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# Visionary achievements

Abu Dhabi Gas Liquefaction Company l

#### A quote by His Highness Sheikh Zayed bin Sultan Al-Nahyan

"Allah has given you the opportunities which were not given to generations before you. Do not waste them, or that would be an affront to Allah, your country and yourselves."



General Sheikh Mohammed bin Zayed Al-Nahyan Crown Prince of Abu Dhabi, Deputy Supreme Commander of the UAE Armed Forces, and Chairman of the Abu Dhabi Executive Council

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H.H. Sheikh Khalifa bin Zayed Al-Nahyan UAE President and Ruler of Abu Dhabi

### Welcome to ADGAS

The General Manager's Message

It is my distinct pleasure to welcome you to discover ADGAS – a company that proudly reflects the history, culture and determination of our nation and of each and every Emirati.

At ADGAS, we have always made it our highest priority to conduct business in a responsible and trustworthy manner, placing a premium on the integrity of our relationships with clients, partners, employees, the industry, and society at large. Our prime considerations are for providing a safe and healthy working environment for our employees, protecting and preserving our natural environment for generations to come, and maintaining the efficiency and reliability of our plant at Das Island. In this way, we will be able to continue to provide a reliable source of environment-friendly and clean energy to our customers around the world.

The success of ADGAS has only been made possible by building on the solid foundation that was established through the vision and wisdom of the late H.H. Sheikh Zayed bin Sultan Al-Nahyan, founding father of the UAE. Now, as H.H. Sheikh Khalifa bin Zayed Al-Nahyan, President of the UAE and Ruler of Abu Dhabi, continues to adeptly guide the UAE to even greater heights, ADGAS is ideally-positioned to contribute to the economic development of our nation and to expand our operations within the UAE and worldwide.

ADGAS' remarkable achievements over the years have only been made possible through the commitment to excellence of our dedicated and highly-skilled staff. ADGAS promotes a working culture that empowers every employee to be proactive in making ADGAS a better place to work and a more profitable business.

Providing employment and training for UAE nationals at all levels of our organisation is a key objective in the years to come. Our company, our country and our families will all benefit by supporting and training Emiratis to become productive and well-rounded members of society. In addition, we will continue to invest in developing our staff, equipping them with the skills and knowledge required to establish and maintain the highest standards of safety, professionalism and expertise throughout the company. Every ADGAS employee takes great pride in the company's sound HSE history. We reached an astounding 25 million man-hours without a Lost Time Injury in 2006 and our Health, Safety and Environment Management System ensures that we operate responsibly to protect our employees and our environment. Preserving the earth's climate and minimising damage to the environment remain of paramount importance to us today and will continue to be so in the future.

Looking ahead, we are determined to consistently expand and develop in terms of both productivity and efficiency, offering our customers the most reliable source of clean, natural energy coupled with outstanding levels of service and the highest standards of safety. We see a global opportunity to develop our business and we will move decisively, counteracting increased costs by becoming more efficient in all of our activities. We will continue to help build the United Arab Emirates' economy, train and hire qualified Emiratis, and offer attractive return on investment to our esteemed shareholders.

On behalf of the entire ADGAS team, I would like to express our gratitude to our valued shareholders, for their trust and support. I would also like to communicate our appreciation to our contractors and suppliers for their dedication and commitment. On a personal note, I would like to thank our management and staff, who have sacrificed much, shown loyalty and professionalism, and worked extremely hard to make ADGAS what it is today.

Finally, I would like to thank you for taking the time to learn about the history, priorities, challenges, and objectives of ADGAS. It is my privilege to welcome you to the company – I sincerely hope that you will enjoy it.

Sincerely,

Saif Ahmed Al Ghafli



### **Our philosophy**

#### Vision

We will play a leading role in the gas industry, creating wealth and value by implementing the national energy strategy and serving our valued customers and community in a socially responsible manner.

#### **Mission**

We will achieve our vision through the safe and efficient production, sale and delivery of LNG, LPG and natural gases, locally and worldwide, building on our strong history, solid partnerships, and dedicated staff. We will strive to maintain our excellent international reputation for reliability, integrity and efficiency, continually improving our operational performance and HSE standards, and attracting, developing and retaining the best and brightest individuals for our staff.

### **Highlights and Achievements**



Sheikh Zayed issues visionary directives to cease unnecessary flaring of natural gases.

1970

#### 1973

1990

ADGAS is founded, with ADNOC, Mitsui & co. Ltd, BP, Total and Bridgestone as shareholders. Construction of the Das Island gas liquefaction plant begins.

#### 1975 ADNOC increases its

shareholding in ADGAS to

# **51%**



New computer-based digital

control system is installed at

the Das Island plant.



1972

20-year agreement to supply LNG and LPG

to the Tokyo Electric

Power Company

(TEPCO) is signed.

TEPCO

Sheikh Zayed officially

Middle East is loaded.

inaugurates the plant

1977

First shipment of Sulphur is exported.

1993

#### 1994

Island becomes operational.

1997

#### 2002

2004

New corporate identity for ADGAS is launched on the 25th anniversary of its first LNG shipment

# ADGAS



ADGAS' third LNG process train at Das

ADGAS' environmental system is awarded ISO-14001 certification



100 million tonnes of LNG produced since

#### 1997

ADNOC increases its shareholding in ADGAS



ADGAS moves to its new Corporate Headquarters on the Abu Dhabi Corniche





2006 Safety Milestone of





# The Evolution of ADGAS



### Our history

The history of ADGAS reads like the history of the UAE and its people. ADGAS has made a name for itself on the international stage, while remaining true to its treasured customs and traditions. By building on its strong history and continuing to be a responsible social, cultural and economic player within Abu Dhabi and the UAE, ADGAS is well-positioned to play an important role in the international LNG industry for many years to come.

#### **Our history**

The first discovery of oil in what is now the territorial UAE was made at Umm Shaif in 1958, just 150 km off the coastline of Abu Dhabi. Less than 5 years later, in 1962, UAE-produced oil hit the international markets for the first time, dramatically changing the course of Abu Dhabi, the nation's economy and its importance on the world stage.

It would not be long before the wisdom and guidance of a great leader led to the creation of the Middle East's gas industry.

While on a visit to Das Island in the early 1970's, H.H. Sheikh Zayed bin Sultan Al-Nahyan, the late President and Founder of the UAE, keenly observed and enquired about the burning of associated gases, produced during oil extraction and production, into the atmosphere – a process called flaring. Flaring was standard procedure at the time, but Sheikh Zayed decreed it to be a waste of precious natural resources and an avoidable cause of damage to the environment.

This visit resulted in H.H. Sheikh Khalifa bin Zaved Al-Nahyan, then the Crown Prince of Abu Dhabi, issuing a joint directive to cease the unnecessary flaring of associated gases immediately. By laying the groundwork for natural gases to be captured and sold as fuel, this visionary decision has had a tremendous impact on protecting the country's environment, and contributing to the nation's impressive economic development, ultimately benefiting the citizens and residents of the UAE.

While extensive studies were showing that natural gas was one of the cleanest and most environment-friendly fuels available, several large industrialised countries were looking for a reliable, clean and efficient energy supply to address their growing demands. Based on these factors, the decision was made to construct a gas liquefaction plant on Das Island, which was already the storage facility for offshore oil, ideally situated just 10 km from the Umm Shaif oilfield.

In 1972, the Tokyo Electric Power Company (TEPCO), signed an agreement to purchase the LNG to be produced at the plant for a 20-year period for use in power generation in and around the Japanese capital. The next year, ADGAS was officially founded as a joint venture between the Abu Dhabi National Oil Company (ADNOC), Mitsui & Co. Ltd., BP. Total and Bridgestone. Later the same year. ADGAS was formally registered and the contract for the construction of the Das Island gas liquefaction plant was signed, with Sheikh Zayed doing the honour of laying the plant's

foundation stone.

As construction on Das Island proceeded, ADNOC established a controlling stake in ADGAS in 1975 by increasing its shareholding to 51%. This led to ADNOC deciding to incorporate the company in Abu Dhabi in 1977, shortly before the plant became operational. After over five years of planning and building, this momentous occasion took place in early 1977 - two state-of-the-art processing trains came online, producing the Middle East's first ever LNG and LPG and effectively ending the era of associated aas flarina.

ADGAS' first shipment of LNG left Das Island on April 29th. 1977, making ADGAS the pioneer of the Middle East's gas liquefaction industry. Marking the occasion, Sheikh Zayed, who had maintained an active interest in ADGAS' development and returned to Das Island frequently to inspect the plant's progress during construction, officially inaugurated the Das Island plant.

In the 1980's, the company's core operations proceeded smoothly and several improvement projects were undertaken to increase the safety and overall efficiency of the Das Island plant. In addition, construction of seven LNG and LPG storage tanks, and an ambitious sea-water intake project were completed in 1986 and 1988 respectively.

In 1990, ADGAS upgraded the Das Island plant control system to a fully computerised digital command centre. Later that same year, as testimony to the strong business relationship that had developed over almost two decades, ADGAS and TEPCO signed a new 25-year agreement doubling the amount of LNG to be delivered to TEPCO as of 1994.

To meet its obligations under this new agreement, ADGAS immediately constructed a third, massive LNG processing train at Das Island. This train became operational on schedule in 1994, effectively doubling the plant's LNG production.

In 1997, ADNOC expanded it's commitment in ADGAS by increasing its shareholding to 70% and ADGAS relocated to its new corporate headquarters on the Abu Dhabi Corniche. Several other noteworthy events took place the same year,



### The start of great things

including successfully completing phase two of the Das Island jetty longevity project, passing 50 million tonnes of LNG delivered to TEPCO, and reaching 6 million man-hours worked without a lost time injury (LTI).

The next year, marking 25 years of successful operations with a silver jubilee celebration, ADGAS signed an LNG sale agreement with Edison Gas of Italy, and made its first LNG shipment to South Korea. Then, in 2002, to mark the 25th anniversary of ADGAS' first LNG shipment, a fresh, new corporate identity was launched, positioning ADGAS as the natural energy provider of choice in the 21st century.

Production and sales for a single year broke the 8 million tonne barrier for the first time in 1997, and then in late 2005, ADGAS' total LNG production since operations started passed the 100 million tonne mark - both remarkable achievements and great occasions for celebration throughout the company.

#### Setting high standards in Safety, Training, and the Environment

ADGAS continues to build on its impeccable safety record. setting high standards and remaining dedicated to reaching and surpassing its targets. New LTI records were reached in 2004, hitting the 8 and 13 million man-hours marks, and

then topping that by reaching 14 million man-hours worked in 2005 and an astounding 25 million man-hours without an LTI in September of 2006 – a high benchmark for the future.

Environmental awareness and protection has been a primary focus since the early days at ADGAS, making the day in 2004 - when ADGAS' environmental management system received ISO-14001 certification - a very special one. Also in 2004, ADGAS went on to re-develop its Health, Safety and Environment Management System (HSEMS) to fully comply with ADNOC's industry best practice corporate HSEMS policy.

ADGAS places the highest priority on attracting, developing and retaining the most professional employees in the Oil & Gas Industry. To this end, the ADGAS Training Portal, covering the plant's training needs, was launched in 2004. Building upon its ungualified success, it was then expanded in 2005 to cover training and development functions throughout ADGAS. The successful implementation of the Competence Assurance Management System (CAMS) was celebrated later the same year - a testament to the value placed on each member of the ADGAS team.



## World-class processes and standards



A source of light and energy in the vast wilderness of the Gulf, Das Island is a unique site with a long history in the Oil & Gas industry. Its connection with oil and gas began in 1953, when the first oil exploration expeditions were carried out in Abu Dhabi's territorial waters. Since then, it has developed into a key strategic hub, known for its reliability, safety and overall operational excellence.

### **Das Island - The Heart of ADGAS**

Measuring only 2.5 km2, Das Island is small in size but it plays a major role in the region's Oil & Gas industry. It is the operational heart of ADGAS' business, a source of great pride for everyone at ADGAS, and the home away from home to over 3,000 staff members of ADGAS, other Group companies, and contractors.

This diminutive rectangular island lies just 160 km from the Abu Dhabi coastline, surrounded by the offshore oilfields that it serves.

In 1954, Das Island was selected as the most suitable base for offshore oil operations by ADMA Limited (which later became ADMA-OPCO). When oil production started at the Umm Shaif oilfield in 1962, Das Island was used as a land base, storage facility, and launch site of ADMA-OPCO's first oil consignment. Due to its strategic location and first-rate facilities, it remains the main oil storage site for the area to this day.

When ADGAS was established in 1973, Das Island was the natural choice for the region's first LNG plant. As ADGAS developed and quickly became the leading LNG producer in the region, the island found itself at the centre of a lucrative new revenue stream for the ADNOC Group. Das Island has continued to develop over the years and it now accommodates the industrial operations of both ADGAS and ADMA-OPCO.

As it is home to thousands of ADGAS and ADMA-OPCO employees year-round, comfort and well-being of resident employees on the island is of paramount importance. ADGAS ensures that all necessary services and facilities are freely available to its staff members, who work in shifts to keep operations running smoothly and safely around the clock. With colleagues living and working together in such close proximity, community spirit is a vital aspect of life on Das Island. To ensure the well-being and productivity of ADGAS employees, the Company has provided a wide variety of fun activities and events on the island. The year-round calendar is aimed at uniting a culturally-diverse staff by encouraging participation from everyone. While some employees join one of the over fifteen different social, sports and recreational clubs to meet colleagues after work, others prefer to catch the latest English, Arabic or Asian movie at the free cinema, or to keep fit at the fully-equipped gym and fitness centre. The island also boasts several shops and restaurants, in addition to convenient medical and administrative services, all designed to promote comfort and well-being for the island's residents.

Das Island's residents have easy access to the latest communication and entertainment technologies to keep in touch with their families and with what's happening around the world. Lodgings are fully equipped with Satellite TV, telephone, and high-speed internet service, in addition to private kitchens for a quick snack. The island also has its very own TV channel, broadcasting company news, events, activities, and flight schedules to and from Abu Dhabi. No expense has been spared to ensure that ADGAS staff have all the comforts of home during their stay on Das Island.



### Living and working in harmony



#### **The Gas Liquefaction Plant**

ADGAS has consistently played a leading role in the Middle East's gas industry by establishing an outstanding reputation for reliability in both local and international markets.

Its operational core is the ADGAS gas liquefaction plant on Das Island, which consists of three trains that process an average of 8 million tonnes of associated and non-associated gases per year. It operates in full compliance with the highest international standards, and is a shining example of advanced planning strategies and processing techniques.

Trains 1 and 2 were originally commissioned in 1977, each with an operating capacity of 180 tonnes of LNG per hour. In 1990, after 13 years of successful operations with two processing trains, ADGAS and its largest customer, the Tokyo Electric Power Company (TEPCO), signed a long-term agreement to expand and consolidate their operations. The agreement was a clear sign of mutual respect and trust between the two energy conglomerates.

This agreement prompted ADGAS to build a third LNG train in 1994, at the time the largest and most advanced in the world. With a total operating capacity of over 370 tonnes per hour and an annual output of up to three million tonnes, it enabled ADGAS to double its production and output levels. Since then, all three trains have consistently operated at a higher capacity than their original designs as a result of frequent upgrades and debottlenecking carried out by ADGAS experts.

The ADGAS gas liquefaction plant is unique in its ability to process both associated and non-associated gases produced during oil production. Trains 1 and 2 can handle both types of gases at high and/or low pressures, while train 3 exclusively handles high pressure gas. This versatility is vital because feed gas obtained from Abu Dhabi's offshore oilfields comprises both associated and non-associated gases. Associated gas is obtained from the Umm Shaif, Zakum and Bunduq oilfields, whilst natural gas is found at the Abu Al Bukhoosh Kuff, Uweinat, Areaj and Umm Shaif Khuff oilfields, and at the cap gas fields. In total, the plant receives 12 distinct gas streams, and blends them to produce LNG and LPG and Pentane to meet clients' requirements.

ADGAS works in close cooperation with its sister companies ADMA-OPCO and the National Gas Shipping Company (NGSCO), which operates eight LNG ships to transport the plant's LNG products from Das Island. Through this coordination, ADGAS ensures that its operations are fully streamlined and managed according to individual customer requirements and strict delivery schedules.



### Efficiency, reliability and safety



### The Journey of LNG

The intricate process of extracting, purifying and cooling natural gas to produce Liquefied Natural Gas (LNG) at the Company's plant is managed efficiently and safely. It begins at the offshore oilfields, where associated gas is separated from crude oil, fed to Das Island, and combined with natural low pressure gas.

The valuable liquid hydrocarbon condensate is then extracted and impurities such as water, Carbon Dioxide (CO2) and Hydrogen Sulphide (H2) are removed in a thorough two-step process requiring chemical washing and treatment by absorbers.

The sweet dry hydrocarbon feed gas is then cooled in stages, first using Propane and then in the cryogenic section of the plant using a special multi-component refrigerant. Once the temperature of the hydrocarbon gas, primarily Methane (CH4) and Ethane (C2H6), is brought below -1600C, it condenses and becomes LNG.

During the cooling process, the condensed hydrocarbons are sent to the fractionation section to be separated into Propane (C3), Butane (C4) and Pentane (C5). Ethane is also separated, but returned to the cryogenic section to be used again in the processing procedure. In a separate process, molten Sulphur, another saleable product, is extracted from other acid gases at the Sulphur Recovery Unit through a delicate combustion process.

All gas products are then kept at atmospheric pressure in dedicated storage tanks, awaiting loading and delivery to ADGAS customers worldwide. Storage temperatures in the specially equipped tanks are carefully set and monitored at - 160°C for LNG, -44°C for Propane, -4°C for Butane, +18°C for Pentane and + 140°C for molten Sulphur.

### From our oilfields to your home





### The Journey of LPG

Liquefied Petroleum Gas (LPG), a mixture of primarily Propane and Butane, is a valuable clean fuel, aerosol propellant and refrigerant. It is produced from sweet gas during the cooling and separation process that is carried out in the fractionation section.

All the condensed hydrocarbons pass through the fractionation plant. First, the sweet gas is cooled and Methane and Ethane are separated from the condensed hydrocarbons to produce LPG. The gas passes through the main cryogenic exchanger and the remaining LPG that has condensed is also separated. Remaining uncondensed gas, which is primarily Methane and Ethane, is then extracted and passed back to the cryogenic exchanger for liquefaction.

Propane and Butane are distilled in stages and, after condensation and cooling, pumped into separate storage tanks. Propane and Butane products are transported to ADGAS clients around the world in specially-designed cargo tankers that carry both products in separate designated tanks. The component gases of LPG can then be combined to form precise LPG mixtures and shipped in speciallydesigned tankers to ADGAS clients around the world.



### A shared commitment to excellence

AL HAMRA

The close partnership between ADGAS and TEPCO, the Tokyo Electric Power Company, is a source of great pride for everyone at ADGAS. For over three decades, this strong, mutuallybeneficial union has been based on the core principles of respect, trust and reliability.



### ADGAS & TEPCO – A global partnership

TEPCO is one of Japan's largest and most prestigious energy producers and providers, supplying power for domestic and industrial purposes to the Japanese capital city of Tokyo and its suburbs, an area that is home to more than 12 million inhabitants.

ADGAS is dedicated to ensuring a continuous and reliable supply of LNG and LPG, which TEPCO transforms to provide Tokyo with electricity.

The unique collaboration between ADGAS and TEPCO began over thirty years ago in 1972, when TEPCO set out to find a reliable partner to supply it with vast amounts of clean and natural energy, in the form of LNG and LPG, to power its growing operations. Before the initial agreement was signed, comprehensive feasibility studies were carried out and confirmed the commercial viability of establishing a gas liquefaction plant on Das Island. Then, formal negotiations between TEPCO and ADGAS' original shareholders began and proceeded quickly towards a momentous outcome – the successful signing of an agreement for TEPCO to purchase the entire LNG production of ADGAS' Das Island plant for a period of 20 years.

From a commercial point of view, the ADGAS-TEPCO agreement was consummated on April 29th, 1977, when ADGAS' first-ever LNG shipment left Das Island aboard the tanker Hilli, bound for the Japanese terminal of Sodeguara in Tokyo Bay. Since that historic first shipment, the mutual respect and trust between the two energy giants has continued to grow. LNG and LPG shipments are regularly delivered according to established timetables and strict programmes, designed in compliance with the highest international safety standards and procedures.



### A bond of trust





# A strong bond with our culture, our people, and our society



ADGAS is not a solitary island; rather it is a proud, integrated member of the UAE community. Abu Dhabi is our home, our core and we are passionate about our role in the development of our society and our people.

### Our responsibility...

ADGAS has been blessed over the years to have received such strong and honest support from the Government of Abu Dhabi, as well as from ADNOC and other ADNOC Group companies. We have created long-term, mutually beneficial partnerships with some of the most respected companies in the UAE and around the world. In turn, we have established a long history of corporate social responsibility to give something back to the land from which we have grown.

#### ...to our community

ADGAS and every member of its staff support a wide range of worthy local initiatives, events and causes throughout the year. From charitable events and social causes to educational, economic, and health programmes and initiatives, ADGAS is proud to provide financial assistance, donations and sponsorship to make a difference.

As part of its social outreach, ADGAS provides scholarships to selected, high-potential students and arranges trips to Das Island for high-performing students, giving an overview of the plant's activities and explaining what it is like to be part of the ADGAS team. ADGAS also offers support to UAE schools, higher institutions and universities, presenting them with equipment, and participating in their exhibitions and open days.

To the greater community, ADGAS aims to create a bond of mutual respect and trust between members of its staff and the general public by participating in and celebrating such worthwhile, environmentally-focused events and initiatives as Arbor Week, National Environment Day, Beach Clean-up Campaigns, and Traffic Safety Week.

#### ...to our partners

A team is always stronger than its individual parts, just as ADGAS is bolstered by the important relationships that it has formed with its respected contractors, suppliers and clients, within the UAE and around the globe. ADGAS promotes its corporate partners and its industry, both locally and internationally, by attending and participating in Oil & Gas conferences, seminars and exhibitions. ADGAS is always honoured to frequently host visiting dignitaries, VIPs and official delegations from countries, private and public organisations, and companies worldwide.

#### ...to the ADGAS family

Our people are our greatest asset and responsibility. To help foster a community atmosphere within ADGAS, a wide variety of exciting activities and events are organised for employees and their families to participate in and enjoy. ADGAS arranges trips and excursions for employees, and organises employee well-being events and initiatives, to constantly improve the working environment and social life of its employees and their families. Sports tournaments are a prominent feature of ADGAS life, and an exceptional way of promoting teamwork among its staff through healthy competition. Football, volleyball and basketball tournaments are regularly held, as well as occasional cricket matches and fishing trips. The Baynounah Club, ADGAS' private sports and social club, is a haven within the city – employees go there to enjoy a delicious meal, see a movie at the private cinema, or just kick back and relax with friends and family.

During the holy month of Ramadan, senior managers host Iftar gatherings for employees and their families. These special events are perfect opportunities for the entire ADGAS family to celebrate this special month together. In addition, a number of charitable drives are undertaken during this period to raise money and provide support for those in need, throughout the region and worldwide.

#### ...to our nation and people

ADGAS is firmly committed to recruiting and developing Emirati nationals – providing them with the skills and education necessary to meaningfully contribute to the staff and to society in general. Its Emiratisation drive is intended not only to produce competent professionals, but also cultured, well-developed human beings, making positive contributions both inside and outside of the workplace.

Several important initiatives and policies are in place at ADGAS to attract, develop and retain Emirati nationals. It begins by sponsoring Emirati nationals whilst still at college – investing in them to ensure that they are able to contribute to the future prosperity of society. ADGAS also organises and participates in recruitment drives to find Emiratis with the ambition and aptitude to thrive.

At ADGAS, Emiratis are given every opportunity to choose a path that suits their individual interests and abilities. There are many exciting professions to choose from, each requiring unique skills and training. By investing in technical, management and HSE training, conducted by experienced ADGAS staff and by leading professional training organisations, ADGAS ensures that its employees are equipped with the correct skills and knowledge to perform tasks to the best of their ability.

In 2001, ADGAS started implementing the Competency Assurance Management System (CAMS), a structured programme establishing and implementing competency development frameworks for all ADNOC engineers. CAMS plays a vital role in developing the ADGAS staff, taking an employee from beginner level to expert at a pace determined by each individual's ability. Support is provided throughout the training process and assessments are carried out to ensure that a continuous and consistent competency level is developed, for the long-term benefit of the employee and the company.

# Building our nation and our people







# For the good of the environment

### **Our Environment**

The world is not ours; we are merely taking care of it for our children. At ADGAS, we are proud to have been given this great responsibility and we are committed to passing on a pristine environment for future generations to enjoy.

### **Our Environment**

Environmental conservation and awareness has always been at the heart of everything we do. In our continuous drive to become a sustainable energy company, we effectively apply the best environmental practices and employ the latest technologies to minimize the environmental footprint of our operations on air, land and water.

We are accountable not only to our stakeholders but also to the community at large to develop resources, conduct our operations, and offer our products and services in a responsible manner. We work closely and co-operatively with our neighbours, stakeholders and customers to make environmental awareness a priority. Only in this way can we maintain our current position as an industry leader in environmental protection and ensure even greater achievements in the future.

#### Leadership & Integrity

ADGAS was established according to the vision of the late H.H. Sheikh Zayed bin Sultan Al-Nahyan, The late President and Founder of the UAE, and will continue to lead the way in environmental issues by following his example and learning from his wisdom. At ADGAS, we understand that there are no shortcuts in life, which is why we employ transparent environmental practices and refuse to compromise with respect to the protection of the environment.

To this end, ADGAS continually monitors and evaluates the best global practices in environmental operations, creates and applies policies to ensure their proper application, and always strives to reach and exceed benchmarks and expectations.

Both the UAE Government and ADNOC take their environmental commitments extremely seriously and promote these values to partners, clients and society as a whole. ADNOC has established clear operating regulations for environmental protection for all group companies and subsidiaries.

At ADGAS, these strategic regulations form the foundation of our Health, Safety and Environmental Management System (HSEMS), which ensures that all of our operations are carried out in a safe and environmentally conscious manner. Our HSE efforts are complementary and interdependent with our economic and social performance, and we remain committed to managing our environmental issues in a way that meets or exceeds existing internationally recognised standards.

#### Programmes & Key Objectives

In order to effectively meet its environmental objectives and Key Performance Indicators (KPIs), ADGAS has several important ongoing environmental programmes, with which it will continue to improve environmental performance, implement best practises and minimise the negative impact of its operations on the environment.

ADGAS' commitment is reflected in its HSE policy and is highlighted in the following key environmental objectives, which are crucial to operating in a responsible and efficient manner:

- To reduce CO2 emissions by capturing flared gas and minimizing energy consumption
- To reduce SO2 emissions through plant efficiency improvements
- To replace ozone-depleting substances with eco-friendly substances, such as PCB-free transformer oil
- To minimise the impact of our operations on the marine ecosystem
- To encourage and support waste segregation and recycling in order to minimise land pollution
- To promote environmental awareness and responsibility amongst all our employees through a range of environmental awareness training courses and initiatives

#### International Standards

Reflecting a steadfast dedication to managing environmental issues according to internationally recognised standards, ADGAS' environmental management system received ISO 14001 certification in 2004. This certification allows an organisation to implement, maintain and improve its environmental management system by conforming to its own stated environmental policy and complying with prevailing environmental laws and regulations.

ADGAS is always looking for ways to enhance environmental performance. Since operations began on Das Island in 1977, several ambitious initiatives have been introduced to conserve and protect the surrounding environment. These include:

- Commissioning of Sulphur Recovery Units (SRU) to reduce SO2 emissions
- Installing highly efficient monitoring stations throughout the plant to further enhance efficiency and minimise environmental impact or damage
- Taking the first steps towards the long-term target of minimizing flaring to best-in-class levels in LNG industry by 2015.



### Together we can make a difference





## Dedicated to Health, Safety and the Environment

At ADGAS, it is our highest priority and common goal to ensure the safety of each one of our employees. Our entire team is committed to maintaining an incident-free work environment and to continually improving on safety standards and procedures at every level of our operations. This shared objective unifies the ADGAS staff, who take great pride in highlighting and celebrating the safety achievements of their colleagues and of ADGAS as a whole.

### A Culture of Safety



#### A culture of safety

At ADGAS, reviewing and improving safety measures is not solely a management issue; it is each employee's personal duty. The ADGAS Health, Safety and Environment Management System (HSEMS), a key part of ADGAS' drive to improve safety performance, was established to promote this shared passion for safety.

HSEMS requires rigorous and timely reporting of all observed incidents including Near Miss incidents, in order to assist in identifying underlying causes and eliminating recurrence of accidents. Our employees are recognised and rewarded for highlighting these events, and their suggestions for improvement form an invaluable part of making ADGAS as safe as possible. In addition, comprehensive safety audits are regularly conducted to improve processes, and establish and maintain safety best practices.

Over the years, ADGAS has been recognised by several international independent bodies as having superior safety processes and standards and an outstanding safety record. In 1993, ADGAS was accredited with the 3-star level of the International Safety Rating System, as evaluated by external auditors from the International Loss Control Institute. This certified that ADGAS' safety standards were comparable with those of the best performing multinational companies in the Oil and Gas industry. Since then, ADGAS' safety record has continued to improve and impress.

ADGAS was one of the first companies in the region to introduce a behavioural safety initiative programme, establishing a proactive approach to creating a culture of safe behaviour. This programme seeks to further enhance HSE performance by encouraging employees to:

- ask how a task can be performed more safely and efficiently
- propose changes to improve processes or procedures
- work together to make their jobs and their working environment safer for themselves and for those around them

ADGAS' largest shareholder, ADNOC, places particular emphasis on ensuring that individual Group companies adhere to its guiding principles, the ADNOC Codes of Practice. This comprehensive suite of HSE guidelines, by which all ADNOC Group companies must comply, has been independently certified to be in total compliance with the most stringent HSE management systems found in the Oil &

Gas industry worldwide. ADGAS aspires to achieve HSE performance levels that meet or surpass those of other companies in the industry.

Safety at Das Island presents unique challenges due to the complexity of the operations at the Plant and the island's distance from the mainland. To effectively address these issues, ADGAS on Das Island has dedicated Workplace and Executive HSE Committees. They are responsible for identifying potentially unsafe areas and processes in order to correct them before any incidents occur. In addition, the highly-trained and experienced fire-fighters and medical staff, who make up the Das Island Emergency Response Teams, ensure that any HSE incident at the plant is dealt with as effectively and efficiently as possible.

In 2005, ADGAS completed a comprehensive Health Risk Assessment in accordance with established ADNOC guidelines. This assessment showed that major health hazards, such as heat stress, Sulphur Dioxide, noise, and manual lifting are effectively maintained at risk levels that are As Low As Reasonably Practical (ALARP). In addition, a successful programme is in place to monitor the levels of the physical and chemical hazards in the workplace.

ADGAS makes a concerted effort to ensure that all its employees share HSE results, ideas, initiatives, achievements, and recognition. This important information is communicated in a number of ways, including the HSE monthly report, HSE monthly meetings, line management sessions, weekly meetings, and the ADGAS website. Another useful source of HSE information, the 'ADGAS News' is a popular internal bulletin distributed each month to all staff members. It frequently highlights important HSE issues and lessons learned at ADGAS.

The ADNOC HSE Awards programme was launched in 1997 to recognise outstanding achievements by ADNOC Group employees and contractors in a range of health, safety and environment performance categories.

AWARDS

DNOCHSE

# Leading towards safety excellence

In 1998, ADGAS won the Grand Award, in cooperation with sister companies ADMA-OPCO, ZADCO and Al-Bundug, for the successful implementation of a landmark project to minimise flare emissions through operational improvements. In 2001, ADGAS won first place in the Safety category, and in 2004 an ADGAS paper entitled 'ADGAS Pre-fire Plans' won top prize in the HSE Performance category.

ADGAS continually strives to build an inherent culture of safety by establishing safety performance as a primary area of focus for all employees, as well as an integral part of corporate strategy. This is instilled through a continuous safety awareness and training programme, which ensures that every employee has a deep understanding and commitment to the highest standards of safety in the workplace.

During its three-year benchmarking exercise from 2003-2005, ADGAS safety performance was ranked as the bestin-class among a group of leading LNG producers, clearly reflecting excellence in safety performance.



To effectively monitor and promote the safety performance of its plant and operations, ADGAS uses the standard industry measurement unit, the Lost Time Injury (LTI), All ADGAS administrative and support departments are evaluated using LTI targets, which are measured on an annual and cumulative basis.

#### Date

November 1997 April 2003 January 2004 December 2004 February 2005

#### Man-hours worked without LTI

6 million 4.5 million 8 million 13 million 14 million

As of September 2006, ADGAS and its Contractors have achieved 25 million consecutive LTI-free man-hours, which is equivalent to 1616 days.



# A bright future for ADGAS and the UAE



Built on the strong foundation established in over three decades of successful operation, the future of ADGAS is bright. By contributing to and drawing from the ongoing rapid economic development of Abu Dhabi and the UAE, ADGAS will continue to thrive, and is well-positioned to solidify its status as a leading player in the gas industry – supplying products within the UAE and worldwide, and exceeding shareholders' expectations.

### The future of ADGAS

#### The future of the industry

With over 34% of the world's known natural gas reserves located in Arab countries throughout the GCC, the UAE and its neighbours will remain a strategically important source of this valuable fuel for many years to come.

Abu Dhabi's oil and gas resources triggered the Emirate's rapid economic development and represent a major source of future revenue. Massive investment in infrastructure projects throughout the country has been funded by oil and gas revenue, resulting in a higher quality of life for the citizens and residents of the UAE.

Global energy experts agree that natural gas has established itself as one of the world's most important energy sources – an environment-friendly, cost-effective fuel with abundant global reserves. While it was originally utilised solely for heating and cooking, natural gas is now being used for industrial and commercial purposes within a number of different industries, as well as for the generation of electricity, and to power vehicles. Due to the versatility and adaptability of natural gas, future demand will continue to grow as many other potential applications are developed – the possibilities are truly endless.

#### Strategic objectives

To enable ADGAS to progressively develop in line with industry growth and according to consumer demand, strategic plans have been put in place to direct and assist ADGAS in achieving its ambitious medium and long-term goals. ADGAS will effectively combat increasing costs and a highly competitive market by ensuring sustained, safe and reliable LNG production and delivery to customers worldwide, constantly increasing operational efficiency and cost-effectiveness, and diligently working towards the longterm objective of zero flaring by 2015.

Since ADGAS' growth is tied to long-term, equitable relationships with trusted customers, ADGAS will continue to build on its outstanding reputation for reliability, flexibility, and HSE focus. It will also constantly strive to improve efficiency and refine processes by implementing cost optimisation and rationalisation strategies, as evidenced by the introduction of Six Sigma principles into its operations. In addition, ADGAS will seek to solidify its position as a major player in the local energy market by supplying gas to Abu Dhabi and the other emirates.

Emiratisation will play a key role in ADGAS' future, with everyone at ADGAS dedicated to achieving an ambitious target of a 75% Emirati national staff by 2009. In an increasingly competitive employment marketplace, ADGAS aims to provide unique opportunities for training and developing Emirati nationals, ultimately leading to long-term and rewarding careers within the company. In addition, all ADGAS employees will benefit from a wide range of exciting professional development opportunities aimed at enhancing their performance and professionalism.

#### The Das Island expansion and development plan

Under the supervision of ADNOC, and in conjunction with ADMA-OPCO, ADGAS has developed a masterplan for the expansion and development of the facilities on Das Island in order to more effectively meet customer and market demand in the years ahead. The masterplan, which covers both social and industrial aspects of life on the island, will benefit both companies by ultimately allowing them to reduce duplication – coordinating their efforts and activities in a more unified approach. Currently under consideration by the two companies' Boards of Directors, a decision to implement the masterplan is expected by 2007.