

# Celebrating 10,000 LNG cargoes A major milestone for Qatar energy

QATARGAS CEO FORUM NURTURING QATARI TALENT



### SUPPORTING NEW DISCOVERIES IN RESEARCH

### IT'S WHAT MAKES A WORLD LEADER

CATARGAS

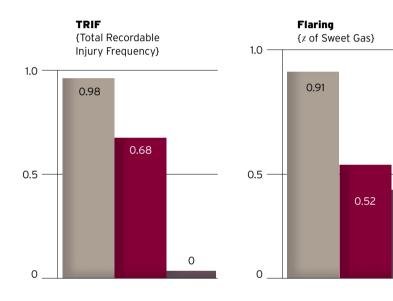
We have a long history of supporting the research initiatives of local universities and institutes. It's just one of the things that make us the World's Premier LNG Company.





# QATARGAS CORPORATE SCORECARD

### SAFETY, HEALTH AND ENVIRONMENTAL PERFORMANCE



Qatargas outperforming industry

0.41

Greenhouse Gas Emissions Intensity (Tonne GHG/Tonne LNG) 0.440 0.440 0.441 0.435 0.430 0.433 0.433

Industry Average Actual Target

EFFICIENT AND RELIABLE OPERATIONS				
	Industry Average	Actual	Target	
LNG Reliability	96.5%	96.6%	97.5%	
LR Reliability	95%	98.6%	98.5%	
Expenditure vs Target	N/A	86%	N/A	

CUSTOMER SATISFACTION				
	Actual	Target		
Reliable Deliveries	100%	100%		
Positive Responses to Customer Change Requests	96%	85%		

### QATARIZATION

A High Calibre and Diverse Workforce {Total Headcount}



FINANCIAL PERFORMANCE				
	Actual	Target		
Sales Volume (Million Tonnes)	29.2	29.2		

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### PIONEER THE MAGAZINE OF QATARGAS OPERATING COMPANY LIMITED

**Editorial Team** 

### Editor in Chief: **Daniel Yates** Editorial Director Thajudeen V. Aliar Arabic Editor Fiman Fakhroo

Published by The Public Relations Department Qatargas Operating Company Limited

### **Qatargas Operating Company**

P.O. Box 22666 Doha, Qatar Tel: +974 4452 3224 Fax: +974 4473 6628

### **Firefly Communications**

P.O. Box 11596 Doha. Qatar Tel: +974 4434 0360 Fax: +974 4434 0359

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# FLAWLESS IMPLEMENTATION

### **ABSOLUTE DEDICATION TO EXCELLENCE CREATES DESIRED RESULTS**



At Qatargas, our commitment to operational excellence underpins everything that we do. Whether that be our focus on safety, our dedication to

serving customers with consummate professionalism, or developing our people and fostering a culture of learning, Qatargas relentlessly strives for flawless execution.

Indeed, this is the 'Qatargas way'. Our dedication to excellence has led to many noteworthy accomplishments, exemplified by the recent safe transportation of the 10,000<sup>th</sup> cargo of Qatari LNG loaded from Ras Laffan Port in May.

The 10,000<sup>th</sup> cargo is a shining example of how Qatargas works in unity with our domestic partners - Qatar Petroleum, RasGas and Nakilat - toward achieving the goals of the State of Qatar, under the wise leadership of His Highness the Emir Sheikh Tamim bin Hamad Al-Thani. This milestone also illustrates the phenomenal growth of the State of Qatar's LNG industry.

Furthermore, Qatargas' commitment to serving our customers is evidenced

In fact, it was in 1992 that the first Sale and Purchase Agreement was signed by Qatargas and Japan. an agreement which enabled the development of Qatargas 1. Only four years later, the first LNG shipment was sent to Japan, marking the start of a relationship that has remained firm ever since. This deal gave momentum to the State of Qatar's ambition to become the number one LNG exporting nation in the world. On another front, our recent agreement with Kuwait Petroleum Corporation (KPC) reiterates our intent to not only service existing clients, but to gain new customers. I truly believe that this agreement signifies a positive future for similar trade relationships between Qatar and the Gulf region. and indeed within the greater Middle East. Qatargas has clearly developed a strong reputation for being a reliable provider of clean energy, and the deal with Kuwait consolidates the Company's position as the LNG partner of choice. Of course, our focus on operational excellence extends to every part of our business, as outlined in the Qatargas

by the recent inaugural delivery of a spot LNG cargo to JERA in Japan. This agreement extends more than two decades of relations between Qatargas and Japanese customers.

Direction Statement. For example, we recently completed the region's first Waste Water Treatment plant that uses Membrane Bio-Reactor technology, manifesting Qatargas' commitment to environmental conservation.

Ultimately, our recent achievements are testament to the hard work and dedication of Qatargas' staff, contractors and partners. Together, we are responsible for the Company's ongoing success. And I am convinced that our commitment to operational excellence will maintain our status as the World's Premier LNG Company.

I would therefore like to take this opportunity to offer my deepest gratitude to all of you who have worked so tirelessly to reach the important milestone of 10,000 cargoes. And thank vou for your ongoing contribution to Qatargas, and the State of Qatar's energy sector as a whole.

KHALID BIN KHALIFA AL-THANI CEO, QATARGAS

# **KEY MILESTONE** FOR QATAR'S **LNG SECTOR**

### **CELEBRATING THE 10.000<sup>TH</sup> VESSEL LOADING**

Marking a significant landmark for Qatar's liquefied natural gas (LNG) sector, Qatar Petroleum, Qatargas and RasGas successfully loaded the 10,000<sup>th</sup> cargo from Ras Laffan Port in May.

The 10,000<sup>th</sup> cargo was loaded on board the Qatargas-chartered Q-Max vessel 'Mozah', bound for South Hook LNG Terminal in the UK. Chartered by Qatargas from Nakilat, (Qatar's shipping company with the largest fleet of LNG carriers in the world), the 'Mozah' is one of 13 Q-Max vessels with a capacity of 260,000 cubic metres of LNG - the largest in the world. 'Mozah' was named by HH Sheikha Moza Bint Nasser Al Misned in July 2008 and the vessel was delivered to Qatargas that September.

Commenting on the occasion, Saad Sherida Al-Kaabi, QP President and CEO, said, "The achievement of 10,000 LNG cargoes from Ras Laffan Port is a testament to all the hard

work and dedication by Qatar Petroleum, Qatargas and RasGas, under the wise leadership of His Highness Sheikh Tamim bin Hamad Al Thani, the Emir of the State of Qatar."

"Qatargas is the World's Premier LNG Company. and we are proud to work alongside world-class companies at Ras Laffan Industrial City (RLIC)," said Khalid Bin Khalifa Al-Thani, CEO, Qatargas. "This historic event - the safe and reliable transportation of the 10.000<sup>th</sup> LNG cargo from Qatar - is a tribute to the combined expertise of our partners, staff and contractors. This remarkable feat underscores our commitment to operational excellence, and I congratulate everyone who has made a valued

contribution to delivering safe and reliable LNG to our customers."

Covering an area of more than 295 square kilometers (km<sup>2</sup>), RLIC provides the common facilities of land, infrastructure, port and cooling water to Qatar's LNG companies. It also offers utilities, desalinated water, waste management, environment management, fire fighting and emergency response as well as support services such as healthcare, accommodation and telecommunications. Known as one of the largest exporting ports in the

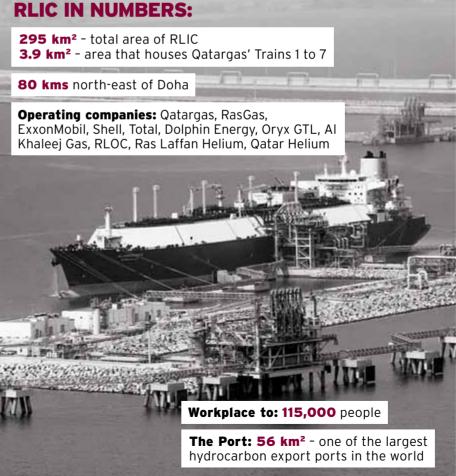
Middle East and Asia, since its inception in 1996, its port and berth facilities have expanded significantly. The port, covering an area of 56 square kilometres, is one of the

largest hydrocarbon export ports in the world, with six operational LNG berths acting as the gateway for Qatar's LNG to the rest of the world. Its geographical advantage

between Asia and Europe on the international maritime shipping route has enabled Qatar to stay ahead of other LNG suppliers around the world.

Ras Laffan Port provides an essential strategic link in the chain connecting gas production derived from the North Field with the end users of gas, liquid and associated products across the world. It has been an integral component to Qatar successfully achieving its target in December 2010 of a total LNG production capacity of 77 million tonnes per annum (mtpa).

### **RLIC IN NUMBERS:**



Qatar Petroleum, Qatargas, RasGas and Nakilat officials join the Captain of the vessel, 'Mozah' to commemorate the historic 10,000<sup>th</sup> cargo loading.



### **A HISTORY OF RAS LAFFAN INDUSTRIAL CITY**

### Mid-1990s

Qatar makes a multi-million dollar investment to develop port facilities and infrastructure at RLIC.

### **1996** December

The first LNG cargo loaded.

### 2003 April

500<sup>th</sup> LNG cargo loaded.

### **2008** January

1,000<sup>th</sup> LNG cargo loaded.

### 2010 December

Qatar reaches its goal of total LNG production capacity of 77 mtpa with Qatargas simultaneously reaching 42 mtpa.

### 2011 June

5,000<sup>th</sup> LNG cargo loaded.

### 2016 May 10,000<sup>th</sup> LNG cargo loaded.

QUARTER TWO 2016 THE PIONEER 5



# PREMIER LEADER EVENT **REWARDS LEADERSHIP**

Qatargas' Corporate Planning Department recently conducted the Quarter 1 Premier Leader Event (PLE). The event was attended by high-level Qatargas leaders and included discussions around related key topics. Three of the Company's best leaders were rewarded for their outstanding performance at a special awards ceremony.

The event, held in April at Al Khor Community, was attended by nearly 60 Qatargas leaders, who discussed headline tracks such as guarterly performance, progress on 2016 Corporate Initiatives and retention of talent, within the framework of the Company's ongoing focus on safetv.

During the discussions, safety as the Company's number one priority was reinforced by Khalid Bin Khalifa Al-Thani, Qatargas CEO. He re-emphasised the importance of safety and highlighted vehicle accidents, a major issue in Qatar. There was also a focus on reducing injuries during the summer - as historically it is the high injury season - with emphasis on the ongoing heat stress management programme, as well as the 'Right tool for the job' campaign.

### Cost and production The finance presentation

covered the Q1 2016 prices (and the trend for the year) for condensate and liquefied natural gas (LNG) and their impact on revenue, reiterating focus throughout Qatargas on cost optimisation. The outstanding performance of LR1 and the unplanned shutdowns of Train 1 and Train 4, with no delays in deliveries for customers, were also mentioned. Operations updated on production status for all the LNG trains, causes and impact of reliability losses. Strong focus was placed on maintaining performance and on preventing production disrupting events from reoccurring, with reliability being the key to customer satisfaction.

The PLF discussions covered the headline tonics of quarterly performance, progress on 2016 Corporate Initiatives and retention of talent. There was also a focus on maintaining performance and preventing production disrupting events



by the CEO for their outstanding performance were Abdurrahman (Refinery Ventures Group).

of Al-Mulla exemplified the emphasis on standards on safety ethics and compliance," said Abujbara, "and perfect example of this."

Venkatapathy was rewarded for his initiative and attention to detail, which has had a tangible effect on the bottom line. Sheikh Khalid Bin Abdulla Al-Thani, COO-Engineering and Ventures, said: "Venkatapathy, a member of the experienced and professional QA/ QC team, has been instrumental in detecting several violations from suppliers/vendors that have tried to supply and install off-spec material and equipment on Qatargas facilities. The use of such spurious material/equipment could result in catastrophic failures and compromise the plant safety and integrity."

In addition to his focus on safety, Venkatapathy explained that external audits on contractors/vendors and specific awareness programmes



Abdurrahman Mohamed Al-Mulla (1st from Left), Eric Guillotin (3rd from Left) and Kulasekaran Venkatapathy (6th from Left) join Qatargas' CEO and senior management at the PLE.

The three Qatargas leaders recognized , Mohamed Al-Mulla, Shipping Manager (C&S Group); Kulasekaran Venkatapathy, Senior Quality Assurance/Quality Control (QA/QC) Engineer in the Integrity Division (E&V Group); and Eric Guillotin, Laffan Refinery 2 Project Manager The respective Chief Operating Officers highlighted the outstanding performance of the three award winners. Alaa Abuibara (COO-Commercial and Shipping) outlined how the performance

strong functionality in every department and resourcefulness required from leaders at Qatargas, "Abdurrahman has created a culture of uncompromising repeatedly reinforces these values with his team; and the British Safety Council Sword and Globe of Honour awards are a conducted in the fields of welding, NDT and lifting equipment were also key factors in successfully achieving Qatargas' goals. "Doing the work right the first time, and every time without any rework/rejection is a key contributing factor in terms of financial performance which we practice professionally throughout our activities," he said. "We have always extended our support to operational requirements during turn around shutdowns, as well as emergency repair works, with our team in full support."

Of the next award recipient - Eric Guillotin, LR2 Project Manager - Salman Ashkanani (COO-Refinery Ventures) said: "Eric plays a significant role for safety performance improvement with QG SHE and OTS support, LR2 project Total Recordable Injury Rate (TRIR) was 0.64 in 2015, and the 2016 year-to-date TRIR is 0.38. LR2 overall progress has been improved in order to meet the planned start-up date for LR2, engineering and procurement are almost complete, all equipment is installed and the budget is well under control."

Eric, a secondee from Total, emphasised how safety always comes first. "Nothing is more important. We always try to do our best. It is the first goal for the project team and is the activity I dedicate the largest part of my time to. Schedule is the second challenge of any project. Quality control, cost control and strict management of contract are key activities for success of such a project."

The support he receives from Qatargas management enables Eric to perform at the level required. "I work with a great team and benefit from full support from my hierarchy. Above all, the Qatargas organisation, its clear goals and its company culture are a strong foundation for success."

# **JAPAN'S TRUSTED AND RELIABLE LNG SUPPLIER**

Building on our strong commitment to Japanese partners, Qatargas has successfully delivered its first spot cargo to JERA, reinforcing our position as the World's Premier LNG Company.

The signing of the first Sale and Purchase Agreement (SPA) with Japan in 1992 was Qatargas' first major milestone, leading to the development of Qatargas 1, with three liquefied natural gas (LNG) trains, each with an initial production capacity of two million tonnes per annum (mtpa). The first shipment under this agreement was delivered in 1997 marking one of the early steps in building the robust partnership between Qatar and Japan.

Nearly two decades later, Qatargas continues to strengthen relationships with Japan, having recently delivered its first spot LNG

cargo to Japan's newly established JERA Co. Inc. under the newly executed Master SPA between the two companies.

JERA is a recently formed joint venture between two of Japan's largest power utilities - Qatargas' first ever customer, Chubu Electric Power Company Inc. and TEPCO Fuel & Power Inc.

The spot cargo was delivered onboard the Q-Flex LNG vessel 'Al Ruwais' to the Futtsu LNG Terminal in Tokvo Bay in May of this year.

Japan continues to be the world's largest importer of LNG. In 2015 alone, Qatargas delivered a total of 14.6 million tonnes of LNG

to Japan and to date has delivered more than 2300 cargoes of Qatari LNG to Japan.

The new agreement reinforces the highest levels of commitment Qatargas has towards providing a trusted and reliable energy supply to Japan. The deal also reinforces Qatargas as Japan's LNG supplier of choice. Significantly, this deal highlights Qatargas' unrelenting dedication to being the World's Premier LNG Company, reliably and safely delivering LNG to customers all over the world.



Qatargas delivered 14.6 million tonnes of LNG to Japan during 2015.



The spot cargo was delivered on board the Q-Flex LNG vessel 'AI Ruwais' to the Futtsu LNG Terminal in Tokyo Bay in May of this year

# **4-YEAR DEAL WITH KUWAIT PETROLEUM**

Qatargas has recently signed a four-year agreement with Kuwait Petroleum Corporation (KPC) to supply half a million tonnes of LNG per year to Kuwait over the next four years. This further enhances Qatar's reach in the Gulf Cooperation Council (GCC) and the Middle East markets.



The Floating Storage & Regasification Unit (FSRU), 'Golar Igloo', chartered by Kuwait Petroleum Corporation and moored in Mina Al-Ahmadi port, Kuwait. The first cargo as part of the new agreement was delivered by Qatargas onboard Q-Flex vessel, 'Al Gharrafa', in March 2016.

Qatargas 2, the world's first fully integrated value chain LNG venture, will supply the LNG to KPC. Qatargas 2 is a joint venture between Qatar Petroleum, ExxonMobil and Total which started production in 2009. The LNG will be delivered to KPC's Mina Al-Ahmadi LNG reveiving terminal in Kuwait, on board Q-Flex vessels chartered by Qatargas.

According to Saad Sherida Al-Kaabi, Qatargas Chairman of the Board, "The agreement consolidates the position of Qatargas as the LNG partner in the GCC

region and the Middle East, and enhances its established global position. The conclusion of this

agreement cements the positive and mutually beneficial trade relations between the Qatari Kuwaiti energy sectors, and enhances the position of the State of Qatar as a safe and reliable supplier of clean energy to all corners of the world." Al-Kaabi added.

"The signing of this agreement with KWC is another significant step in demonstrating Qatargas' capability to reliably and

"The conclusion of this agreement cements the positive and mutually beneficial trade relations between the Qatari and Kuwaiti energy sectors, and enhances the position of the State of Qatar as a safe and reliable supplier of clean energy to all corners of the world." -Saad Sherida Al-Kaabi, Qatargas Chairman of the Board.

"The signing of this agreement with KWC is another significant step in demonstrating Qatargas' capability to reliably and efficiently lead the supply of LNG to the Middle Eastern emerging energy markets." - Khalid Bin Khalifa Al-Thani, Chief Executive Officer, Qatargas.

efficiently lead the supply of LNG to the Middle Eastern emerging energy markets." said Khalid Bin Khalifa Al-Thani, Chief Executive Officer, Qatargas. "This deal demonstrates the eagerness to stengthen and expand our relationship, and Qatargas' readiness to meet KPC's future demand for LNG."

To respond to Kuwait's increased energy needs during the summer months, the majority of the volume over the four years will be delivered between March and November each year. Qatargas has been providing the majority of Kuwait's energy requirements since 2011 through both direct sales with KPC and through third parties who have collaborated with both Qatargas and KPC.

Qatargas has already supplied LNG to Dubai, United Arab Emirates, since 2008, and successfully delivered a commissioning cargo to Jordan in May 2015. The new deal with KPC further reinforces the Company's commitment to safely and reliably supply clean energy around the world.

# **MBR TECHNOLOGY** ENHANCES WASTE WATER TREATMENT

Qatargas continually strives to adopt best industry practices and to lead the way in the use of innovative technologies in the liquefied natural gas (LNG) sector. In line with the Qatar National Vision 2030 (QNV 2030) objective of sustainable water use, and as part of the Company's ongoing Waste Water Management Strategy, Qatargas 1 has recently completed the region's first Waste Water Treatment plant, incorporating Membrane Bio-Reactor (MBR) technology.

"This project is a clear manifestation of our commitment to environmental conservation and is part of the huge investments we have made in the recent past to minimise our environmental footprint in line with the values spelled out in the **Qatargas Direction** Statement." - Sheikh

Khalid Bin Abdullah Al-Thani, Qatargas Chief Operating Officer - Engineering and Ventures.



The new plant uses Membrane Bio-Reactor (MBR) technology.



The completed Waste Water Treatment plant at Qatargas 1.

Qatargas successfully completed the region's first Waste Water Treatment plant in April, which uses state-of-theart MBR technology. The plant has the capacity to treat nearly 1300 cubic meters of waste water per day.

The new facility forms part of the Company's Waste Water Management Strategy, which is centred on three nillars.

- · Re-use suitable streams for irrigation; Recycle suitable streams to produce
- desalinated water with advanced waste water treatment technologies planned for future: and
- Reduce disposal of waste water to deep well injection through increased water recycling and reuse.
- The new Waste Water Treatment plant is in line with the State of Qatar's Ministry

of Municipality and Environment (MoME)

regulations and also helps meet the sustainable water use objective of the QNV 2030.

The Waste Water Plant treats the used water until it reaches irrigation grade water and can be re-used. The MBR uses a combination of bacterial bio-reactor to consume and breakdown the pollutants. The downstream of this bio-reactor's man-made membranes is then used to screen out larger particles, bacterial biomass and other compounds.

The MBR now obtains removal rates of more than 95 percent for key parameters such as Chemical Oxygen Demand (COD) and Nitrogen compounds. This means that the treated water is significantly better than that processed via other conventional treating methods, an indication of the project's success.

Commenting on this region-first development. Sheikh Khalid Bin Abdullah Al-Thani, Qatargas Chief Operating Officer - Engineering and Ventures, said, "This is a very important accomplishment for Qatargas as we have set a precedent in the LNG industry in the region to reuse waste water at the Qatargas 1 plant. This project is a clear manifestation of our commitment to environmental conservation and is part of the huge investments we have made in the recent past to minimise our environmental footprint, in line with the values spelled out in the Qatargas Direction Statement. I congratulate all those who worked on the planning, design and construction phases of this project and those who contributed to its successful operation."

Led by Ventures Department with the support of the Environment Affairs. Engineering, Operations and several other stakeholders, outstanding work has been undertaken in developing a strong design, procuring high quality equipment and executing the construction works of the project safely without any lost time incident (LTI). The pilot MBR plant was first tested for six months in 2008 following which the Qatargas team embarked on the Front End Engineering Design (FEED) and the Execution Phase Contracts (EPC) and the start-up between 2011 and 2015.

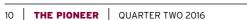
# **THE QATARGAS** SLUDGE MANAGEMENT JOURNEY

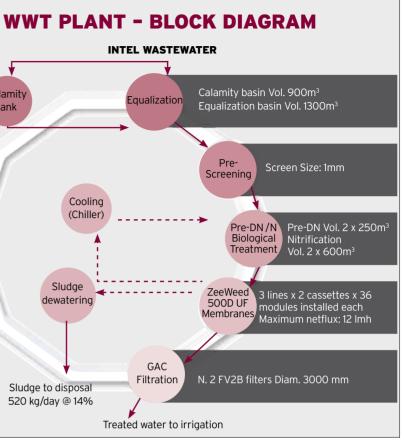
Minimising our environmental footprint is a key requirement of the Qatargas Direction Statement. With the successful implementation of our Sludge Management Project, Qatargas has significantly reduced its overall waste inventory onsite while minimising associated waste storage, transportation and disposal risks. This noteworthy achievement is testament to Qatargas' ongoing commitment to improving our environmental performance.

Due to a lack of established, in-country disposal pathways, hydrocarbon sludge and slurry waste streams have accumulated steadily in recent years reaching more than 3500 cubic metres (m<sup>3</sup>) in 2015. Future predictions (2016-2018) indicate an additional 4000 m<sup>3</sup> of sludge will be produced from upcoming facility shutdowns and tank cleaning activities. A joint Waste Management Team (WMT) from Maintenance Services and Environmental Affairs led a multidisciplinary project to implement a sustainable disposal process for these waste streams in 2015. Starting with the development of a technically challenging scope of work and followed by a comprehensive technical evaluation and tendering process, Ecolog International was awarded a long term contract to mobilise and commission a state-of-theart centrifuge system at the Qatargas facilities in Ras Laffan Industrial City (RLIC).

Calamity

tank





Recognising the extensive safety, permitting and operational requirements for commissioning such a project onsite, the WMT established an effective partnership with the contractor to facilitate the mobilisation process, while reaching out for support from other Qatargas teams. An Engineering Review of the centrifuge process was conducted by Surveillance Engineering, followed by third-party certification of the separation system and safety-critical equipment by

Qatargas Quality Control. An occupational exposure monitoring program was also implemented by the Qatargas Medical Team which helped identify potential occupational hazards as well as appropriate design controls and personnel protection measures. This inter-disciplinary teamwork allowed for safe, vet rapid mobilisation of the centrifuge system to site and is another example of successful

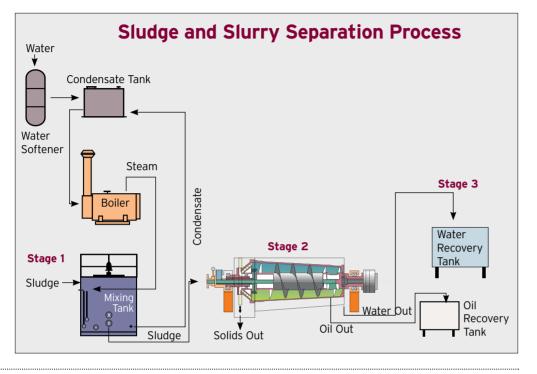
collaboration within Qatargas. The centrifuge system has processed over 90% of the 2015 sludge inventory existing onsite as of the end of July 2016, while maintaining an outstanding safety record. To date, only 3% of the residual waste generated from sludge separation is solid residue that requires final disposal at the Mesaieed Industrial City (MIC) Hazardous Waste Treatment Center. This allows for considerable savings in waste transportation and disposal costs along with minimisation of associated environmental and health and safety risks.

### The process

The sludge separation process comprises the following key stages:

- Stage 1: Sludge is mixed and pre-heated:
- Stage 2: Sludge is separated by centrifuge breaking it down into three main components: waste oil, water and solid sand; • Stage 3: Separated waste

streams are managed and disposed of via established in-country disposal pathways in line with the Qatargas Waste Management Procedure.



### **LNG 18 CONFERENCE** AND EXHIBITION



70% Qatargas has successfully reduced flaring at its LNG facilities by 70% since 2011.

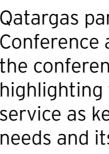
LNG 18 in Perth is part of the LNG X series, which has been running every three years since 1968. It is a significant global LNG industry event which aims to provide a technical and commercial platform for the LNG industry.

Qatargas Marketing Director Abdulla Ahmad Al-Hussaini, presented a paper at the conference entitled, 'What is the right mix of incentives to meet future LNG demand'. Through his presentation, he highlighted Qatargas' focus on customer service as key to the Company's response to evolving customers' needs.

Commenting on the recent shifts in supply and demand trends, Al-Hussaini described some of Qatargas' activities in response to the evolving landscape, stating, "Qatargas has responded to this evolution of buyers' needs with an even greater focus on 'customer service'. In 2015, at the request of our buyers, we delivered part cargoes into multiple locations on five separate occasions. We also made supplemental spot cargoes available to a long-term customer who

Rishi Maharaj, Senior Commercial Analyst, (left)

presenting a poster on 'Mitigating the challenges towards being an effective LNG importer'.



experienced an unexpected national natural gas pipeline outage." Al-Hussaini's paper focused on: The latest developments and trends affecting the global gas demand and supply in the mid-term and long-

- term;
- Incentives for new supply;

new LNG projects. Also during the conference, Khalifa

Company's flare reduction programme. His paper focused on: • Qatargas' flare management approach; Main drivers and challenges for flare

- reduction: flaring:
- reporting successes.



Qatargas participated in the recent LNG 18 Conference and Exhibition in Perth, Australia. During the conference, senior executives presented papers highlighting the Company's focus on customer service as key to responding to evolving customer needs and its flare reduction programme.

 Development challenges; and The anticipated decline in costs of

Ahmed Al-Sulaiti, Qatargas Safety and Risk Manager, presented a paper on the

The various initiatives currently underway to manage and minimise

• The major capital projects undertaken by Qatargas; and Enhanced awareness, monitoring and



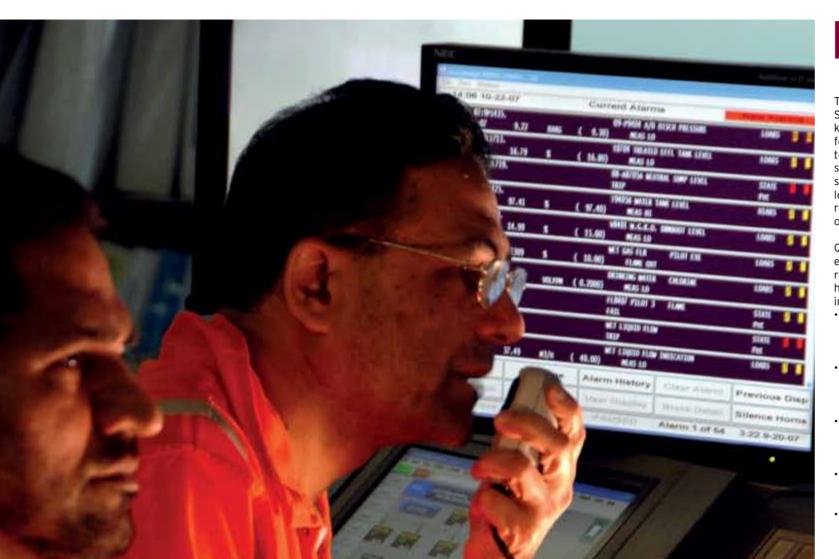
Khalifa Al-Sulaiti, Qatargas Safety and Risk Manager addresses delegates at LNG 18 on Qatargas' flare reduction programme.



Nabil Madani, Lead Rotating Equipment Engineer, (right) presents 'A Robust Refrigeration Compressor Simulation Model'.

### What a journey!

The Qatargas stand at the exhibition showcased the Company's incredible development in two short decades from when it was a start-up in the 1990s to its current position as the World's Premier LNG Company. The exhibition highlighted some of the key milestones accomplished along the journey.



# **Process Safety Symposium**

The Qatar Process Safety Symposium is an annual knowledge-sharing platform for industry representatives to stay abreast of successful safety stories, incident case studies, best practices, new legislative regimes and recent advances in research on process safety.

During the event. Qatargas representatives emphasised the Company's remarkable safety record highlighting key milestones includina:

- Qatargas 2 completed an entire year of operation without any recordable iniuries:
- Laffan Refinery completed two years of operation without recordable iniuries:
- Two major shutdowns were completed in 2015 without recordable injuries;
- Train 6 shutdown was completed safely and successfully in April; and Train 3 and Sulfur

Recovery Unit 4 (Plateau

Maintenance Project) shutdown was completed in Mav.

Delivering the plenary keynote address, Ahmed Helal Al-Mohannadi. Qatargas Chief Operating Officer - Operations, outlined Qatargas' strategy for managing and monitoring safety performance. noting the various safety programmes and initiatives in place, with an emphasis on the Qatargas Incident and Iniury Free (IIF) culture.

Khalifa Al-Sulaiti, Safety and Risk Manager at Qatargas, opened his presentation by showcasing the Safe Start 2016 video. and shared insights into Qatargas' on-going safety journey. He said, "We have developed a dedicated task force to identify root causes behind Loss of Primary Containment (LOPC's) and recommend enhancements to minimise all process safety events. We also continue to roll out campaigns that focus on safety themes."

# SAFETY REMAINS **A KEY FOCUS**

In meeting the objectives of the Qatargas Direction Statement to 'sustain an Incident and Injury Free (IIF) workplace, eliminate hydrocarbon releases and minimise our environmental footprint', the Company continually undertakes significant activities toward achieving key milestones.

# **Stellar safety** performance for Ventures Department

Leading by example, the Qatargas Ventures Department successfully surpassed the 12 million man-hours worked without a lost time incident (LTI) since 2013.

Commending the department, Sheikh Khalid Bin Abdulla Al-Thani, Chief Operating Officer - Engineering and Ventures, noted, "This is an outstanding achievement and

"Safety in Qatargas is not just a word or a commitment; it is translated into every action and appears in every task." - Khalifa Al-Sulaiti, Safety and Risk Manager, Qatargas.

Ahmed Helal Al-Mohannadi, Qatargas Chief Operating Officer - Operations, delivered the plenary keynote address during the Process Safety Symposiur

one which we are very proud of. This important milestone showcases the commitment of the entire team to the Qatargas Incident and Injury Free (IIF) culture."

Sheikh Khalid Abdulla Al-Thani believes that the 100 percent commitment from management to the safety ethos has



The number of man-hours without LTI achieved by the Ventures Department.

### "This important milestone showcases the commitment of the entire team to the Qatargas Incident and Injury Free (IIF) culture." - Sheikh Khalid Bin Abdulla Al-Thani, Chief Operating Officer - Engineering and Ventures.

helped in reaching this accomplishment. "This is a collective achievement and remarkable demonstration of teamwork by Qatargas Project Management Team, Qatargas Operations, contractors and sub-contractors. At Qatargas, safety is a core value shared by employees and contractors alike," he added.

This achievement once again proves that an IIF workplace is possible. Technology. engineering and maintaining high guality standards ensures safe LNG production and operational excellence.



The Ventures team celebrate their safety achievement.

# Train-3 and SRU-4 (PMP) shutdowns completed successfully

Qatargas 1's LNG Train-3 2016 shutdown was recently completed successfully, safely and within the scope and quality of all Qatargas requirements. The shutdown covered all the facilities of Train-3, Sulfur Recovery Unit (SRU)-4, Acid Gas Removal Unit (AGR)-4, Inlet Receiving unit (IR) and part of the Utilities Sea Water system.

During the shutdown execution, internal inspection of selected pressure vessels was carried out along with key replacements, justified corrective and preventive maintenance jobs and a significant number of venture projects. During this period, the LNG Train-1 and Train-2 shutdowns provided an opportunity for various replacements and repairs. And during the Plateau Maintenance Project (PMP) SRU-4/AGR-4 Shutdown, major refractory repair work was also carried out. Following almost 20 days of continuous work,

production resumed safely and on schedule. This was followed by SRU-4, marking the overall end of Qatargas 1 planned shutdown safely after a total of 35 days. Despite the complexity of the

shutdown project, the team achieved all of its objectives and leading Indicator KPIs, with zero leaks or rework during or after the shutdown. Furthermore, the entire project was completed within



The recent shutdowns covered all the facilities of Qatargas 1 LNG Train-3, SRU-4, AGR-4, IR and part of Utilities Sea Water syst

budget and on schedule, without any recordable wastage of time or resources. Among the lagging indicators, a minor recordable injury (medical treatment case), was reported. **Despite the** 

complexity of the shutdown project, the team achieved all its objectives and shutdown leading indicator KPIs with zero leaks or rework during or after the shutdown.

# Incident **Management Training**



Services Department held an Incident Management Team (IMT) training for managers and team members from various assets and functions across the Company.

Eighty-two managers and heads of sections attended the training, which covered the Qatargas Response Management Process, with the objective of developing competencies and strengthening the response readiness of Asset Leadership and Support Team functions. Attendees tested their ability to identify, mitigate and respond to any situations and exercised Incident

training.

The workshop included case studies, which required the use of incident management tools such as:

Event logging;

Stakeholder engagement.

capacity building.

# **Process Safety Barriers Management** – A proactive approach to prevent incidents

In the LNG industry, process safety barriers are control measures used to help prevent or mitigate a major accident. In the past, inadequate barrier management has led to many major incidents in the oil and gas industry and therefore, at Qatargas, Barrier Management is key in operating company facilities.

There are different types of process barriers such as People Barriers, Physical/ Equipment Barriers and Procedures Barriers.



A multidisciplinary team made up of Alvin Alfivansvah (SEQ), Vincent Hoe (OTS), Yasser Bassiony (OTS), Wahyu Hidavat (SEQ), Santhosh Nagappan (OTS), and Bensadek Belkacem (ENG) lead the Barrier Management Process

major Qatargas shareholders also joined the

 PEAR (people, environment, assets, reputation) situation boards; and

The training provided a practical roadmap as part of the Company's ongoing readiness in and continuous improvement of its response

EMS Department's incident manageme training strengthened the response readiness of Asset Leadership and Support Team function

### **Qatargas Barrier** Management process

"We know our barriers are in place & effective all the time"



# Heat Stress: an action plan

The Workers' Welfare and Occupational Health Forum is a Qatar Petroleum initiative organised

annually as part of the industry's commitment to meet the objectives of the Human Development pillar of the Qatar National Vision 2030 (QNV 2030). The objective of the forum is to make institutional arrangements for ensuring the health, safety and welfare of its expatriate labour.

Representing Qatargas at the event was the Medical Department's Senior Industrial Hygienist, Liew Saik Kien, who presented a paper entitled, 'Resilient Heat Stress

Management - the Qatargas Way'. With summer

- fast approaching, Kien highlighted: • The Company's heat stress management
- strategy; The measures adopted by the Industrial Hygiene Division to protect
- employees from heat exhaustion; and • Key points from its 2016 Heat Stress
- Management Action Plan.



### **Physical/Equipment** Barriers

Also known as a Safety Critical Element (SCE), these types of barriers must be regularly inspected, tested and maintained, to ensure: Structural integrity:

- Process Containment;
- Ianition Control:
- Detection Systems:
- Protection Systems:
- Shutdown Systems;
- Emergency Response; and Safety.
- Operations and Maintenance activities on SCEs demand

high performance standards in order to reduce the risk of a maior incident.

### A new Barrier Management Process

A multidisciplinary team led by OTS/Operations Excellence and comprised of Operations Excellence, Loss Prevention Engineering, Engineering and Maintenance has been formed to lead the initiative. The team is mandated with ensuring that major incident hazards and related barriers are identified. For each SCE, a Technical Authority (TA) is appointed, Performance Standards (PS) are defined and assurance tasks are executed. There are five key stages

to the Barrier Management Process (see inset): 1. Define and identify Safety

- Critical Elements; 2. Align with the assurance
- validation plan: 3. Identify and execute
- assurance activities; 4. Manage changes and
- deviations: and
- 5. Analyse, report and improve.

As part of the process, any change, deferment, nonconformance and deviation to each SCE is risk-assessed, reviewed by the appropriate TA and approved at the appropriate level.

### NURTURING NATIONAL TALENT

The annual CEO Forum for National Graduates and Trainees, Havvakkum campaign, scholarships, recognition awards and in house training courses are some of the initiatives that nurture Qatari national talent within Qatargas.



Running for 15 consecutive years, the **CEO Forum for National Graduates** and National Trainees forms an integral component of the Company's Qatarization strategy.

This year's forum, with the theme, 'My Career, My Responsibility' encouraged Nationals to take ownership of their own career development by embracing any one of a number of initiatives the Company has in place for developing national talent.

Addressing the Qatari Nationals. the CEO Khalid Bin Khalifa Al-Thani, was full of encouragement, explaining, "As National Graduates, you are the cornerstone of this incredible journey we are undertaking. At Qatargas we value



The award winners at the CEO Forum 2016.

89 The number of

days in 2015 that the heat index exceeded 54.

years, Qatargas has maintained a strong performance record with regard to heat-related incidents with zero reported incidents across all assets. Regrettably, there were two contractor incidents. In 2015, Qatargas recorded 89 davs when the heat index exceeded 54. With even hotter temperatures expected in 2016, the Heat Stress Action Plan has been developed to maintain resilience on climate change, with an on-going target of zero heat related incidents.

For the past two

Medical Department's Senior Industria Hygienist, Liew Saik Kien addresses delegates at the Workers' Welfare and Occupational Health Forum held

our national workforce and provide you with guidance as well as the necessary tools to grow in your professional life." Also addressing the forums, Ali Mohammed Al-Emadi, LNG Marketing Division Manager shared his success story with the National Graduates and Mones Khider Al-Rwaili, Head of Shutdown Operations, Onshore Support Operation shared his success with National Trainees.

### New Individual Development Programme platform

The forum also provided an opportunity for the Qatargas Learning and Development Department to announce the enhancement of Individual

Development Programme (IDP) workflow.

Other significant launches by the Learning and Development Department this year include:

- National Graduate Development Programme e-learning;
- Coaching Community; and
- New Technical Preparation Programme (TPP).

### Awards

During the forum the CEO presented awards to the best national graduates on scholarship and development. Furthermore, trainees and coaches were awarded for their outstanding performance in 2016.

### Focus Group

The Focus Group is instrumental in organising the CEO forum in association with the Learning and Development (L&D) Department. Each year the L&D Department invites National Graduates to form this group which comprises a number of National Graduates representing each group across Qatargas functions with the objective of enhancing communication between L&D Department and the graduate community.

### Best Coaches

- Shihaam Bawa -Administration - HR
- Shane Palmer C & S Sales Δdmin • Bouchebri El-Hadi - E & V -
- Engineering

**••** Setting the right goals is the first step in climbing the ladder of success in any career. At Qatargas, the learning and development process helps everyone do this in the best possible manner." -Fahad Thani Al-Mesaifri - Finance

**••** Obtaining this award has motivated me to work even harder, and to continue to support the Qatarization programme. This award holds a very special place in my heart." -Muhammad Ramzan Babar - Operation Maintenance

### Best National Graduates

Alanood Al-Malki - Administration - HR

Award recipients and their feedback

- Aljohara Abdulmohsen Al-Manaa C & S Sales Admin
- Eman Raii Elhmoud E & V Engineering
- Fahad Moh'd Al-Hajri Operations Maintenance
- Ghada Abdulla Al-Ábdulla Administration L & D
- Sara Mohammed Al-Hail Finance

### Best Coaches of Trainees

- Riad Boudiadia Operation Maintenance
- **cc** I am profoundly honored to be selected as one of the best coaches. This recognition is a great motivation for me to continue to contribute to the development of young Qataris." -Sofiane Khiari - Operation Process

It's very heartening to know that my engagement as a coach has helped trainees acquire professional skills, whilst simultaneously sharpening my own knowledge." -Babu Raj Dharmarajan -Engineering - Integrity

QATARGAS

Oatargas Operating my Limited (Gatarnas

Generation and determination are key factors in a successful career. The theme of the CEO Forum was 'My Career My Responsibility', and I am determined to work hard to ensure that Qatargas maintains its position as the World's Premier LNG Company." -Mohammed Nasser Al-Saadi - Finance

### Scholarship - Academic Excellence

- Navef Ali Al-Briki RLTO
- AbdulRahman Metair Al-Enazi RLTO
- Mohammed Ali R A Al-Sulaiti RLTO
- The award gave me the motivation to develop myself and to continually take ownership of my own development and career path." - Abdulla Ali Al-Kubaisi - RLTO

### Best National Trainees

- Eisa Rashid Almudahka Engineering Integrity Abdulla Menassar Mousa - Operation Process
- Naif Salah Sayyar Operation Maintenance

The World's Premier LNG Company

# **REACHING OUT TO FUTURE** TALENT THROUGH SOCIAL MEDIA

The most recent development of the ongoing Hayyakum programme has been an outreach recruitment campaign delivered across social media. The Qatargas campaign aims to recruit Qatari High School and University graduates by highlighting the different career opportunities the Company can offer.

Projecting an exciting culture of learning, innovation, diversity and excellence, the campaign mirrors some of the objectives of the Company's Direction Statement. The

campaign builds on Qatargas' reputation as the World's Premier LNG Company to capture the students' attention, and particularly focuses on two of the Company's Qatarization initiaitives.

### 1. Technical Preparation Programme

The Technical Preparation Programme (TPP) offers Qatari Nationals with high school diplomas rewarding roles in Process, Electrical, Mechanical and Instrumentation disciplines. The three-year programme prepares young



Qatari Nationals for key technical positions across Qatargas' Operations and Maintenance departments. It provides a combination of theoretical offsite training, delivered at the College of the North Atlantic (CNA-Q) and workplace learning, completed at Qatargas facilities.

### 2. Individual Development Programme

The Individual Development Programme (IDP) offer exciting career prospects to Nationals that hold a Bachelor's Degree in disciplines such as Engineering, Information Technology, and Business Administration.

# LONG SERVICE AND SHUKRAN AWARDS

An award ceremony was held to recognise employees for their dedicated long service to the Company, and for outstanding achievements. A total of 185 Qatargas employees received the Shukran award and 362 employees received the Long Service award.

Addressing the awardees. Khalid Bin Khalifa Al-Thani, CEO, said, "Let me start by congratulating all of you who are here to receive the Shukran award. This award is in recognition of your outstanding performance and valuable contribution

towards achieving the Company's business goals. I would therefore like to say my personal 'shukran' to all of you. and encourage you to keep up this high level of performance. I would also like to extend my



Award winners pose with the CEO and senior management

# **MUAITHER SHINES IN QATARGAS LEAGUE**

Qatargas' robust corporate social responsibility programme includes its support for various sports. For the past three years, the Company has been the title sponsor of the country's reserve and second division football league, which is now known as Qatargas League.

Qatar Football Association (QFA), in partnership with Qatargas, recently crowned Muaither Sports Club as champions of the Qatargas League. In winning the league, Muaither gained promotion to the Qatar Stars League.

Sheikh Khalid Bin Abdullah Al-Thani, Chief Operating Officer - Engineering and Ventures at Qatargas and Ahmad Abdul Aziz Al-Buainain, a member of the QFA Executive Committee, were among the dignitaries present at the award ceremony. "We are very pleased

with the Qatargas League's

positive evolution, which has contributed to the promotion of the game during the past two seasons," said Sheikh Khalid Bin Abdullah Al-Thani, adding: "It has also contributed to achieving our goals of elevating football in light of the country's preparations to host the FIFA World Cup 2022."

In total, 18 clubs from reserve and second division league took part in the Qatargas League's 2015 to 2016 season, the third year the league has been held in its current form in partnership with the Company.

congratulations to those of you who have received a Long Service Award. This award is a reflection of your hard work, professionalism and contribution to the success of Qatargas over many years."

185 Employees received the Shukran award.

OUTSTANDING **ACHIEVEMENTS** 



Employees received the Long Service award.





Qatargas and QFA officials join the players and officials of Muaither, Champions of the Qatargas League for the 2015-16 sea

# **BEING SOCIALLY** RESPONSIBLE

Qatargas employees and their families have been participating in a host of events organised in line with the Company's mission to be socially responsible by actively contributing to social, community and local business. As well as spreading many positive environmental and medical messages, the participants had a lot of fun in the process.

### **PRESERVING QATAR'S BEACHES**

The third annual Qatargas beach clean-up took place at Al Ghariva beach, some 100 kilometres North of Doha. Organised in collaboration with the Ministry of Municipality and Environment, the clean-up forms part of the Company's activities in its commitment to promoting environmental protection and preserving the natural beauty of the State of Qatar for generations to come.

Azzam AbdulAziz Al-Mannai, Qatargas Public Relations Manager, thanked the Qatargas volunteers who participated in the beach clean-up for setting aside their personal time to work towards environmental protection. He added.

"Initiatives aimed at promoting environmental protection form an integral part of Qatargas' Corporate Social Responsibility programme. Our efforts in this area are fully aligned with the objectives of the Qatar National Vision 2030."



### **DONATING VALUABLE** 'DROPS OF LIFE'

Due to the constant demand for healthy and reliable blood to help people in need, there is a constant requirement for blood donations. That is why, for the past 15 years, Qatargas has organised regular blood donation campaigns at its premises in coordination with Hamad Medical Corporation (HMC).

For people who need transfusions, donated blood could save their life. Qatargas was recognised by HMC for its ongoing support in raising awareness for HMC's blood donation drive at the 'World Blood Donor Day' celebration.

The ceremony was organised by HMC in recognition of individuals and organisations who supported HMC in its bid to promote voluntary blood donation amongst the community and helping the blood bank increase its supply of life saving blood.

World Blood Donor Day is celebrated worldwide annually on June 14 in order to raise awareness of the need for safe and adequate blood, and to thank voluntary blood donors for their life saving gifts of blood.



Azzam AbdulAziz Al-Mannai, Public Relations Manager, Qatargas, received a commemorative plaque and certificate of appreciation from Dr. Saleh Ali Al-Marri, Assistant Secretary General for Medical Affairs at the Ministry of Public Health, in recognition of the Company's support as 'Gold Sponsor' of the World Blood Donor Day event, and its efforts in supporting HMC's blood donation campaigns.

### HEALTHY LIVING

At the Healthy Diet event, participants were provided with a free medical assessment including weight, height, blood sugar and blood pressure checks, in addition to counselling sessions on healthy diet and growth monitoring in infants and children.

The event was part of a series of activities organised by the Qatargas Medical Department in 2016 in an effort to raise awareness on the importance of having a balanced lifestyle.



The number of employees and their families who attended the Healthy Diet event at Qatargas Doha Medical Centre





Dentists and dental hygienists from the Qatargas Medical Department met with employees in a more relaxed environment

Mickey Mouse and Elmo attended the event to keep children entertained and encourage them to live a healthy lifestyle

Meanwhile, Al Khor Community concluded its 12week SAHA healthy lifestyle campaign, in which 230 participants committed to adopting a healthier lifestyle, improving their nutrition and becoming more active.

Keeping with the healthy living theme, the Medical Department also hosted an educational event on oral hygiene at the Qatargas Doha Head Office. The 'Ask the Dentist' event aimed to help people understand proper oral hygiene measures.

For many, a visit to the dentist can be a daunting prospect, and so the friendly dentists were on hand to discuss important dental health issues in a more relaxed environment than the dentist's chair.



The number of residents from Al Khor Community who participated in the 12-week SAHA healthy lifestyle campaign.



As our lives and daily routines at work and at home become busier, we need to take time to stop, think and refresh our commitment to the environment, to be conscious of our environmental impact and footprint and remember the important role that each

of us has in protecting and respecting the environment for the generations to follow. The State of Qatar has recognised sustainable environmental development as a key pillar of the Qatar National Vision 2030 which also includes an environmentally aware and

conscious public as a national development objective. With this in mind, our most recent Go Green campaign focused on remembering our key responsibilities towards environmental protection, water and energy conservation and minimising food waste.



### **PROTECT THE ENVIRONMENT**

- Reduce, re-use and recycle where possible
- Give away or donate your old items rather than throwing them away
- Give your car a break walk and cycle more



### SAVE WATER AND ENERGY

- Water is life use it wisely • Buy water and energy efficient appliances
- Turn off electrical items when not in use



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VIII I

### **REDUCE FOOD WASTE**

- Think before you buy
- Consume only what you need
- Minimise what you throw away give away what you can