

THE PIONEER

THE MAGAZINE OF QATARGAS OPERATING COMPANY LIMITED

ISSUE 156, QUARTER ONE 2019

QATARGAS: LEADING THE WAY

Company's Pace-Setting Innovative Technologies



Meet Energy Demand



Increase Sustainability



Drive Expansion



Boost Environmental Performance



Reduce Costs



Ensure System Integrity

JBOG WINS QATAR SUSTAINABILITY AWARD

Landmark Qatargas Facility Recognised for Significant CO₂ Reduction

PETROTECH INDIA

CEO: LNG A "Destination Fuel" for Emerging Energy Markets

77 MTPA

七千七百万吨产能

The World's Premier LNG Company



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قطر غاز
QATARGAS

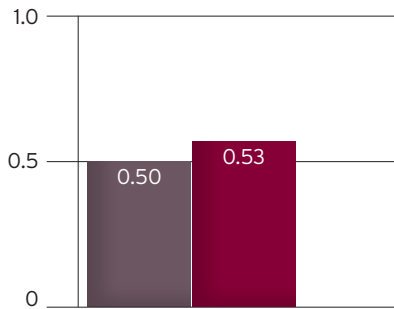
QATARGAS CORPORATE SCORECARD

YEAR TO DATE DECEMBER 2018

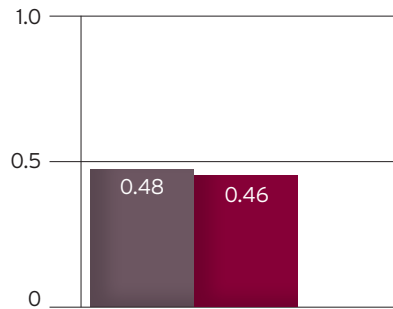


SAFETY, HEALTH AND ENVIRONMENTAL PERFORMANCE

TRIF
{Total Recordable
Injury Frequency}



Flaring (Onshore)
{% of Sweet Gas}



■ Target ■ Actual

EFFICIENT AND RELIABLE OPERATIONS

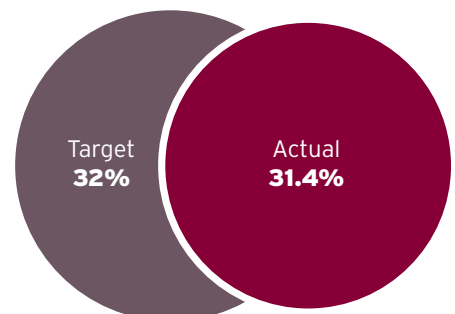
	Industry Average	Actual	Target
LNG Reliability	N/A	97.5%	98.0%
Laffan Refinery Reliability	N/A	99.8%	98.3%
Well Availability	N/A	98.0%	96%

CUSTOMER SATISFACTION

	Actual	Target
Late deliveries - LNG	0%	0%
Positive Responses to Customer Change Requests (over and above firm commitments)	97%	85%

QATARIZATION

A High Calibre and Diverse Workforce
{Total Headcount}



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future growth

COMPANY WINS 09 5TH CONSECUTIVE SWORD & GLOBE OF HONOUR AWARDS

Commercial and Shipping
Group's continual achievements
in safety and environmental
management recognised
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experts to share best practices

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17th Annual Qatargas CEO
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seeking career excellence

1 REVIEWING YEAR 20 AT QATARGAS TOWN HALL

First post-integration Town Hall
sets the strategic tone for the
next five years



LOYAL EMPLOYEES 21 RECOGNISED AT LONG SERVICE AWARDS

Annual event congratulated
long-serving 1,200 and thanked
Qatargas employees for their
loyalty and commitment

JBOG WINS QATAR 22 SUSTAINABILITY AWARD

Qatargas' landmark recovery
project recognised as a
significant achievement in
sustainable development and
environmental protection

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Qatargas celebrates
Qatar National Day at offices
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Thailand and China



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Plenty on offer as well-attended
Sport Day events gather
employees and their families
in Doha and Al Khor

PIONEER

THE MAGAZINE OF QATARGAS
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A WILLINGNESS TO INNOVATE AND A DEEPLY ENTRENCHED REPUTATION FOR RELIABILITY

COMPANY POISED TO TAKE ADVANTAGE OF THE OPPORTUNITIES RESHAPING THE GLOBAL LNG MARKET



The Company, thanks to its willingness to innovate and a deeply entrenched reputation for reliability, is ideally poised to take advantage of the many opportunities

that are reshaping the current global liquefied natural gas (LNG) market.

Integrated for strength and success

As a result of the wise strategic decision to undergo a significant integration recently, Qatargas has entered 2019 with increased vigour and is now well-equipped to maintain its position as the World's Premier LNG Company.

Our first post-integration Town Hall highlighted how effectively our management and employees have adapted systems, processes, strategy and delivery, providing Qatargas with an exceptionally solid foundation for a productive, safe and profitable year ahead.

Innovation at the heart of Qatargas

Building on the competitive strength, its technical and professional ability, and a consistent commitment to excellence, I believe that Qatargas will continue to lead the global LNG industry.

Key to this will be advocating globally for LNG as cleaner source of energy and as a destination fuel, which is increasingly playing an important role during the current energy transition.

In a recent address at the Baker Hughes GE 2019 Annual Meeting in Florence, Italy, I spoke extensively about Qatargas' investment in technology and how it lessens the impact of our operations on the environment. This encompasses - but is not limited to - the landmark Jetty Boil-Off Gas Recovery Facility, our flare minimisation and wastewater campaigns, the technologies in place at our LNG trains, such as feed gas treatment and natural gas liquids recovery, and the slow speed diesel engines that make our LNG carriers more efficient.

Qatargas will continue to prioritise best-in-class technological advancements to ensure we meet the challenges that lie ahead, such as sustainability, expansion, cost competitiveness, environmental performance and above all, the safety of our people.

Looking forward

The Town Hall meeting outlined not only Qatargas' successes, but also areas for improvement and the objectives that the Company aims to meet. These include expanded and sustained LNG production, improved uptime availability and reliability, the achievement of our Qatarization targets, and penetration of new markets.

I believe that by sharing expertise, proactively seeking solutions, and identifying and capitalising on new opportunities, Qatargas will continue building on our past successes as we embrace the future.

**KHALID BIN KHALIFA AL THANI
CHIEF EXECUTIVE OFFICER,
QATARGAS**

“INNOVATION IS PART OF OUR DNA”

Innovative technology is the way forward for Qatargas, says CEO



⋮ Khalid bin Khalifa Al Thani, Chief Executive Officer, Qatargas, presents his keynote speech on the second day of the recent Baker Hughes, a GE Company annual meeting.

Khalid bin Khalifa Al Thani, Chief Executive Officer, Qatargas, emphasised technological innovation as a means to transform all energy companies into lower-carbon emissions enterprises, at the recent Baker Hughes, a GE Company annual meeting.

The Qatargas CEO opened proceedings as keynote speaker on the second day of the Baker Hughes GE Company annual meeting, a two-day conference that gathers industry leaders to share best practices and innovative products and services. Considered one of the industry's most important events, this year's 20th annual meeting was held in Florence, Italy.

Responsible expansion and operation

In a speech titled, 'Smarter ways to bring energy to the world', Khalid bin Khalifa Al Thani predicted widespread culture change, as industry leaders continue to invest in technology that lessens the impact of operations on the environment.

The Company's investment in the landmark Jetty Boil-Off Gas (JBOG) Recovery Facility helps minimise flaring at the LNG loading berths in Ras Laffan Industrial City. This facility commenced operations in October 2014 and recovers more than 90% of the boil-off gas that was previously flared near the jetties.

Built and operated by Qatargas, the JBOG Recovery Facility minimises flaring at the liquefied natural gas (LNG) loading berths in Ras Laffan City. The JBOG Recovery Facility collects the boil-off gas and transports it to a central compressor prior to returning it to the LNG plants where it is used as fuel gas, or converted back into LNG.

Tackling the emission and wastewater challenge

Similarly, investment in the Company's flare minimisation programme has ensured continual improvement in flare reduction. Qatargas' operational excellence initiatives on process optimisation, plant reliability improvement, shutdown management and flare reduction projects have successfully reduced the overall flare intensity by more than 70% from 2011 to 2018. Through a combination of operational excellence and technological advancement, Qatargas has set a strategy to reduce our flaring even further in the coming five years.

Managing wastewater is another massive challenge in the oil and gas industry. "Qatargas' Zero Liquid Discharge project was successfully completed in our refineries and new wastewater recycling plants leveraging the latest technologies in wastewater management are operational in our LNG assets," said the Qatargas CEO, adding that this is "an area that we continue to tackle."

Qatargas' critical success factors

"Qatargas, a reliable global supplier of LNG for more than two decades, is well-positioned to take advantage of opportunities for significant growth in the future," continued the Qatargas CEO.

Global energy demand is on a constant growth curve and, in the current energy mix and current outlook, the share of natural gas is, and remains, significant. The new expansion projects will add 40% capacity to Qatargas' production, increasing it to 110 million tonnes of LNG per annum.

Two critical factors were identified as being key to the success of the Company thus far, and they will be as vital moving forward. The first is the integrated value chain. A key success factor for Qatargas is shaping the LNG industry, the demand and market, through feats of technological advancement to bring forth the full LNG supply chain model, from exploration to distribution.

Investment in technology for capital and operational efficiency was identified as a second factor, and by adopting key technologies, Qatargas has successfully achieved capital efficiency. Larger LNG train footprints and multi-train facilities have aided the Company in optimising capital and operating costs. Several key process technologies are in use at Qatargas' LNG trains. These range from feed gas treatment, refrigeration, natural gas liquids recovery, as well as sulphur recovery.

Stakeholders such as contractors, suppliers and shareholders, play a crucial role in the way Qatargas does business, and it remains a top priority to utilise best-in-class technological advancements through partnerships with them.

"We are always seeking technological advancement that can improve our plant integrity and reliability," said the CEO. "This, over time, has changed how we carry out our inspections and how we execute our shutdowns, as we constantly introduce new technologies to ensure our people are safe and our execution is effective."

"Through a combination of operational excellence and technological advancement, we have set a strategy to reduce our flaring even further in the coming five years."

- Khalid bin Khalifa Al Thani,
CEO, Qatargas.

Advances in shipping

The design and construction of the Q-Flex and Q-Max shipping vessels remain landmark technological advances for the entire industry. Traditionally LNG ship sizes grew incrementally in small steps. However, groundbreaking studies on in-tank sloshing loads enabled individual tank capacity to increase by up to 50%.

This facilitated a substantial increase of the Q-Max's maximum vessel cargo capacity from 145,000 cubic metres to 266,000 cubic metres. Additionally, technological advances utilised slow speed diesel engines, which are more thermally efficient than steam turbines and burn less fuel, producing 30% lower overall emissions compared to the prevailing design of LNG carriers at the time.

"As we move forward we are starting to look into utilising LNG for ships as bunker fuel while considering the upcoming IMO Marpol regulation on the low sulphur content of bunker fuel," stated Khalid bin Khalifa Al Thani, pointing this out as a key area of focus for the LNG industry, as organisations seek more environmentally sound shipping solutions.

A word on industrial cyber-security

With increasing digitisation, industrial cyber security was also highlighted as another key area where technological innovations will continue to assume great significance. In this area the threats increase exponentially as digitisation increases.

The consequences of ignoring these risks, he pointed out, may well be catastrophic in terms of loss of life, assets and reputation, and demand a different approach to defending assets. Qatargas has a state-of-the-art Security Operations Centre, specifically designed for an Industrial Controls System, enabling security of the systems 24/7, as cybercrime increases. However, new technologies are needed to bring about a paradigm shift in the way we look at cyber security and to cope with the emerging threats.

Overcoming challenges through technology

Fittingly, given Qatargas' culture of embracing and investing in innovation, Khalid bin Khalifa Al Thani closed his keynote presentation by underlining the Company's continued commitment to technology.

"Our capital investment plans for the future are substantial in comparison with what we did in the past," he said. "We are always seeking technological advancement to meet the challenges ahead, including sustainability, expansion, cost competitiveness, environmental performance and cyber security.

"We will always strive for premier performance, and we will continue to challenge ourselves to break new ground and bring new advancement as we deliver clean energy to the world."

"The cybersecurity risks that exist now have never been seen earlier and threats increase exponentially as digitisation increases."

- Khalid bin Khalifa Al Thani, CEO, Qatargas.

QATARGAS' TECHNOLOGICAL INNOVATIONS IN NUMBERS



70%

Qatargas' operational excellence initiatives on process optimisation, plant reliability improvement, shutdown management, and flare reduction projects have successfully reduced the Company's overall flare intensity by more than 70% from 2011 to 2018.



50%

The design and construction of the Q-Flex and Q-Max shipping vessels remain landmark technological advances for the entire industry, with groundbreaking studies on in-tank sloshing loads enabling individual tank capacity to increase by up to 50%.



40%

New expansion projects will add 40% capacity to Qatargas' production, increasing it to 110 million tonnes of LNG per annum.



30%

Technological advances also utilised slow speed diesel engines, which are more thermally efficient than steam turbines and burn less fuel, producing 30% lower overall emissions compared to the prevailing design of contemporary LNG carriers.



0

Qatargas' Zero Liquid Discharge project was successfully completed in our refineries, as part of wastewater handling.

TECHNOLOGIES FOR THE FUTURE

Qatargas has outlined six key areas where technological innovation can and must play a central role.



QATARGAS PARTICIPATES IN GASTECH 2018

Qatargas joins fellow industry leaders at prestigious conference in Barcelona.



Image above: His Majesty King Felipe VI of Spain (middle), HE Saad Sherida Al-Kaabi (left) and Khalid bin Khaifa Al Thani (right).



Top Image: The prominent Qatargas pavilion and team at Gastech 2018.

Centre Image: A technical paper titled 'Unique Excursions from the Typical Hydrocarbon Vapour-Liquid separation characteristics' was delivered by Salihin Mohd Ismail, Senior Unit Engineer, and Hamad Salman Al Mohanndi, Surveillance Engineer.

Bottom Image: The Qatargas walkway banner chronicling the journey of the company from inception to its current position as the World's Premier LNG Company.

Qatargas joined more than 30,000 visitors and 700 exhibitors at Gastech 2018 conference, held in Barcelona, Spain.

The delegation of senior executives from Qatar Petroleum and Nakilat was led by His Excellency Saad Sherida Al-Kaabi, Minister of State for Energy Affairs and President and CEO of Qatar Petroleum and Chairman of Qatargas Board of Directors. He delivered a keynote address at the Global Leaders Panel under the theme 'Examining the Transitional Impacts of the New Energy Landscape on the Gas Industry'.

The Qatargas delegation, led by Khalid bin Khalifa Al Thani, Chief Executive Officer of Qatargas, comprised executives from the technical and commercial spectrum.

A technical paper titled 'Unique Excursions from the Typical Hydrocarbon Vapour-Liquid separation characteristics' was delivered by Salihin Mohd Ismail, Senior Unit Engineer, and Hamad Salman Al Mohanndi, Surveillance Engineer.

As a key sponsor of the conference, the Qatargas story was prominently displayed in the main Gastech walkway chronicling the journey of the company from inception to its current position as the World's Premier LNG Company.



GASTECH 2018: KEY TAKE-OUTS

*Sources: Gastech's Post Show Report, Woodmac's Gastech 2018 in Barcelona: Takeaways

- Oil majors are shifting to gas and LNG due to upcoming peak oil demand. Yet the biggest challenge facing the natural gas industry is delivering security of supply, while reducing its carbon footprint and integrating with renewables.
- China will become the world's largest natural gas importer in 2019, most of this as LNG. This surprising increase in demand means that recent predictions of a supply glut did not materialise, and that as the market is expected to tighten beyond 2020, now appears to be an opportune time for FID.

QATARGAS WINS SWORD AND GLOBE OF HONOUR AWARDS FOR THE FIFTH CONSECUTIVE YEAR



From right to left: Khalid bin Khalifa Al Thani, CEO, Qatargas, Abdurrahman Mohamed Al Mulla, Shipping Manager, and Alaa Abu Jbara, Chief Commercial and Shipping Officer, at the Sword and Globe of Honour Awards ceremony in London.

In 2018, Qatargas was one of only ten organisations worldwide to win the 'double' by being awarded both the Sword of Honour and Globe of Honour.

5

The number of times that Qatargas has consecutively won the prestigious Sword and Globe of Honour awards.

Qatargas has won the Sword and Globe of Honour awards for the fifth consecutive year, in recognition of Qatargas' Commercial and Shipping Group's achievements in safety management and environmental management excellence.

The awards, presented by the British Safety Council at a ceremony in London, were accepted by Abdurrahman Al Mulla, Shipping Manager, Qatargas in the presence of Khalid bin Khalifa Al Thani, Chief Executive Officer (CEO), Qatargas, and Alaa Abu Jbara, Chief Commercial and Shipping Officer, Qatargas.

Khalid bin Khalifa Al Thani, CEO, Qatargas, said: "These prestigious awards are testament to the world-class standards we maintain at Qatargas, and most importantly, they recognise our commitment to operating safely, efficiently and reliably."

In 2018, Qatargas is one of only ten organisations worldwide to win the 'double' by being awarded both the Sword of Honour and Globe of Honour. Applications for the awards are limited to companies that have achieved five stars in the British Safety Council's Five Star Occupational Health and Safety Audit, and they are independently judged by a panel of health and safety professionals.

Mike Robinson, Chief Executive of the British Safety Council, confirmed that award winners must achieve the pinnacle of health and safety, or environmental management, but that "it also requires an organisation to demonstrate how they intend to continually improve."

Crucially, outlined Lawrence Waterman, Chairman of the British Safety Council, "For a company to be truly successful [at health and safety], and for its employees to be engaged, committed and happy, it must create conditions where people are able to thrive at work."

Qatargas is honoured to have been recognised as such a company, with the Qatargas CEO, confirming, "On behalf of Qatargas, I would like to acknowledge the British Safety Council for promoting excellence in workplace health, safety and environmental management, and for bestowing this honour on Qatargas."

RLTO SUCCESSFULLY COMPLETED RAS LAFFAN SPM FLOATING AND SUBSEA HOSE REPLACEMENT



For only the second time in a decade, Qatargas' Ras Laffan Terminal Operations (RLTO) team recently completed a Single Point Mooring (SPM) floating and subsea hose replacement safely and successfully.

The SPM's unique technical requirements and remote geographical location present complex operational challenges, even during normal operating circumstances.

The exceedingly complex operation, which took place from July to December 2018, was completed safely and successfully, thanks to the coordination and collaboration of Operations and Maintenance, RLC Port Operations and various contractors.

The SPMs are located approximately 25 nautical miles offshore at average water depths of more than 37 metres. The SPMs are connected to Qatargas' onshore storage facilities via a 42-inch subsea pipeline, which stretches 56 kilometres offshore from Ras Laffan Industrial City.

Ras Laffan SPMs have the capability to load one million barrels of condensate within 24 hours and to moor larger tanker vessels with a capacity of up to two million barrels.

The SPMs' unique technical requirements and remote geographical location, which often is host to challenging weather conditions, present complex operational challenges - including for personal safety and effective work execution - even during normal operating circumstances.

Yet a feat of outstanding operational coordination ensured that the SPM remained hydrocarbon-free and that the SPM hoses were removed and subsequently replaced. Congratulations to the team for showcasing Qatargas' commitment to executing complex operations in a safe and effective manner.



SPM IN NUMBERS



25 nautical miles

The SPM is located approximately 25 nautical miles offshore from Qatar in the Arabian Gulf.



37 metres

The SPM Facility is located offshore in average water depths of 37 metres.



42 inches

It is connected to Qatargas' onshore storage facilities via a 42-inch subsea pipeline.



56 kilometres

This pipeline stretches 56 kilometres offshore from Ras Laffan Industrial City.



1 million barrels

The SPM has the capability to load one million barrels of condensate within 24 hours.

Main image: Qatargas' Ras Laffan Terminal Operations (RLTO) team recently completed floating and subsea hose replacement on Single Point Mooring system (SPM1 and SPM2) safely and successfully in the Arabian Gulf.

Top left: Tanker and DP/II vessel engaged in SPM2 Hydrocarbon freeing.

Top right: Positioning of sub-sea hose during replacement activity.

Bottom left: Removal of hydraulic umbilical from the subsea hose as part subsea hose replacement.

Bottom right: Floating hose replacement in progress.

A feat of outstanding operational coordination ensured that the SPMs remained hydrocarbon-free, and that the SPM hoses were removed and subsequently replaced.

PETROTECH 2019: “LNG A DESTINATION FUEL”

Emerging economies and ‘energy transition’ expected to drive LNG growth

Khalid bin Khalifa Al Thani, Chief Executive Officer (CEO), Qatargas emphasised the importance of liquefied natural gas (LNG) as a destination fuel at the 13th International Oil & Gas Conference and Exhibition - Petrotech 2019, in New Delhi, India.



Top Image: Khalid bin Khalifa Al Thani, CEO, Qatargas joined top executives from several Asian countries on the stage at Petrotech 2019.

Bottom Image: During the conference, the Qatargas delegation, led by the CEO, met with a number of Indian stakeholders.



PETROTECH INDIA IN NUMBERS



4% per annum

Emerging markets and the anticipated shift from coal powered electricity generation plants to natural gas powered electricity plants are expected to increase demand by 4% per annum.



600 million tonnes

Growth is expected to reach 600 million tonnes in 2035 versus 290 million tonnes in 2017.



1,500 Cargoes

Qatargas' 15-year long partnership with India has seen more than 1,500 LNG cargoes delivered to the country since January 2004.

“Natural gas remains the fastest growing fossil fuel globally, benefiting from its flexibility, competitive economics, and low emissions profile.”

- Khalid bin Khalifa Al Thani, CEO, Qatargas.

Qatargas participated in the Petrotech International Conference and Exhibition, held in New Delhi, India in February 2019. The event was organised by the Ministry of Petroleum and Natural Gas of India. The conference was themed under the topic: ‘Shaping the New Energy World through Collaboration and Innovation’.

Speaking at a ‘CEO Conclave’ titled ‘Shaping the New Energy World’, Qatargas CEO Khalid bin Khalifa Al Thani highlighted the role of LNG as the world continues on an ‘energy transition’, saying, “Natural gas remains the fastest growing fossil fuel globally, benefiting from its flexibility, competitive economics, and low emissions profile. Thus, natural gas is called to play a major role in the energy transition, supported by the industrialisation and power demand particularly in emerging countries in Asia and Africa, and the continued ‘coal to gas’ switch, especially in India and China.”

A growing fuel for a growing world

These emerging economies, as well as the projected growth in global population, are expected to significantly increase LNG demand by an average of 4% annually, reaching 600 million tonnes in 2035 versus 290 million tonnes in 2017.

The CEO confirmed that Qatargas is well-placed to meet this demand reiterating Qatar’s commitment to increasing LNG supply by 33 million tonnes per annum (mtpa), taking the country’s production capacity from 77 mtpa to 110 mtpa by the next decade.

A conducive environment

During his address, the Qatargas CEO urged the Indian government to create an environment conducive to the increased use of LNG, especially given the low carbon emission profile of natural gas.

“In countries such as India, where coal remains a major player, natural gas is a substitute that ensures cleaner air, and improves the standard of living,” said the CEO and suggested a “top down” push for the enhancement of India’s gas distribution infrastructure, as well as for reform of the relevant regulation and taxation.

The Company’s long-established partnership with India has seen more than 1,500 LNG cargoes delivered to the country since January 2004. During the conference, the Qatargas delegation, led by the CEO, met with a number of Indian stakeholders, including senior executives of Gas Authority of India Limited (GAIL), Bharat Petroleum Corporation Ltd (BPCL), Petronet and Hindustan Petroleum Corporation Limited (HPCL), among others.

Qatargas was a Crystal Sponsor of the event and participated in the exhibition held alongside the event, which showcased various milestones and messages of the company as well as offering visitors to the stand a view of the Laffan Refinery through a Virtual Reality experience.

Qatargas projects and significant milestones were also showcased at the Petrotech exhibition, which was held alongside the conference.

QATARGAS AT PETROTECH 2019



SHARING KNOWLEDGE AT 15TH QATARGAS ENGINEERING FORUM



Topics discussed at the 15th Qatargas Engineering Forum ranged from projects and innovation, to reliability and operational excellence.

It was a full house at this year's Qatargas Engineering Forum, the 15th such event hosted annually by the Company.

More than 20 subject matter experts, representing Qatar Petroleum, Qatargas, Shell, ExxonMobil, Dolphin Energy and Qatar University, took to the podium to share their best practices and case studies.

In his opening remarks, Khalid bin Khalifa Al Thani, Chief Executive Officer, Qatargas, said, "We are pleased to see that the annual Engineering Forum provides our young engineers with an opportunity to engage with experienced mentors and counterparts, thus assuring continuance of the Qatari LNG industry's legacy - a rich legacy of innovation, reliability, sustainability and safety."

Participants at the event shared technical expertise and discussed the latest developments in one of four topics: projects, innovation, reliability and operational excellence. Of the 52 abstracts submitted, the 21 selected topics included 'Best Practices of Water Injection Systems', 'New Earth Fault Protection Philosophy for 33 kV GIS' and 'Performance-Based Cost Effective Chemical Selection for Fresh Cooling Water Systems'. In addition, 12 poster presentations were also made during the Forum.

The more than 400 attendees were also given ample networking opportunities at the ever-popular Forum, which was held at the Qatar National Convention Centre in December 2018.

400

More than 400 people attended the 15th Qatargas Engineering Forum, held in late 2018.

21

The total number of papers presented at the Forum.

12

The total number of poster presentations.

"The annual Engineering Forum provides our young engineers an opportunity to engage with experienced mentors and counterparts, thus assuring continuance of the Qatari LNG industry's legacy."

– Khalid bin Khalifa Al Thani, CEO, Qatargas.

QATARGAS SUBSURFACE GROUP HIGHLIGHTS EXPERTISE AT HQ SESSION



Qatargas Management Leadership Team with Subsurface Group employees.

Hundreds of attendees joined the Subsurface Group for an informative session on the group's activities at Qatargas Headquarters in early December 2018.

In the 'Qatargas Subsurface Day' session, titled 'What we do and how we do it', the group highlighted the breadth and criticality of their activities through a series of presentations and demonstrations.

Subject matter experts utilised case studies, equipment demonstrations and structural posters to illustrate the group's expertise and core processes to attendees, who included members of the Management Leadership Team and shareholders.

The event was highly successful in outlining the depth of knowledge within the Qatargas Subsurface Group, a crucial factor in ensuring the Company's position as the World's Premier LNG Company.

The event was highly successful in outlining the depth of knowledge within the Qatargas Subsurface Group, a crucial factor in ensuring the Company's position as the World's Premier LNG Company.

NEW SUCCESS-FACTORS SYSTEM SET TO STREAMLINE QG TALENT MANAGEMENT

Learning and Development Department (L&D) is pleased to announce the adoption of the Qatargas Talent Management System (QG TMS), an integrated talent management tool. The aim is to significantly enhance the Company's ability to realise a competitive advantage in the management of its employees' development and performance and to drive the sustainable success of Qatargas.

SIX CORE MODULES

The six core integrated modules Learning and Development Department will deliver in 2019 and 2020 encompass:



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

By streamlining and automating processes, the QG TMS will:

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

The first module, Performance Management and Goal Management (PM-GM), has been live since February. Employee Profile (EP) and Learning Management System (LMS) modules will be launched at different phases during the year.

Career and Development Planning (CDP), Succession Planning (SP) and Workforce Analytics (WFA) will be launched in 2020.

The Learning and Development Department is planning to deliver six core integrated modules during 2019 and 2020.

*Employee Profile (EP)

The EP module will enable employees to capture their personal details and credentials, providing supervisors with a clear summary of their work experiences, their formal qualifications and more. The profile will provide the company with valuable insights.

**Performance and Goal Management (PM-GM)

The PM-GM module will align with the company's approved process and will enable employees and supervisors to monitor progress against objectives and behaviors across the year. This will replace the previous system and full training has been delivered during Q1 of 2019, using a range of approaches including computer based training, classroom sessions and formal briefings.



The Contractors Safety Forum was attended by the Company's senior management and country and/or HSE managers from major contractor companies.

SENIOR HSE&Q MANAGEMENT HOST ANNUAL QATARGAS CONTRACTORS SAFETY FORUM

Delivering best-in-class health, safety and environmental performance is crucial in the oil and gas industry. And, it is a goal that should be equally shared and championed by both Qatargas and its contractors. This was the topic for discussion at the recent Contractors Safety Forum, an annual collaborative event hosted by Qatargas' Health, Safety, Environment & Quality (HSE&Q) Group.

A PLATFORM FOR DISCUSSION

Sessions at the annual Qatargas Contractors Safety Forum focused on several topics, including:



The Contractors Safety Forum was attended by the Company's senior management and country and/or HSE managers from major contractor companies.

Speaking at the forum, Khalid Al Hemaidi, Chief HSEQ Officer, expressed his appreciation for the valuable collaborations and contributions from contractors during 2018, and noted that HSE successes are jointly shared.

The forum is an ideal platform to further enhance relationships with contractors. Open discussions focus on critical HSE issues, mutual expectations, current performance, lessons learned, and opportunities for improvement. Significantly, this level of engagement provides compelling insights that aid in formulating strategies for the year ahead.

In addition to the annual Contractors Safety Forum, Qatargas' HSE&Q leadership intend to host quarterly meetings with HSE contractors, to further discuss performance, lessons learned, and improvement opportunities, all in the drive to deliver an incident and injury free workplace.

Led by the senior management of HSE&Q, the annual Contractors Safety Forum is the ideal platform to further enhance relationships with contractors.

QATARI ENGINEERS SUCCESSFULLY COMPLETE INTENSIVE TECHNICAL TRAINING AT CHIYODA JAPAN

The latest group of Qatari engineers have successfully completed their technical training programme with the Chiyoda Corporation in Yokohama, Japan.



Qatari engineers are selected every year to travel to the renowned Japanese engineering company Chiyoda and receive comprehensive, customised technical training for several weeks.

CHIYODA ENGINEER TRAINING 4 KEY FOCUS AREAS



Greenfield and brownfield project execution.



New Japanese technologies, including Artificial Intelligence for smart plant operation.



Site visits, including a tour of a leading Japanese measurement and control technologies provider.



An introduction to Japanese culture and business etiquette.

With the support and assistance of Chiyoda's local affiliate office-Chiyoda Almana, numerous Qatari engineers are selected every year to travel to the renowned Japanese engineering company and receive comprehensive, customised technical training over a period of five to seven weeks.

The most recent group to have completed the programme focused on the greenfield and brownfield project execution, and gained insights into the latest Japanese technologies, including Artificial Intelligence (AI) solutions for smart plant operation.

Site visits formed an integral part of the programme, including a tour of one of Japan's leading measurement and control technologies providers, where Qatargas' engineers viewed the production line of control valves.

This year, the programme was further extended to provide an introduction to Japanese culture and business etiquette, further enriching the learning experience of the visiting engineers.

Chiyoda's relationship with Qatargas stretches back decades, with the Japanese company having completed engineering and construction work on Qatar's existing liquefied natural gas (LNG) plants since the 1990s.

The Company has long been considered as a key partner in enriching the technical knowledge of young engineers, and taking an active role in the development of and investment in Qatari human resources, a key tenet of the Qatar National Vision 2030.

The programme is the result of a long-standing collaboration between Qatargas and Chiyoda to further develop the skills and capabilities of Qatar's engineers.



Attendees at the 17th Annual Qatargas CEO forum included Khalid bin Khalifa Al Thani, Qatargas CEO, senior management and guest speakers, as well as national graduates, scholarship students and coaches, the top performers among them honoured at a special awards ceremony.

QATARGAS CEO FORUM: A BLUEPRINT FOR NATIONAL SUCCESS

390

Qatargas' (L&D) Department, showcased several new initiatives for 2019 at the event, including the launch of a technical glossary of more than 390 of the industry's most commonly-used terms.

Held recently for the 17th year in row, the annual CEO Forum for National Graduates and National Trainees is a must-attend event for young Qatari employees who seek to make the most of the Qatargas Training and National Development Programme.

Offering a space for discussion about individual development and the Company's Qatarization programme, the theme of this year's CEO Forum was 'Commitment to Premier National Development'.

Hosted by Khalid bin Khalifa Al Thani, Chief Executive Officer (CEO), Qatargas, at the Qatar National Convention Centre, the event gave participants the opportunity to share their positive experiences and to highlight any challenges they face during their development and training at the Company.

In his address, the CEO told attendees, "Qatargas is committed to maintaining its status as the World's Premier LNG Company. As national graduates, you are the cornerstone of this incredible journey. We value our national workforce and provide you with guidance as well as the necessary means and tools to grow in your professional life."

The event, which was facilitated by the Learning and Development (L&D) Department, showcased several new initiatives for 2019. These included merging 232 Development Plans into the Individual Development Plan (IDP) System, as well as the launch of the *Technical Glossary Booklet for Trainees*, a helpful guide to more than 390 of the industry's most commonly-used terms.

Motivational speeches by nationals who have excelled in their careers were another highlight of the forum. Atef Al

Mohsen (Offshore Production Manager), Nasser Hamad Al Marri (Panel Operator) and Abdulla Essa Al Abdulla (Senior Mechanical Technician) inspired the audience with stories of their career trajectories.

The event concluded with an awards ceremony, with the CEO recognising national graduates on development plans, scholarship students who had excelled in their academic studies, and coaches who excelled in training and mentoring their national graduates.

The CEO Forum is a key platform for both the Company's Qatari graduates and trainees, and senior management. By facilitating open discussion in a Q&A session with the CEO, and by sharing information and contributing feedback, it encourages young nationals to remain actively involved in their personal development, and provides Qatargas with the opportunity for informed decision-making within the framework of its highly successful Qatarization programme.

"Qatargas is committed to maintaining its status as the World's Premier LNG Company. As national graduates, you are the cornerstone of this incredible journey." - Qatargas CEO Khalid bin Khalifa Al Thani in his opening address at the CEO Forum.



... The well-attended event provided senior management and employees the opportunity to report on and analyse accomplishments.

QATARGAS TOWN HALL: A YEAR IN REVIEW

Qatargas' first post-integration Town Hall was held in December at the Qatar National Convention Centre. A review of Qatargas' performance in 2018 and an outline of the Company's strategic goals for next five years was shared with the audience.

The well-attended event provided senior management and employees the opportunity to report on and analyse accomplishments, identify areas for improvement, and understand the priorities set for future growth.

2018 was another year of great delivery for the organisation. Qatargas' 2018 achievements across a number of areas were highlighted, including the successful completion and implementation of the newly-integrated Qatargas' Management System, as well as impressive safety, health and environmental (SHE) performance, the Company's high calibre workforce, financial performance, customer satisfaction, and efficient and reliable operations.

Significant achievements

Given the Company's consistent commitment to and investment in SHE, 2018 showcased significant and industry-leading performance in these areas, recognised with a prestigious Qatar Sustainability Award for the Jetty Boil Off Gas Recovery Facility.

Environmental accomplishments continued with flaring ahead of targets, and the successful and safe completion of the Zero Liquid Discharge Project in Laffan Refinery 2. Safety also remained a priority, and the SHE team achieved its best process safety performance, with zero high potential incidents in 2018.

The Operations team, too, enjoyed a year of strong performance. The Company's liquefied natural gas (LNG) production was on target, with 97.5% reliability. This has been further improved upon, with a highly impressive Laffan Refinery reliability of 99.7% ahead of target.

New customers, new markets

In an ever-competitive LNG industry, with new competitors, new technology and evolving pricing challenges, Qatargas proceeded to reinforce its premier status with new contracts and new customers in 2018.

The Company signed a long-term (22-year) Sale and Purchase Agreement with PetroChina, and achieved new sales to Petrobangla of Bangladesh and Pavilion Gas of Singapore.

Qatargas also maintained outstanding quality control with no off-spec or late deliveries.

The Town Hall concluded with a question-and-answer session, an open forum for employees to ask questions or provide feedback to the Management Leadership Team. Overall, the first post-integration Town Hall was overwhelmingly positive, and successfully laid the foundation for a productive 2019.



CORPORATE PLANNING'S 5-YEAR OUTLINE

Corporate Planning outlined the Company's strategic goals for the next five years, including:

- Striving for an Incident and Injury Free workplace, and protecting our Assets and our Environment.
- Achieving Qatarization targets through a skill based Qatarization Strategy, and attracting and retaining qualified people to maintain optimum skills and experience levels, while building employee capability.
- Improving uptime (availability, reliability and utilisation) to achieve full plant capacity and/or meet supply rights, while enhancing and promoting reliability culture across the organisation.
- Expanding and sustaining LNG production and ensuring readiness to operate, while focusing on quality in everything we do and completing Qatargas Management System (QGMS) integration to maintain premier performance.
- Maximising customer satisfaction while retaining contractual and financial performance - and gain competitive advantage through flexibility.
- Generating value and optimising cost through innovation and responsible spending, achieving post-integration synergies, and maximising revenue by penetrating new markets.

LOYAL EMPLOYEES CELEBRATED AT QATARGAS LONG SERVICE AWARDS



Qatargas has been highly effective at attracting, developing, motivating and retaining a diverse workforce of high-calibre professionals.

As many as 1,200 Company employees were acknowledged for their loyalty and hard work during the annual Qatargas Long Service Awards Ceremony.

Thanking them for their commitment, Khalid bin Khalifa Al Thani, Chief Executive Officer, Qatargas, told the awardees, "This award is a reflection of your hard work, dedication, professionalism and contribution to the success of the company over many years, all of which has been instrumental in making Qatargas what it is today - the World's Premier LNG Company."

Qatargas has been highly effective at attracting, developing, motivating and retaining a diverse workforce of high-calibre professionals. The Company's well-structured programme to train, recognise and reward the accomplishments of its employees has given it a distinct advantage in terms of people skills, which is a major source of strength in a highly competitive industry.

In particular, the development of National employees in Qatargas, through the Qatarization development plan, has been instrumental in preparing and mentoring National employees to successfully assume key roles within the Company.

Congratulations to all our Long Service employees.

FOUR BENEFITS OF LONG-SERVING EMPLOYEES



Long-serving employees have in-depth knowledge of the Company, our products and services, and through lessons learned in the workplace, retain valuable experience, leading to higher productivity.



Long-serving employees share their knowledge and expertise with new employees.



Their years of long service indicates to prospective employees that the Company is an employer of choice, providing a rewarding and stable work environment.



Long-serving employees have expanded their expertise by working on a range of projects of varying complexity, steadily improving their performance and that of the Company.

Qatargas' well-structured programme to train, recognise and reward the accomplishments of its employees has given it a distinct advantage in a highly competitive industry.

JBOG RECOVERY FACILITY WINS QATAR SUSTAINABILITY AWARD



Hilal Saad Al Mohannadi, Head of Environment Operations at Qatargas, (right) receives the award from Eng. Meshal Al Shamari, Director of Qatar Green Building Council.



Qatargas' Jetty Boil-Off Gas (JBOG) Recovery Facility has won the prestigious Qatar Sustainability Award, presented to the Company at a gala dinner held during Qatar Sustainability Week 2018 by the Qatar Green Building Council.

The JBOG Recovery Facility, built and operated by Qatargas, has distinguished itself as the biggest facility of its kind and one of the largest environmental investments in the world. It is a testament to the State of Qatar's commitment to reduce climate-changing carbon emissions.

The facility, which began operations in October 2014, minimises flaring at the liquefied natural gas (LNG) loading berths in Ras Laffan City, and recovers more than 90% of the boil-off gas that was previously flared at the jetties.

The JBOG collects the boil-off gas and transports it to a central compressor before returning it to the LNG plants, where it is either utilised as fuel gas or converted back into LNG.

The QGBC Sustainability Awards recognises the commitment and efforts of individuals, institutions and organisations in furthering sustainable development and environmental protection in Qatar and beyond.

JBOG IN NUMBERS



2014
JBOG began operations in October 2014



750_{MW}
JBOG can generate 750 megawatts of electricity



300,000
The number of houses that can be powered by JBOG



90%
The percentage of JBOG's boil-off gas recovery



1.6 MILLION TONNES
The amount of CO₂ emissions reduced by JBOG per year



175,000
Total CO₂ emissions reduced is equal to those of 175,000 cars

“Qatargas is honoured to accept this accolade in recognition of the landmark JBOG recovery facility, which supports the sustainability and environmental goals of the Qatar National Vision 2030, and balances industrial development with care for the environment.” - Mohamed Brahmi, Common LNG Storage and Loading Asset Manager.

RESOLVE FOR RESILIENCE: QATARGAS CELEBRATES QATAR NATIONAL DAY

75m

The height of the giant celebratory billboard (pictured) that was displayed at the Qatargas Doha headquarters for Qatar National Day.



“As long as it was proven by our deeds.”
- Sheikh Jassim bin Mohammed Al Thani,
founder of the State of Qatar.

The above quote formed the basis of the slogan of Qatar National Day 2018, which was celebrated by the country on 18 December 2018. Qatargas marked the special day at multiple locations in Qatar, and at the Company’s liaison offices in South Korea, Japan, Thailand and China.

A giant billboard, measuring 75 metres by 24 metres, was displayed at the Company’s Doha headquarters, and featured the national flag and one of Doha’s most prominent landmarks, the arches of Interchange 5/6.

The billboard also included the National Day slogan, “Qatar Will Remain Free” and a quotation from the country’s founder, Sheikh Jassim bin Mohammed Al Thani: “As long as it was proven by our deeds.”

Qatargas marked Qatar National Day at multiple locations in Qatar, and at the Company’s liaison offices in South Korea, Japan, Thailand and China.

INSPIRING HEALTH AND WELLNESS AT QATARGAS SPORT DAY

5km

The length of the family walkathon held at Al Khor Community on the occasion of Qatargas Sport Day 2019.

Qatargas employees and their families work up a sweat on Qatar National Sport Day



Qatargas Sport Day is always a highly-anticipated, well-attended event on the Company's calendar. This year was no exception, with employees and their families gathering at Aspire Zone and Al Khor Community sporting facilities to mark Qatar National Sport Day.

A fitness feast in Doha

As with previous years, a wide variety of sporting events and activities were on offer, giving attendees of all ages and fitness levels the chance to participate. In Doha, these included the ever-popular inflatable football zones, a football goal target game, volleyball and basketball hoops, stationary exercise bikes, table tennis, foosball and suspended boxing bags.

Group exercises offered families the opportunity to work out together, while a special children's activity area, complete with obstacle course, made sure that younger guests had plenty to keep them occupied.

Additionally, a Medical Booth, manned by the Qatargas Medical Team, provided health assessments and fun educational tools.

Plenty to enjoy in Al Khor

Plenty of fun and challenging sporting activities ensured that the Al Khor Community made the most of the day as well.

A 5-kilometre family walkathon was a hit with participants, as were games of football, volleyball, badminton, tennis, table tennis, cricket, a bike race, and a swimming challenge.

The Al Khor celebrations also included athletics activities and an introduction to scuba diving, making the event truly representative of the many sporting options available to people who seek and enjoy an active lifestyle.

Building a healthier Qatar

Encouraging a healthy lifestyle is what Qatar National Sport Day is all about. Building a healthy and productive society is a key objective of the Human Development Pillar of Qatar National Vision 2030.

In support of this goal, Qatargas' annual Sport Day event is an example of the Company's ongoing commitment to promoting health and wellbeing among its employees and their families.

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