree with the statement "QatarEnergy is committed to doing business in accordance with its values and standards of conduct?" | % | - | 92 | 90 | 93 | 92 |
| In-person: Leadership Conversation Cafés – conducted | number | | - | - | 2 | 2 |
| In-person: Conversation Cafés - attendees | number | - | - | - | 700 | 500 |
| Network: Integrity Ambassadors - individuals in network [B] | number | - | 55 | 74 | 70 | 70 |
| Network: Integrity Ambassadors - directorates represented | number | - | 13 | 13 | 13 | 13 |
| Network: Integrity Ambassadors - sessions held | number | - | - | - | 10 | 10 |
| Electronic: Ethics Moments issued to staff | number | - | 12 | 12 | 6 | 9 |
| Electronic: Point Bulletins issued to staff | number | - | - | - | 6 | 9 |
| Electronic: Policy Embedding videos released to staff | number | - | - | - | 6 | 5 |

**Notes:**

--: parameter was not tracked

[A] Governance body - formalized group of individuals responsible for the strategic guidance of the organization, the effective monitoring of management and the accountability of management to the broader organization and its stakeholders (GRI).

[B] As of 31 December 2023, QatarEnergy transitioned away from the use of its network of Integrity Ambassadors to a wider and direct engagement with all its employees, contractors and suppliers. In doing this, we are clearly signaling the extension of our ethical culture from a select few to everyone working at or with QatarEnergy.

| | | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| **Climate Change and Environmental Action** | | | | | | |
| **Scope 1 and 2 GHG emissions - equity boundary [A] [B] [C] [D]** | | | | | | **GRI 305: Emissions 2016** |
| **Scope 1 - Direct GHG emissions** | **10^6 metric ton $CO_2e$** | **37.5** | **38.2** | **38.9** | **43.3** | **43.9** |
| **Breakdown by segment** | | | | | | |
| Upstream [E] | 10^6 metric ton $CO_2e$ | 27.5 | 27.6 | 27.8 | 32.2 | 32.6 |
| *LNG Facilities* | 10^6 metric ton $CO_2e$ | 21.3 | 21.3 | 21.2 | 22.9 | 23.2 |
| Refining and GTL | 10^6 metric ton $CO_2e$ | 2.1 | 1.7 | 2.2 | 2.0 | 2.2 |
| Petrochemicals [F] | 10^6 metric ton $CO_2e$ | 4.0 | 5.2 | 5.2 | 5.1 | 5.0 |
| Others [G] | 10^6 metric ton $CO_2e$ | 4.0 | 3.7 | 3.7 | 4.0 | 4.0 |
| **Breakdown by georgraphy** | | | | | | |
| Qatar | 10^6 metric ton $CO_2e$ | 36.4 | 37.1 | 38.0 | 42.3 | 43.1 |
| Rest of world | 10^6 metric ton $CO_2e$ | 1.1 | 1.1 | 1.0 | 1.0 | 0.8 |
| **Scope 2 - Energy Indirect emissions [H]** | **10^6 metric ton $CO_2e$** | **2.9** | **1.8** | **1.8** | **2.2** | **2.2** |
| **Breakdown by segment** | | | | | | |
| Upstream [E] | 10^6 metric ton $CO_2e$ | 1.0 | 0.8 | 0.8 | 1.2 | 1.2 |
| *LNG Facilities* | 10^6 metric ton $CO_2e$ | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 |
| Refining and GTL | 10^6 metric ton $CO_2e$ | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Petrochemicals [F] | 10^6 metric ton $CO_2e$ | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 |
| Others [G] | 10^6 metric ton $CO_2e$ | 1.0 | 0.3 | 0.2 | 0.3 | 0.3 |
| **Breakdown by georgraphy** | | | | | | |
| Qatar | 10^6 metric ton $CO_2e$ | 2.8 | 1.7 | 1.7 | 2.1 | 2.1 |
| Rest of world | 10^6 metric ton $CO_2e$ | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Scope 1 and 2 GHG emissions - operated boundary [A] [I]** | | | | | | **GRI 305: Emissions 2016** |
| Scope 1 - Direct GHG emissions | 10^6 metric ton $CO_2e$ | 5.0 | 5.2 | 5.8 | 5.4 | 5.9 |
| Scope 2 - Energy Indirect GHG emissions [H] | 10^6 metric ton $CO_2e$ | 0.8 | 0.6 | 0.6 | 0.6 | 0.7 |
| **GHG Intensity - equity boundary [B] [J] [O]** | | | | | | **GRI 305: Emissions 2016** |
| GHG Intensity - Upstream [E] | t $CO_2e$/t production | 0.24 | 0.23 | 0.24 | 0.25 | 0.26 |
| *GHG Intensity - LNG* | t $CO_2e$/t production | 0.30 | 0.30 | 0.30 | 0.31 | 0.31 |
| GHG Intensity - Refining and GTL | t $CO_2e$/t production | 0.17 | 0.17 | 0.20 | 0.17 | 0.18 |
| GHG Intensity - Petrochemicals [F] | t $CO_2e$/t production | 0.83 | 0.92 | 0.92 | 0.89 | 0.90 |
| **Flaring emissions [O]** | | | | | | **GRI 305: Emissions 2016** |
| Flaring - Upstream (operated and non-operated) [E] [K] | 10^6 metric ton $CO_2e$ | 2.1 | 2.1 | 2.1 | 2.1 | 2.4 |
| flared - Upstream (operated and non-operated) [E] [K] | MMSCF gas flared | 30,507 | 35,186 | 33,055 | 30,435 | 34,063 |
| LNG flaring - total [L] | MMSCF gas flared [M] | 16,894 | 21,706 | 17,564 | 15,818 | 16,828 |
| LNG flaring Intensity - total [L] | % | 0.38% | 0.49% | 0.39% | 0.35% | 0.38% |
| **Methane ($CH_4$) emissions** | | | | | | |
| CH4 intensity - LNG total [L] | % | 0.005% | 0.007% | 0.005% | 0.003% | 0.004% |
| **Other $CO_2$ data - equity boundary [B] [O]** | | | | | | |
| $CO_2$ captured and stored - LNG only | 10^6 metric tons $CO_2$ | 0.56 | 0.63 | 0.62 | 0.59 | 0.68 |
| **Energy consumption - operated boundary [I]** | | | | | | **GRI302: Energy 2016** |
| Direct energy consumption | 10^6 GJ | 66 | 73 | 79 | 78 | 81 |
| **Energy intensity - operated and non-operated basis [K] [N] [O]** | | | | | | **GRI302: Energy 2016** |
| Energy intensity - Upstream [E] | GJ/t production | 3.6 | 3.6 | 3.7 | 3.8 | 3.8 |
| Energy intensity - Refining and GTL [H] | GJ/t production | 2.5 | 2.1 | 2.8 | 2.4 | 2.6 |
| Energy intensity - Petrochemicals [F] [K] | GJ/t production | 21.8 | 22.1 | 21.5 | 21.6 | 21.9 |

Notes:

[A] Global warming potentials are based on the IPCC Fifth Assessment Report using the 100-year time horizon.

[B] Equity boundary reflects QatarEnergy's share of emissions that correspond to our effective percent ownership.

[C] We have updated the totals to include our equity share of emissions from Metals and Power Generation & Water segments. We have also updated some of the historical figures following review of the data. Data does not include emissions from several international assets.

[D] Breakdown may not add up to total due to rounding.

[E] Upstream segment includes LNG liquefaction facilities.

[F] Petrochemicals segment includes fertilizers.

[G] Includes Metals, Power Generation and Water & LNG regasification assets.

[H] Scope 2 emissions are calculated using the location-based method.

[I] Operational control boundary reflects 100% of the emissions from assets that are owned and operated by QatarEnergy.

[J] In metric tons of scope 1+2 GHG emissions per metric ton of monetizable production.

[K] Operated and non-operated basis reflects 100% of the data from the relevant QatarEnergy assets in the State of Qatar irrespective of QatarEnergy's equity share in them.

[L] LNG data for this particular parameter is reported on a 100% basis for venture (i.e., not adjusted for QatarEnergy's percent ownership).

[M] Volumes were normalised to Qatar Reference Gas (QRG) heating value of 1,000 BTU/scf.

[N] Direct energy consumption per metric ton of monetizable production.

[O] We have updated some of the historical figures following review of the data.

| | | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| **Climate Change and Environmental Action** | | | | | | |
| **Air emissions - Operated basis** | | | | | | **GRI 305: Emissions 2016** |
| $SO_2$ emitted | 10^3 metric ton | 74 | 41 | 39 | 39 | 45 |
| NOx emitted | 10^3 metric ton | 11 | 14 | 14 | 11.6 | 11.4 |
| VOC emitted | 10^3 metric ton | 1.9 | 2.0 | 2.2 | 2.6 | 2.8 |
| Particulate matter (PM) emitted | 10^3 metric ton | - | - | - | 1.2 | 1.4 |
| **Water Management - Operated Basis** | | | | | | **Water and effluents 2018** |
| **Total Water Withdrawn - by source** | **10^6 m³** | **-** | **-** | **-** | **-** | **336** |
| *Surface water* | 10^6 m³ | - | - | - | - | 0 |
| *Groundwater* | 10^6 m³ | - | - | - | - | 27 |
| *Seawater* | 10^6 m³ | - | - | - | - | 256 |
| *Produced water* | 10^6 m³ | - | - | - | - | 45 |
| *From third-party [A]* | 10^6 m³ | - | - | - | - | 8 |
| **Total Water Withdrawn - by type** | **10^6 m³** | **-** | **-** | **-** | **-** | **336** |
| *Freshwater* | 10^6 m³ | - | - | - | - | 8 |
| *Other water* | 10^6 m³ | - | - | - | - | **328** |
| **Total Water Discharged - by destination** | **10^6 m³** | **-** | **-** | **-** | **-** | **281** |
| *to surface water* | 10^6 m³ | - | - | - | - | 0 |
| *to groundwater (other than to sea)* | 10^6 m³ | 14 | 32 | 25 | 28 | 32 |
| *to sea* | 10^6 m³ | 0.5 | 0.3 | 0.2 | 2.1 | 249 |
| *to third-party [B]* | 10^6 m³ | - | - | - | - | 0.1 |
| **Total Water Discharged - by type** | **10^6 m³** | **-** | **-** | **-** | **-** | **281** |
| *Freshwater* | 10^6 m³ | - | - | - | - | 0 |
| *Other water* | 10^6 m³ | - | - | - | - | 281 |
| **Total Water Consumed** | **10^6 m³** | **-** | **-** | **-** | **-** | **55** |
| Water recycled or reused | 10^6 m³ | 1.6 | 1.7 | 1.6 | 7.2 | 7.2 |
| **Waste Management - Operated Basis** | | | | | | **GRI306: Waste 2020** |
| **Total waste generated during the year** | **10^3 metric ton** | **81** | **96** | **126** | **151** | **164** |
| *Non-hazardous waste generated* | 10^3 metric ton | 74 | 79 | 118 | 137 | 149 |
| *Hazardous waste generated* | 10^3 metric ton | 7 | 17 | 8 | 14 | 15 |
| **Total waste recycled** | **10^3 metric ton** | **2.6** | **1.8** | **2.5** | **4.2** | **6.9** |
| *Non-hazardous waste recycled* | 10^3 metric ton | 1.1 | 0.9 | 0.9 | 1.0 | 3.5 |
| *Hazardous waste recycled* | 10^3 metric ton | 1.6 | 0.9 | 1.5 | 3.2 | 3.4 |
| **Total waste to landfill** | **10^3 metric ton** | **-** | **-** | **-** | **146** | **157** |
| *Non-hazardous waste to landfill* | 10^3 metric ton | - | - | - | 136 | 145 |
| *Hazardous waste to landfill* | 10^3 metric ton | - | - | - | 11 | 12 |
| Non-hazardous waste generated | % | 91% | 82% | 94% | 91% | 91% |
| Hazardous waste generated | % | 9% | 18% | 6% | 9% | 9% |
| Non-hazardous waste recycled | % | 1% | 1% | 1% | 1% | 2% |
| Hazardous waste recycled | % | 23% | 5% | 20% | 23% | 23% |
| **Spills and discharges - Operated Basis** | | | | | | **GRI306: Effluents and Waste 2016** |
| Total hydrocarbon spills to the environment [C] | $m^3$ | - | - | - | 39 | 21 |
| **Biodiversity - Operated basis** | | | | | | **GRI 304: Biodiversity 2016** |
| Total turtle nests protected | number | - | - | | 230 | 281 |
| Total hawksbill turtle hatchlings released to sea | number | - | - | - | 14,335 | 15,899 |
| Total adult turtle encountered | number | - | - | - | - | 103 |
| Total new turtle tagging | number | - | - | - | - | 61 |
| Total recapture tag | number | - | - | - | - | 42 |
| Beach clean up and turtle release event | number | - | - | - | - | 3 |

**Notes:**

--: parameter was not tracked

[A] Reported water withdrawal from third-party refers to potable water supplied by external provider, the exclusive operator of the Qatar's water and electricity distribution system (Kahramaa).

[B] Water discharge to third-party refers to municipal wastewater discharged into a public sewage network or transferred to an external sewage treatment facility overseen by the Public Works Authority of Qatar (Ashghal).

[C] Defined as the total volume of liquid hydrocarbon spills that reached the environment (surface water, soil, groundwater). Does not include volumes that were subsequently recovered.

| | | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| **Operational Responsibility** | | | | | | |
| **Workforce safety - operated basis [A]** | | **GRI 403: Occupational Health and Safety** | | | | |
| **Total work hours -workforce** | **10^6 hours** | **71** | **77** | **73** | **72** | **73** |
| *Work hours - employees* | 10^6 hours | 16 | 17 | 16 | 16 | 16 |
| *Work hours - contractors* | 10^6 hours | 55 | 60 | 57 | 56 | 57 |
| **Total fatalities - workforce** | **number** | **2** | **0** | **1** | **0** | **0** |
| *Employee fatalities* | number | 0 | 0 | 0 | 0 | 0 |
| *Contractor fatalities* | number | 2 | 0 | 1 | 0 | 0 |
| **Fatal accident rate - workforce** | **# of fatalities/100 million hours** | **2.83** | **0.00** | **1.36** | **0.00** | **0.00** |
| *Fatal accident rate - employees* | # of fatalities/100 million hours | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| *Fatal accident rate - contractors* | # of fatalities/100 million hours | 3.66 | 0.00 | 1.74 | 0.00 | 0.00 |
| **Lost time injuries - workforce** | **number** | **18** | **9** | **9** | **12** | **12** |
| *Employee lost time injuries* | number | 4 | 1 | 2 | 5 | 5 |
| *Contractor lost time injuries* | number | 14 | 8 | 7 | 7 | 7 |
| **Total lost time injury rate (LTIR) - workforce** | **# of injuries/ 10^6 work hours** | **0.25** | **0.12** | **0.12** | **0.17** | **0.16** |
| *Total lost time injury rate (LTIR) - employees* | # of injuries/ 10^6 work hours | 0.25 | 0.06 | 0.12 | 0.32 | 0.31 |
| *Total lost time injury rate (LTIR) - contractors* | # of injuries/ 10^6 work hours | 0.26 | 0.13 | 0.12 | 0.12 | 0.12 |
| **Total recordable injuries (TRI) - workforce** | **number** | **41** | **26** | **39** | **40** | **38** |
| *Employee total recordable injuries (TRI)* | number | 11 | 2 | 3 | 9 | 8 |
| *Contractor total recordable injuries (TRI)* | number | 30 | 24 | 36 | 31 | 30 |
| **Total recordable injury rate (TRIR) - workforce** | **# of injuries/ 10^6 work hours** | **0.58** | **0.34** | **0.53** | **0.56** | **0.52** |
| *Total recordable injury rate (TRIR) - employees* | # of injuries/ 10^6 work hours | 0.68 | 0.12 | 0.19 | 0.57 | 0.49 |
| *Total recordable injury rate (TRIR) - contractors* | # of injuries/ 10^6 work hours | 0.55 | 0.40 | 0.63 | 0.55 | 0.53 |
| **Process safety and asset integrity - operated basis** | | | | | | **GRI 11: Oil and Gas Sector 2021** |
| Number of Tier 1 process safety events [B] | number | 1 | 3 | 1 | 2 | 6 |
| Number of Tier 2 process safety events [B] | number | 8 | 6 | 2 | 1 | 1 |
| Number of Tier 3 process safety events [C] | number | 632 | 646 | 766 | 753 | 655 |

[A] In line with industry approach, we include contractor personnel under contractual Modes 1 and 2 as defined in n IOGP Report 423 - HSE management – guidelines for working together in a contract environment, published in 2017

[B] Tier 1 and Tier 2: As per IOGP Report 456, an unplanned or uncontrolled Loss of Primary Containment is deemed to be a tier 1 or a tier 2 event based on the severity of the harm or damage caused, and the amount of material released.

[C] Tier 3: Most events are classified as tier 3 events, which consist of minor leaks of oil, gas, hydrocarbons, other chemicals and water.

| | | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| **Social and economic performance** | | | | | | |
| **Growing our talents** | | | | | | **GRI 401: Employment 2016** |
| Employee headcount [A] | number | 8,779 | 8,272 | 8,394 | 8,575 | 9,114 |
| New joiners [B] | number | 455 | 240 | 481 | 582 | 772 |
| Voluntary attrition [C] | % | 1.8% | 1.7% | 1.8% | 2.2% | 1.8% |
| Training hours - total | hours | 206,005 | 45,088 | 201,444 | 181,879 | 224,399 |
| Average hours of training per employee [D] | hours | 23.5 | 5.5 | 24.0 | 21.2 | 24.6 |
| Special recognition awards | number | - | - | 485 | 814 | 887 |
| **Economic performance [E]** | | | | | | **GRI 201: Economic performance 2016** |
| Crude oil production | 10^3 bbl/d | 246 | 295 | 289 | 294 | 294 |
| North Field Alpha Lean Gas | 10^6 scf/d | 681 | 717 | 632 | 661 | 652 |
| Total refinery throughput | 10^3 bbl/d | 110 | 107 | 107 | 95 | 105 |
| **Procurement - Goods & Services** | | | | | | **GRI 204: Procurement practices 2016** |
| **QatarEnergy Procurement** | | | | | | |
| Total procurement spend | mln QR | 11,640 | 9,198 | 9,600 | 12,542 | 12,100 |
| *Spend on suppliers based in Qatar* | mln QR | 9,200 | 6,386 | 7,400 | 9,596 | 6,900 |
| Local procurement spending | % | 79% | 69% | 77% | 77% | 57% |
| **Local procurement** | | | | | | |
| Registered suppliers | number | 5,268 | 5,833 | 6,331 | 6,602 | 5,809 |
| *Registered suppliers based in Qatar* | number | 2,662 | 2,947 | 3,130 | 3,337 | 3,146 |
| Percentage of Qatari registered suppliers | % | 51% | 51% | 49% | 51% | 54% |
| **In-Country Value (ICV)** | | | | | | |
| ICV registered companies - all sectors | number | - | - | - | - | 3,550 |
| ICV contribution - energy sector only | mln QR | - | - | - | - | 4,870 |
| ICV certifications - status all sectors [F] [I] | number | - | - | 800 | 980 | 1,870 |
| ICV certifiers - status all sectors [F] | number | - | - | 12 | 12 | 24 |
| ICV audit waves - all sectors | number | - | - | 3 | 2 | 2 |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Supplier Development [G]** | | | | | | |
| Total awarded suppliers [H] | number | - | - | - | 51 | 71 |
| Suppliers actively on development program | number | 5 | 5 | 17 | 19 | 37 |
| Suppliers supported on land allocation | number | 1 | 1 | 11 | 13 | 15 |
| Suppliers supported with fund allocation | number | 0 | 2 | 3 | 6 | 8 |
| **Society Investment Programs** | | | | | **GRI 203: Indirect economic impacts 2016** | |
| QatarEnergy corporate spend | mln QR | 29.2 | 20.1 | 20.6 | 22.5 | 19.3 |

**Notes:**

--: parameter was not tracked

[A] Reflects the total number of employees as of December 31. Historical data was updated to align with the updated definition.

[B] Excludes employees joining QatarEnergy as a result of integration.

[C] This metric is calculated using the 12 months rolling average.

[D] Calculated as the total training hours divided by the employee headcount as of December 31

[E] Please refer to our latest Annual Review for QatarEnergy's financial performance, available on www.qatarenergy.qa

[F] Reflects the total number as of December 31 of each year.

[G] All metrics in this section are cumulative - i.e., reflect the number of suppliers since the inception of the program. We have updated some of the historical numbers following review of data

[H] In 2022 Sustainability Report this metric was called "Supplier development program registration status"

[I] We updated some of the historical figures following review of the data.

# Appendix F: Assurance statements

## LRQA Independent Assurance Statement

### Relating to QatarEnergy's Assertion in the sustainability report for the Calendar Year 2023.

This Assurance Statement has been prepared for QatarEnergy in accordance with our contract.

#### Terms of Engagement

LRQA was commissioned by QatarEnergy to provide independent assurance of its assertion for GHG (Greenhouse Gas) emissions inventory (with regard to assessment standard, ISO14064-3:2019 Specification with guidance for the verification and validation of greenhouse gas statements) and Health, Safety & Environment (HSE) parameters for the Calendar Year 2023 against the assurance criteria (below) to a limited level of assurance and materiality of 5% using LRQA's verification procedure. LRQA's verification procedure is based on current best practise and is in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered QatarEnergy's operations & its affiliates (as mentioned in Annex-1) in the State of Qatar and other countries and specifically the following requirements:

- Verifying conformance with:
  - QatarEnergy's reporting methodologies for the selected datasets;
  - API Compendium 2021 for Greenhouse Methodologies for Oil and Gas Industries; and
  - World Resources Institute / World Business Council for Sustainable Development Greenhouse Gas Protocol: A corporate accounting and reporting standard, revised edition Jan 2015 (otherwise referred to as the WRI/WBCSD GHG Protocol) for the GHG data[1].
- Reviewing whether the Report has taken account of:
  - International Petroleum Institute Environmental Conservation Association (IPIECA) sustainability reporting guidance - module 4 (indicators Env-3 to Env-6) and module 5 (indicators SHS3 and SHS6).
- Evaluating the accuracy and reliability of data and information for only the selected indicators listed below:
  - Direct (Scope 1), Energy Indirect (Scope 2) GHG emissions.
  - And other HSE parameters as listed in Annex-2.

Our assurance engagement excluded the data and information of QatarEnergy's scope-3 GHG emissions.

LRQA's responsibility is only to QatarEnergy. LRQA disclaims any liability or responsibility to others as explained in the end footnote. QatarEnergy's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of QatarEnergy.

#### LRQA's Opinion

Based on LRQA's approach nothing has come to our attention that would cause us to believe that QatarEnergy has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Table 1 below.

[1]. http://www.ghgprotocol.org/

The opinion expressed is formed on the basis of a limited level of assurance[2] and at the materiality of 5%.

## Table 1. Summary of QatarEnergy Key Data for CY2022:

| Scope of GHG emissions All Assets | Million Tonnes $CO_2e$ | Million Tonnes $CO_2e$ (on QatarEnergy equity basis) |
|---|---|---|
| Direct GHG emissions (Scope 1) | 102 | 43.9 |
| Energy indirect GHG emissions (Scope 2, Location-based) | 4.8 | 2.2 |
| Total | **106.8** | **46.1** |

Note:
(Scope 2, Location-based) as well as (Scope 2, Market-based) are defined in the GHG Protocol Scope 2 Guidance.

## LRQA's Approach

LRQA's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- conducting remote verifications and reviewing processes related to the control of GHG emissions data and records;
- interviewing relevant employees of the organization responsible for managing GHG emissions data and records;
- assessing QatarEnergy's data management systems to confirm they are designed to prevent significant errors, omissions or misstatements in the report as per QatarEnergy GHG Accounting and Reporting procedures and, GHG Accounting and Reporting Plan;
- reviewing GHG Emissions for entities of QatarEnergy and its affiliates as mentioned in Annex-(1) based on review & verification of individual entity GHG inventory summaries against GHG Emission Statements issued by an independent third-party verifier and with provided declaration of equities of such entities as applicable;
- reviewing the QatarEnergy HSE performance indicators and cross-verifying through monthly & quarterly performance reports, data checks by run reports from online systems and software applications in implementation; and
- verifying historical GHG emissions data and records for HSE parameters at an aggregated level for the calendar year 2023.

[2] The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

## LRQA's Standards, Competence and Independence

LRQA implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation that are at least as demanding as the requirements of the International Standard on Quality Control and comply with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants.

LRQA ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

LRQA is the certification body for ISO 9001, ISO 14001, ISO 45001 for some of QatarEnergy Entities/ affiliates (E.g., QAFCO). We also provide this entity with a range of training services related to management systems. The verification and certification assessments, together with the training, are the only work undertaken by LRQA for this entity and as such does not compromise our independence or impartiality.

Signed

12 June 2024

Ketan Deshmukh

Lead Verifier, LRQA Limited

LRQA reference: QAT00000072

LRQA Group Limited, its affiliates and subsidiaries, and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'LRQA'. LRQA Group Limited assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant LRQA Group Limited entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

The English version of this Assurance Statement is the only valid version. LRQA Group Limited assumes no responsibility for versions translated into other languages.

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## Annex 1

| Assets (QatarEnergy owned & operated) |
|---|
| QatarEnergy Mesaieed Operations (NGL Complex) |
| QatarEnergy O&GP (Dukhan Operations) |
| QatarEnergy Offshore Operations (Qatar Energy Offshore) |
| QatarEnergy Refining Operations (Qatar Energy Refinery) |
| **Assets (JV's – Joint Ventures)** |
| Qatargas (QG) |
| Dolphin Energy Limited (DEL) |
| Qatar Fertiliser Company (QAFCO) |
| Qatar Fuel Additives Company (QAFAC) |
| Qatar Petrochemical Company (QAPCO) |
| Qatar Chemical Company (Q-Chem, MIC & RLC) |
| Pearl GTL |
| Oryx GTL |
| Qatar Steel (QSteel) |
| Qatar Aluminium (Qatalum) |
| Umm Al Houl Power Company (UHPC) |
| Qatar Power Company (QPower) |
| Ras Girtas Power Company (RGPC) |
| Mesaieed Power Company Ltd (MPCL) |
| Ras Laffan Power Company (RLPC) |
| Qatar Electricity and Power Company (QEWC) |
| North Oil Company (NOC) |
| Qatar Petroleum Development Co Ltd (QPD) |
| Al-Khalij Oil. |
| South Hook LNG (Terminal) |
| Petrochemical Corporation of Singapore Pvt Ltd (PCS) |
| The Polyolefin Company Pte Ltd (TPC) |
| North Adriatic LNG (Terminal) |
| Parque das Conchas (BC-10) |
| Total E&P Congo (TEPC) |

## Annex 2-A - Environmental Parameters

| Indicator | Unit | Year 2023 |
|---|---|---|
| Total Water Withdrawn (from all sources) | 10^6 $m^3$ | 336 |
| Water recycled or reused | 10^6 $m^3$ | 7.2 |
| SO2 emitted | Metric Tonne | 44,539 |
| NOx emitted | Metric Tonne | 11,368 |
| VOC | Metric Tonne | 2,808 |
| Particulate Matter (PM) Emitted | Metric Tonne | 1,402 |
| Total waste recycled | 10^3 Metric Tonne | 6.9 |
| Total waste generated during the year | 10^3 Metric Tonne | 164 |
| Total Spills to the Environment (Hydrocarbon) | $m^3$ | 21 |
| Total number of turtle nests protected | Number | 281 |
| Total number of hawksbill turtle hatchlings released to the sea | Number | 15,899 |

## Annex 2-A - Environmental Parameters

| Indicator | Unit | 2023 |
|---|---|---|
| Work hours - Total | 10^6 hours | 73 |
| Work hours - employees | 10^6 hours | 16 |
| Work hours - contractors | 10^6 hours | 57 |
| Employee fatalities | Number | 0 |
| Contractor fatalities | Number | 0 |
| Total fatalities | Number | 0 |
| Employee total recordable injuries | Number | 8 |
| Contractor total recordable injuries | Number | 30 |
| Number of Tier 1 process safety events | Number | 6 |
| Number of Tier 2 process safety events | Number | 1 |
| Number of Tier 3 process safety events | Number | 655 |
| Employee lost time injuries | Number | 5 |
| Contractor lost time injuries | Number | 7 |
| Lost time injury rate (LTIR) (employees and contractors) (per 1 million working hours) | per 1 million working hours | 0.16 |
| LTIR of employees (per 1 million working hours) | per 1 million working hours | 0.31 |
| LTIR of contractors (per 1 million working hours) | per 1 million working hours | 0.12 |
| Total recordable injury rate (employees) (per 1 million working hours) | per 1 million working hours | 0.49 |
| Total recordable injury rate (contractors) (per 1 million working hours) | per 1 million working hours | 0.53 |
| Total recordable injury rate (employees and contractors) (per 1 million working hours) | per 1 million working hours | 0.52 |

**Notes:**

Note: Performance indicators in Annex 2-A and 2-B are for QatarEnergy Operated Assets only.

## Greenhouse Gas Verification Statement Number CCP256927/05/24 QE

The inventory of Greenhouse Gas emissions in Calendar Year 2023 dated April 2024 of:

## QatarEnergy (operated assets)

Doha,

Qatar

Has been verified by SGS in accordance with ISO-14064- 3 :2019 to represent:

**5,921,447 Tonnes of CO2e Scope 1, Stationary combustion sources**

**660,337 Tonnes of CO2e Scope 2, (Location based)**

## 6,581,784 Tonnes of CO2e Total

and as having been compiled in accordance with:

## QatarEnergy Accounting and Reporting Procedure for Greenhouse Gas Emissions

Authorised by

**Lisa Gibson**

Date: 16th May 2024

SGS United Kingdom Limited

Inward Way, Rossmore Business Park, Ellesmere Port,

Cheshire CH65 3EN Tel +44 (0)151 350 6666

www.sgs.com/climatechange



This Statement is not valid without the full Greenhouse Gas Assertion and the verification scope, objectives, criteria and findings available on pages 2 to 3 of this Statement.

## Scope

GHG's: $CO_2$, $CH_4$, $N_2O$

Boundaries: Company activities within Qatar as detailed in the facility accounting and reporting plan within the operated assets of:

- NGL
- Dukhan
- QatarEnergy Refinery
- QatarEnergy Offshore

Sources: Combustion sources, flares and process emissions, imported electricity

Reporting period: 2023 Calendar Year Intended user of the verification statement: Internal use and external stakeholders

## Level of Assurance and Materiality

The level of assurance applied was reasonable level of assurance. The materiality level applied was 2%

## Verification Process

SGS' approach is risk-based, drawing on an understanding of the risks associated with calculating GHG emission information and the controls in place to mitigate these risks. Our examination included assessment, on a sample basis, of evidence relevant to the reporting of emission information.

We planned and performed our work to obtain the information, explanations and evidence that we considered necessary to provide a reasonable level of assurance that the reported GHG emissions for the period are fairly stated. We conducted our verification with regard to the GHG assertion which included assessment of GHG information system and monitoring and reporting methodology. This assessment included the collection of evidence supporting the reported data, and checking whether the provisions of the verification criteria, were consistently and appropriately applied.

## Verification Conclusion

The GHG report for the period 1st January 2023 to 31st December 2023 of QatarEnergy operated assets, disclosing emissions of 5,921,447 metric tonnes of $CO_2$ equivalent Scope 1 stationary combustion emissions, 660,337 metric tonnes of $CO_2$ equivalent Scope 2 emissions (location based) and 6,581,784 cumulative metric tonnes of $CO_2$ equivalent, (location based), are verified by SGS to a reasonable level of assurance, consistent with the agreed verification scope, objectives and criteria listed above.

It is the opinion of SGS that the data quality management system, data quality and completeness of reporting are of sufficient quality when assessed against the verification criteria, not to have resulted in a material error.

This statement shall be interpreted with the GHG assertion of QatarEnergy operated assets as a whole.

This Statement is not valid without the full Greenhouse Gas Assertion and the verification scope, objectives, criteria and findings available on pages 2 to 3 of this Statement.

## Scope

GHG's: $CO_2$, $CH_4$, $N_2O$

Boundaries: Company activities within Qatar as detailed in the facility accounting and reporting plan within the operated assets of:

- NGL
- Dukhan
- QatarEnergy Refinery
- QatarEnergy Offshore

Sources: Combustion sources, flares and process emissions, imported electricity

Reporting period: 2023 Calendar Year Intended user of the verification statement: Internal use and external stakeholders

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It is the opinion of SGS that the data quality management system, data quality and completeness of reporting are of sufficient quality when assessed against the verification criteria, not to have resulted in a material error.

This statement shall be interpreted with the GHG assertion of QatarEnergy operated assets as a whole.

This Statement is not valid without the full Greenhouse Gas Assertion and the verification scope, objectives, criteria and findings available on pages 2 to 3 of this Statement.

# Appendix G: Equity Holdings

## QatarEnergy's equity holdings in subsidiaries, joint ventures, joint operations and associates included in GHG emissions for 2023

| Sr. No. | Entity | Country | QatarEnergy's effective equity holding at 31 Dec 2023 |
|---|---|---|---|
| 1 | QatarEnergy LNG | | (Note 1) |
| A | LNG Trains | Qatar | See A1-A8 rows below |
| *A1* | *QatarEnergy LNG N(1)* | Qatar | 100% |
| *A2* | *QatarEnergy LNG N(2)* | Qatar | 67.50% (Note 2) |
| *A3* | *QatarEnergy LNG N(3)* | Qatar | 68.50% |
| *A4* | *QatarEnergy LNG N(4)* | Qatar | 70% |
| *A5* | *QatarEnergy LNG N(3)&N(4)* | Qatar | 69.25% (Note 3) |
| *A6* | *QatarEnergy LNG S(1)* | Qatar | 63% |
| *A7* | *QatarEnergy LNG S(2)* | Qatar | 67.05% |
| *A8* | *QatarEnergy LNG S(3)* | Qatar | 70% |
| B | Al Khaleej Gas (AKG) | Qatar | AKG-1: 0% AKG-2: 20% |
| C | Barzan Gas | Qatar | 93% |
| D | Laffan Refinery | Qatar | 72% |
| 2 | Dolphin Gas Project | Qatar | 0% (Note 4) |
| 3 | Qatar Fertiliser Company (QAFCO) | Qatar | 51% |
| 4 | Qatar Melamine Company (QMC) | Qatar | 51% |
| 5 | Gulf Formaldehyde Company (GFC) | Qatar | 35.7% |
| 6 | Qatar Fuel Additives Company (QAFAC) | Qatar | 25.5% |
| 7 | Qatar Petrochemical Company (QAPCO) | Qatar | 40.80% |
| 8 | Qatofin Company Limited (QATOFIN) | Qatar | 25.97% |
| 9 | Qatar Vinyl Company (QVC) | Qatar | 57.85% (Note 5) |
| 10 | Qatar Chemical Company (Q-Chem I) | Qatar | 30.35% (Note 5) |
| 11 | Qatar Chemical Company II (Q-Chem II) | Qatar | 30.35% (Note 5) |
| 12 | Ras Laffan Olefins Company (RLOC) | Qatar | 29.04% (Note 5) |
| 13 | Petrochemical Corporation of Singapore PTE Ltd. (PCS) | Singapore | 24.5% |
| 14 | The Polyolefin Company (Singapore) Pte Ltd. (TPC) | Singapore | 14.7% |
| 15 | Pearl GTL | Qatar | 0% (Note 4) |
| 16 | Oryx GTL | Qatar | 51% |
| 17 | QatarEnergy Refinery | Qatar | 100% owned by QatarEnergy |
| 18 | NGL Complex | Qatar | 100% owned by QatarEnergy |

| | | | |
|---|---|---|---|
| 19 | Dukhan Operations | Qatar | 100% owned by QatarEnergy |
| 20 | QatarEnergy Offshore | Qatar | 100% owned by QatarEnergy |
| 21 | Al Khalij Field (Block 6) | Qatar | 60% |
| 22 | North Oil Company (NOC) | Qatar | 70% |
| 23 | Qatar Petroleum Development Co. Ltd. (Japan) (QPD) (Al Karkara and A-Structures fields) | Qatar | 0% (Note 4) |
| 24 | Qatar Steel | Qatar | 51% |
| 25 | Qatar Aluminium Limited (Qatalum) | Qatar | 25.5% |
| 26 | Umm Al Houl Power Company (UHPC) | Qatar | 5% |
| 27 | Qatar Power Company (QPOWER) | Qatar | 0% |
| 28 | Ras Girtas Power Company (RGPC) | Qatar | 15% |
| 29 | Mesaieed Power Company (MPCL) | Qatar | 20% |
| 30 | Ras Laffan Power Company (RLPC) | Qatar | 10% |
| 31 | Qatar Electricity & Water Company (QEWC) | Qatar | 0% |
| 32 | South Hook LNG Terminal (SHLNG) | UK | 67.5% |
| 33 | North Adriatic LNG Terminal (ALNG) | Italy | 22.02% |
| 34 | BC-10 | Brazil | 23% |
| 35 | TotalEnergies E&P Congo (TEPC) | Congo | 15% |

Note 1: Emissions from common facilities are allocated to entities A-D based on respective ownership.

Note 2: N(2) venture consists of two LNG trains (trains 4 and 5). QatarEnergy has 70% equity in Train 4 and 65% in Train 5. For the purposes of GHG emissions accounting, we used 67.50%.

Note 3: N(3) & N(4) are identical LNG ventures and are operated by QatarEnergy LNG as a single operation. Therefore, their GHG is reported as a single number and the combined QatarEnergy equity for N(3) & N(4) for the purposes of accounting and reporting of GHG emissions is 69.25%.

Note 4: The Group's interest in these joint operations is based on contractual terms of production sharing arrangement which vary from time to time.

Note 5: On December 31, 2023, QatarEnergy's shareholding in Mesaieed Petrochemical Holding Company (MPHC) decreased from 65.41% to 57.9%. For the purposes of accounting and reporting of 2023 GHG emissions, we used the following equity holdings: QVC = 62.03%, Q-Chem and Q-Chem II = 34.06% and RLOC = 31.02%. These equity holdings reflected QatarEnergy's effective equity holdings during 2023.

# Appendix H: Our membership in industry trade associations and voluntary sustainability-related initiatives

**QatarEnergy is a member of numerous trade associations and voluntary initiatives that provide platforms for exchanging experience and encouraging best practices across a range of sustainability-related topics.**

| | Environmental sustainability & climate change | Human rights and social responsibility | Safety and technical standards | Technology & Innovation | Transparency & governance |
|---|---|---|---|---|---|
| Energy Institute (EI) | | | ✓ | ✓ | |
| Extractive Industries Transparency Initiative (EITI) | | | | | ✓ |
| Gulf Petrochemicals and Chemicals Association (GPCA) | ✓ | | ✓ | | ✓ |
| International Association of Oil & Gas Producers (IOGP) | ✓ | ✓ | ✓ | | ✓ |
| IPIECA | ✓ | ✓ | ✓ | | ✓ |
| Methane Guiding Principles (MGP) Coalition | ✓ | | ✓ | ✓ | ✓ |
| OGMP 2.0 | ✓ | | ✓ | ✓ | ✓ |
| Global Flaring and Methane Reduction Partnership | ✓ | | ✓ | ✓ | ✓ |

# Appendix I: NDS 3 ambitions, targets and actions relevant to QatarEnergy

Third National Development Strategy (NDS 3) for the State of Qatar 2024–2030, prepared under the guidance of His Highness the Amir Sheikh Tamim Bin Hamad Al Thani, outlines the plan for the next phase of Qatar's development journey towards realizing the Qatar National Vision 2030 (QNV 2030). NDS 3 is built around seven strategic national outcomes.

Each strategic national outcome specifies Qatar's ambitions and national targets for 2030 to achieve the ambitions. NDS 3 also defines key actions required to be undertaken on a national level between 2024–2030, which will support in meeting the set targets. The following table summarizes the ambitions, targets and actions within NDS 3 relevant to QatarEnergy. Further details of NDS 3 are provided by Planning and Statistics Authority.

| | |
|---|---|
| **1 - Sustainable Economic Growth**<br><br>Adopt a sustainable growth model to transform into a competitive, productive, diversified and innovative economy | **Relevant Ambitions:**<br>• Expanded core energy sector.<br>• Long-term competitive specialized clusters.<br>• A world-class business environment and trading hub.<br>• Scale-up of innovation eco-system. |
| | **Relevant 2030 Targets:**<br>• Overall GDP growth of 4%.<br>• Net FDI attraction of USD 100 billion. |
| | **Relevant Actions:**<br>• Strengthen role as a global energy leader and build a position in new emerging fields of low-carbon energy.<br>• Provide private sector incentives to build capabilities and improve operational efficiency.<br>• Provide incentives to the private sector to scale-up innovation.<br>• Further develop scientific research capabilities in key strategic areas. |
| **2 - Fiscal Sustainability**<br><br>Strengthen the long-term stability, health and resilience of the government budget and its balance sheet | **Relevant Ambitions:**<br>• Sustainable fiscal budget and debt levels.<br>• Enhanced public expenditure efficiency and effectiveness. |
| | **Relevant 2030 Targets:**<br>• Sovereign credit rating of AA/Aa2 with stable outlook. |
| | **Relevant Actions:**<br>• Align planning and budgeting processes and implement program-based budgeting across government institutions.<br>• Streamline procurement to enhance efficiency, improve flexibility and quality. |

| | |
|---|---|
| **3 - Future-Ready Workforce**<br><br>Enable and develop citizens into globally competitive individuals and attract high-skilled expatriates as long-term partners in Qatar's transformation journey | **Relevant Ambitions:**<br>• A skilled and productive labor force<br>• Higher participation of Qataris across economic sectors<br>• A motivated and more competitive talent base |
| | **Relevant 2030 Targets:**<br>• Skilled and high-skilled jobs more than 46% of total workforce<br>• 2% labor productivity growth<br>• More than 20% share of Qatari workforce in private and mixed sectors<br>• >18% of graduates in STEM fields<br>• Average PISA score of 483 |
| | **Relevant Actions:**<br>• Deploy upskilling programs and incentives to increase enrolment of Qataris in the private sector<br>• Enhance the higher education value proposition to increase access and better align programs with labour market needs<br>• Strengthen early childhood education |
| **4 - Social Cohesion**<br><br>Preserve Qatar's values and strong family bonds, fostering active citizenship, an integrated community and harmonious society to thrive in a globalized world | **Relevant Ambitions:**<br>• A decent standard of living for all individuals<br>• Strong and resilient families<br>• A participatory community that empowers vulnerable groups<br>• Empowered women across all fields<br>• Enhanced active citizenship |
| | **Relevant 2030 Targets:**<br>• Workforce participation rate for people with disabilities of 30%<br>• Volunteering rate of 10% |
| | **Relevant Actions:**<br>• Empower civil society organizations and the private sector to provide social support<br>• Strengthen support systems to empower women culturally, socially, economically<br>• Expand the voluntary ecosystem and promote volunteering work in the country<br>• Develop programs to advance responsible citizenship and participation |
| **5 - Quality of life**<br><br>Provide quality of life for all through excellence in healthcare and public safety, with a vibrant cultural life, becoming a best-in-class environment for families | **Relevant Ambitions:**<br>• Increased sport participation.<br>• Functional & accessible infrastructure.<br>• Low crime and cybercrime. |
| | **Relevant 2030 Targets:**<br>• Not Applicable. |
| | **Relevant Actions:**<br>• A national healthy lifestyle.<br>• Introduce programs tailored for youth preferences and developmental needs.<br>• Widen the accessibility and attractiveness of recreational facilities. and public spaces.<br>• Revamp capabilities to increase efficiency in combating cybercrimes. |
| **6 - Environmental Sustainability**<br><br>Conserve natural resources, protect ecosystems, reduce greenhouse gas emissions and build resilience against future environmental threats | **Relevant Ambitions:**<br>• Enhanced air quality.<br>• Protected biodiversity.<br>• Well-managed water resources.<br>• A thriving circular economy. |
| | **Relevant 2030 Targets:**<br>• GHG emissions reduced by 25% relative to the business-as-usual.<br>• 30% of Qatar's land area and 30% of its marine area protected.<br>• 30% of degraded natural habitats restored.<br>• Groundwater extraction reduced by 70%.<br>• 4 GW renewable energy capacity.<br>• Water consumption reduction. |
| | **Relevant Actions:**<br>• Implement emission mitigation measures across key sectors, including oil and gas, power and water, transportation and building, construction and industry.<br>• Natural habitat and ecosystems protection and rehabilitation.<br>• Ensure a reliable and sustainable water provision to safeguard the long-term availability of water resources, maintaining the quality of all water sources and promoting sustainable water conservation practices.<br>• Integrate circular principles into industrial processes, encouraging the development and adoption of sustainable, resource-efficient practices. |

| | |
|---|---|
| **7 - Government Excellence**<br><br>Become a world-class provider of government services to citizens, residents, businesses, and institutions and a top nation for effective, efficient and agile governance | **Relevant Ambitions:**<br><br>Not Applicable |
| | **Relevant 2030 Targets:**<br><br>Not Applicable |
| | **Relevant Actions:**<br><br>Not Applicable |

# Appendix J: Alignment to NCCAP

National Climate Change Action Plan (NCCAP) consolidates the State of Qatar›s efforts regarding climate change action under a single framework. NCCAP defines potential mitigation and adaptation measures that have been considered for Qatar. It also lays out the enablers for implementation of the action plan, which have to be developed for a successful transition to a sustainable future.

The climate change mitigation measures cover the following local sectors: oil and gas; power and water; transportation; building, construction and industry; as well as other sectors.

Adaptation measures have been defined for sectors, which may be impacted by climate change. These include: economy; infrastructure; water management; healthcare; biodiversity; food security.

Enablers for implementation, which require development include: community awareness and communication; environmental education; technology research and development; incentives and legislation.

NCCAP targets a 25% reduction in Qatar's GHG emissions by 2030 against a business-as-usual scenario with baseline year of 2019.

The following table highlights the mitigation measures, adaptation plans and enablers relevant to QatarEnergy:

| | |
|---|---|
| **Climate change mitigation measures** | **Oil and gas:**<br>• Energy efficiency program.<br>• Fugitive methane emissions reduction.<br>• Flaring reduction.<br>• GHG reduction by exported energy.<br>• CCUS. |
| | **Power and water:**<br>• Renewable energy expansion.<br>• Energy conservation in buildings.<br>• Water conservation.<br>• Enhance energy and water production efficiency. |
| | **Transport:**<br>• Euro VI standard.<br>• Electrification.<br>• Improvements in shipping sector. |
| | **Building, construction and industry:**<br>• Recycling in construction.<br>• Circular industrial practices.<br>• Rooftop solar panels and energy savings. |
| | **Other sectors:**<br>• Optimization of waste management. |

| | |
|---|---|
| **Adaptation measures** | **Economy:**<br>• Balancing a hydrocarbon-based economy and a more knowledge-based economy.<br>• Local investment.<br>• Expanding and strengthening the national production base.<br>• Creating opportunities for entrepreneurship development.<br>• Innovation. |
| | **Water management:**<br>• Reducing water consumption for industrial uses.<br>• Improving energy efficiency in water production and supply chain.<br>• Increasing use of recycled water.<br>• Preserving groundwater.<br>• Protecting and preserving marine and coastal environment. |
| | **Biodiversity:**<br>• Improving technical knowledge of biodiversity in Qatar and creating biodiversity databases including species classification.<br>• Conservation of biodiversity and building local capacities.<br>• Achieving environmental balance.<br>• Sustainable use of natural resources.<br>• Equitably sharing the benefits of biodiversity.<br>• Breeding and reintroducing endangered animals. |
| **Enablers for implementation** | **Community awareness and communication:**<br>• Promoting environmental awareness and understanding of climate change.<br>• Promote positive societal and behavioral changes.<br>• Cooperation and coordination amongst stakeholders. |
| | **Environmental education:**<br>• Climate change and environmental issues training for professionals.<br>• Improve knowledge and understanding of environmental science and climate change.<br>• Develop skills to overcome climate change related challenges. |
| | **Technology research and development:**<br>• Innovation and technology development and deployment for reducing emissions, environmental degradation, waste management and water scarcity.<br>• Establishing partnerships and supporting technical research. |