



PRINCIPAL SPONSORS:



29TH WORLD GAS CONFERENCE

BEIJING, CHINA 19-23 MAY

29th World Gas Conference Opening Ceremony 第29届世界燃气大会开幕式

20 May 2025 Beijing China

26

中国:北京 2025年5月20日



ENERGISING A SUSTAINABLE FUTURE: THE 29TH WORLD GAS **CONFERENCE OPENS IN** BEIJING

HARNESSING NIGERIA'S NATURAL GAS POTENTIAL **COLLABORATING TOWARDS DECARBONISATION:** OGCI & OGDC

NATURAL GAS: BACKBONE OF EGYPT'S ECONOMY

The future of energy depends on methane mitigation. 能源的未来取决于甲烷减排

15





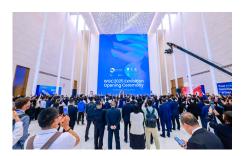


CONTENTS

3
Conference overview

4
Today's programme highlights

5 Exhibition



WGC2025 floorplan

7
Tomorrow's highlights



Technical tours

8
Networking reception

8
Exploring Beijing

General information

NEWS

Energising a Sustainable Future:
The 29th World Gas Conference
Opens in Beijing



12
Media Preview of the 29th World
Gas Conference Held in Beijing

INTERVIEWS

Harnessing Nigeria's natural gas potential





Ipieca: Making natural gas more sustainable with ESG

Green gases get a reality check while LNG oversupply may have a silver lining: RBAC

26
Collaborating towards
decarbonisation: OGCI & OGDC



Natural gas: backbone of Egypt's economy

CONFERENCE OVERVIEW

It was a pleasure to welcome you yesterday. We hope the day proved insightful and rewarding as you explored the evolving landscape of the gas and energy sector—and how, through collaboration and innovation, the industry can rise to meet growing global demands while advancing a sustainable future.

Today promises even more compelling content, with a dynamic lineup of Plenary Sessions, Current Debates, Industry Insights, and the Technology & Innovation Centre Sessions. Take advantage of the unparalleled networking opportunities throughout the day, and don't forget to visit our global exhibitors showcasing cutting-edge solutions and services.

As the world accelerates toward a more sustainable energy future, get ready to dive deeper into the innovations and ideas shaping what's next.

BADGE COLLECTION TIME & LOCATION

Your delegate badge is required to access the venue and all official *WGC2025* sessions and events.

BADGE REGISTRATION DESK:

First Floor, Exhibition Area A Foyer (Gate 7), CNCC II, Tianchen East Road, Chaoyang District, Beijing.

Wednesday 21 May 2025:	08:00-17:00
Thursday 22 May 2025:	08:00-20:30
Friday 23 May 2025:	08:00-12:00

WHAT TO BRING FOR BADGE COLLECTION

Individual Registrations:

Please present one of the following:

- Proof of registration (downloaded from "My Dashboard" on the *WGC2025* website).
- Your registration QR code if you haven't saved it beforehand, simply scan the onsite QR code to retrieve it when picking up your badge.
- · Passport or valid ID card.

Group Registrations:

Please present one of the following:

- Group proof of registration (from group account's "My Dashboard" on the *WGC2025* website).
- Your registration QR code if you haven't saved it beforehand, simply scan the onsite QR code to retrieve it when picking up your badge.

Exhibitors:

Exhibition Confirmation Letter (all badges under a company must be collected at the same time by the exhibitor representative).

WGC2025 EVENT APP

Download and login to the *WGC2025* Event App for the most up-to-date details of the *WGC2025* programme and a detailed description of the sessions and speakers.

The WGC2025 Event App will be an essential tool to help navigate the event. The App contains the programme for the week, the speakers, floorplan, and so much more.

HOW TO GET STARTED

Step 1: Download the Event App

Scan or click the QR code to download the app from the App Store, Google Play or search *WGC2025* and download the App.

Step 2: Log in

Please use your Registration User ID and Password which you created when you registered to *WGC2025* and log in to the Event App.







Key features available

- · Browse the full conference programme.
- · Explore speaker profiles.
- · View exhibitor & sponsor info.
- Get key event info floorplan, shuttle times and more.

If you require help or advice with regards to the App, please speak to our staff at Information Desk in the Foyer of Exhibition A (L1) and the Foyer of Exhibition B (L1), they will be happy to help.

DAILY NEWS



TODAY'S PROGRAMME HIGHLIGHTS

Setting the scene for today, we'll begin with a Leadership Dialogue with H.E. Saad Sherida Al-Kaabi, Minister of State for Energy Affairs of the State of Qatar and President & CEO of QatarEnergy, moderated by Michael Stoppard, Senior Advisor and Global Gas Strategy Lead at S&P Global

Time: 09:00 – 10:15 **Location:** L3 Ballroom



H.E. Saad Sherida Al-Kaabi Minister of State for Energy Affairs of the State of Qatar and President & CEO of QatarEnergy

Michael Stoppard Senior Advisor and Global Gas Strategy Lead at S&P Global

• PL04 – The Diversity of Gas Development Globally
Following the Leadership Dialogue, we'll dive into
this session where we'll explore how varying resource
endowments, economic stages, and social challenges shape
gas development worldwide. This session examines the
diverse paths countries take in the energy transition and why
energy access, availability, and affordability remain key to
progress.

DON'T MISS THIS MORNING'S CO-HOSTED SESSIONS:

• CD03: China's Natural Gas Development Prospects

Time: 10:45-11:30 Location: Room 251 Co-hosted by:



 CD07: AI as an Accelerator for the Digital and Intelligent Transformation of the Natural Gas Industry

Time: 10:45-11:30 Location: Room 244 Co-hosted by:

W ENN新興

· CD09: Opportunities and Challenges of Hydrogen Energy

Time: 11:45-12:30 Location: Room 251 Co-hosted by:



EXHIBITION

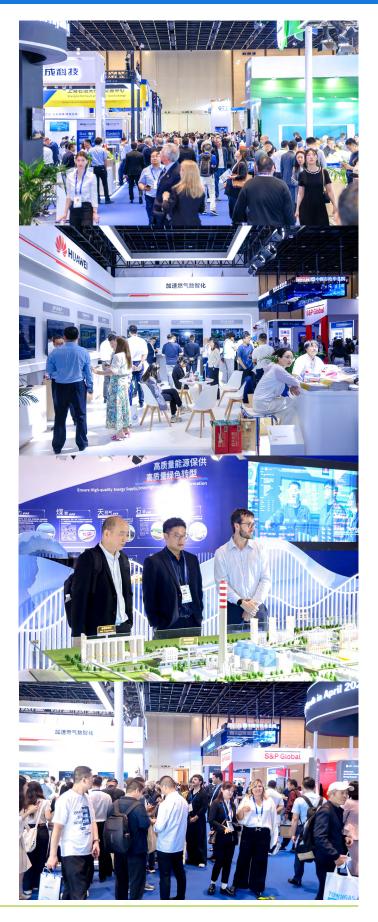
The WGC2025 Exhibition is now open to trade visitors and delegates! Explore this vibrant space where conference delegates, policymakers, industry leaders, and exhibitors come together. With exclusive access to cutting-edge innovations and key decision-makers, it's the place to spark new ideas, forge valuable connections, and drive your business forward. Don't miss it.

EXHIBITION OPENING TIMES

Wednesday 21 May 2025: 09:00 – 17:30 Thursday 22 May 2025: 09:00 – 17:30 Friday 23 May 2025: 09:00 – 14:00

Location: Exhibition A and B on L1, and Exhibition D on B1

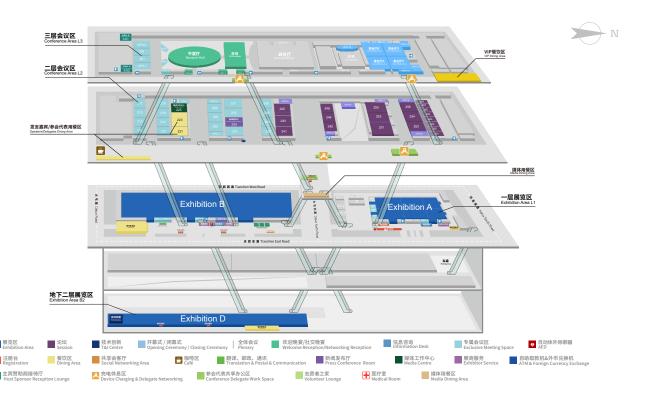








WGC2025 FLOORPLAN



TOMORROW'S HIGHLIGHTS

We kick off the morning with bold conversations about the future of the gas industry. Get ready for powerful insights into how technology and innovation are transforming the path to net-zero and what it means for your business.

 Plenary Session - PL06 - What is the Future of Global LNG?

Time: 09:00 - 10:15

Keynote Speech: Zhou Xinhuai, Board Director and President, China National Offshore Oil Corporation (CNOOC);
Vice Chairman and Chief Executive Officer, CNOOC Limited;
Carlo Bardini, Director of International and European
Activities, Energy Department of the Italian Ministry of
Environment and Energy Security and moderated by Yang Lei,
Deputy President Institute of Energy, Peking University
Panel Discussion: Farhad Ahrabi, President & CEO, Commonwealth LNG; Jonathan Westby, Senior VP of LNG, JERA Global
Markets; Sun Xiansheng, Chairman, International Society of
Energy Transition Studies and moderated by Menelaos Ydreos,
Secretary General, International Gas Union (IGU)

 Current Debates – CD17: Is It Time to Develop a Unified Global LNG Trading Model?

Time: 10:45 - 11:30

Moderator: Nan Xi, Partner, Rystad Energy

Panellists: Jonathan Westby, Senior VP of LNG, JERA Global Markets; Fabian Kor, EVP Asia-Pacific, Securing Energy for Europe GmbH; Li Yao, Founder & CEO, SIA Energy; Mehdi Chennoufi, Head of LNG Business Development & Origination Asia, Vitol

 Technology & Innovation Centre Sessions - TI13: Digital Transformation Examples with Gas Grid Operation

Time: 15:15 – 16:00

Moderator: Rafael Ferraz, Senior Engineer, Petrobras Speakers: Tony Wimpenny, Director, Bohr Limited; Alessandro Moretti, Manager Technical Department, Snam S.p.A; Chen Jiongshan, Deputy Director, The Hong Kong and China Gas Company Limited; Mohd Nazmi Mohd Alì Napiah, Custodian/Head/Group Technical Authority (Pipeline Engineering), PETRONAS

 Industry Insights – II22: Natural Gas and Renewable Gases Solutions: Best Vectors for Energy Efficiency and Energy Transition to Decarbonate Industries & Gas to Power

Time: 15:30 - 17:00

Moderator: Philippe Buchet, Director of Research Programs - Business Development; Senior Global Expert in Sciences, Energy & Environmental Efficiency and Transition to Zero Carbon Footprint, ENGIE Lab CRIGEN

Speakers: Anne-Sophie Corbeau, Global Research Scholar, Center on Global Energy Policy; Kevin Warner, Chief Science Officer, Mustang Sampling; Carlos Buitrago, Managing Director, PROMISOL; Stephane Hody, Project Leader, GRDF; Djallal Boucheneb, Head of Technical Feasibility Department, SONATRACH

TECHNICAL TOURS

Discover Beijing's energy and sustainability in action with two exclusive site visits:

Beijing Gas Xiji Station (The Xiji Gate Station, Beijing Gas Lvyuanda Clean Fuel Co., Ltd.) — Explore one of the city's key natural gas hubs.

Time: Thursday 22 May 2025 at 13:00 **Meeting Point:** Gates 6 and 7, CNCC II





Gaobeidian Reclaimed Water Plant, Huaneng Beijing Thermal

Power Plant — See how Beijing's largest reclaimed water plant supports the city's urban and industrial needs, and visit the thermal power plant, which has the strongest power generation capacity in Beijing and a leading heating capacity in China.

Time: Thursday 22 May 2025 at 13:00 **Meeting Point:** Gates 6 and 7, CNCC II

NETWORKING RECEPTION

Tomorrow, we'll host our final networking reception — a key opportunity to connect with fellow delegates, industry leaders, and experts in a relaxed and engaging setting. Enjoy refreshments and meaningful conversations as you reflect on the week's highlights, exchange ideas, and strengthen new connections.

Time: Thursday 22 May 2025 18:30-21:00 Location: Lunch Hall & Xi Yuan on Level 3, CNCC II Sponsored by WGC2028



EXPLORE BEIJING

Beyond our organised city tours, Beijing offers a captivating mix of imperial landmarks, cutting-edge architecture, and local culture. Here's a curated guide to some top spots worth visiting while you are here for *WGC2025*.

ICONIC LANDMARKS & HISTORICAL SITES

Tiananmen Square

One of the largest public squares globally, surrounded by significant landmarks such as the Great Hall of the People, the National Museum of China, and the Mausoleum of Mao Zedong.



Summer Palace

A serene retreat featuring imperial gardens, pavilions, and Kunming Lake. It's an ideal spot for a peaceful stroll or a boat ride.

LOCAL LIFE & HIDDEN GEMS

Hutongs & Houhai

Wander through Beijing's traditional alleyways to discover courtyard homes, local eateries, and vibrant nightlife around Houhai Lake.

Jingshan Park

Just north of the Forbidden City, this park offers panoramic views of the city and is a favorite spot for locals to gather.

Qianmen Street

A historic shopping avenue near Tiananmen Square, lined with traditional architecture and a mix of heritage shops and modern boutiques.

HELPFUL TIPS

Language & Connectivity: English is not widely spoken and translation apps can be very helpful.

Payments: Mobile payments like Alipay or WeChat Pay are widely used, set them up in advance to make transactions quick and easy.

Getting Around: The subway system is extensive and reliable. Taxis are also available and have your destination written in Chinese for ease.





GENERAL INFORMATION

Housekeeping

At *WGC2025*, we are committed to making it an enjoyable experience throughout this week. Below are some useful housekeeping guidelines to ensure your visit is memorable and educational:

Access to the Conference and Exhibition

For initial badge collection for individual delegates, please have the Proof of registration or your registration QR code. If you haven't saved them beforehand, you can simply scan the onsite QR code to retrieve your personal QR code or show Passport or valid ID card for badge pick-up. Group Proof of registration or your registration QR code is required for group registrations and Exhibition Confirmation Letter is needed for exhibitors badge collection.

You'll be required to wear your badge at all times during *WGC2025*, including social functions. You'll only be able to access the areas of the event that match your participation type, as shown on your badge.

Shuttle Buses

Complimentary shuttle buses for conference delegates and exhibitors are provided between the official partner hotels and CNCC. Further details can be found on the *WGC2025* Official Website and the Event App.

Dress Code

Business attire is requested for attendance at the conference, exhibition, technical tours and all networking functions.

Download the Event App

The Event App is your essential guide to WGC2025 with the full programme, speaker profiles, exhibition layout, and more all at your fingertips. If you have any questions, our team at the Information Desk in the Foyer of Exhibition A (L1) and the Foyer of Exhibition B (L1) will be happy to help.

Conference Refreshments

Morning tea, lunch and afternoon tea are provided to all conference delegates. Please see the times and locations in the event programme or on the *WGC2025* Event App. All conference delegates are reminded to wear their badge to access these areas. Bistros are open in both exhibition levels for food and beverage purchases for exhibitors and trade delegates. F&B Pop-ups will also be open for paid purchases, located in the northern part of Exhibition Area A's Foyer, the southern part of Exhibition Area B's Foyer and the outside of Exhibition Area D.

Charging Station

A Charging Lounge is located at Foyer of L2 and Foyer of L3.

Prayers Room

Both male and female prayer rooms are located at L3, 3-01 is for male and 3-02 is for female. Please refer to Directional Signage for further details

Photography

The organisers of WGC have professional photographers taking photos throughout the event. These images may be used in post-event reports, case studies, marketing collateral and supplied to industry media. If you do not want your photo to be taken, please advise the photographer.

Media and PR Enquiries

For media and PR enquiries please visit the Media Team at the Media Centre, at 225.

Medical Support and Emergency Assistance

First Aid is located at L1M. In the event of an emergency, please adhere to the instructions provided by security personnel and venue staff.

Smoking Policy

The CNCC is a non-smoking venue. Attendees are requested not to smoke inside the building.

Luggage Storage

The Luggage Storage is located in the Foyer of Exhibition A and Foyer of Exhibition B. The Luggage Storage is available for storage of personal items only and cannot be used for the storage of event-related material. The organisers do not take responsibility for any lost or stolen items.

Social Media

Follow us on social media for event highlights and why not tag us when you post on social media

- LinkedIn: 29th World Gas Conference
- Facebook: 29th World Gas Conference
- Instagram: @wgc_2025Twitter / X: @WGC_2025

 WeChat Official Account WGC2025. Scan the QR code bellow to connect:



Connect, follow and join in the discussion that we'll be having over the course of the week. Remember to use the hashtags in your posts relating to *WGC2025*:

#WGC2025 and #WorldGasConference

Wi-Fi

Free Wi-Fi will be available at the CNCC for the convenience of all WGC attendees.

Scan the QR code below, enter your name and ID number, and you will receive the Wi-Fi account and password. If you have a Chinese mainland mobile number, you can also connect to Wi-Fi by obtaining a verification code through your phone number. Please note that this account and password are for personal use only.



Mobile phones

Attendees will be asked to turn their mobile phones off or switch them to silent mode during the conference sessions.





ENERGISING A SUSTAINABLE FUTURE: THE 29TH WORLD GAS CONFERENCE OPENS IN BEIJING

On the morning of May 20, the 29th World Gas Conference (WGC2025) opened at the China National Convention Center in Beijing. Yin Li, Member of the Political Bureau of the CPC Central Committee and Secretary of the CPC Beijing Municipal Committee; Yin Yong, Deputy Secretary of the CPC Beijing Municipal Committee and Mayor of Beijing; Li Yalan, President of the International Gas Union; and Jin Liqun, President and Chair of the Board of Directors of the Asian Infrastructure Investment Bank, attended the opening ceremony. This marks the first time in the nearly 100-year history of the World Gas Conference that the event is being held in China. As one of the three flagship events of the International Gas Union (IGU), this year's conference is themed "Energising a Sustainable Future." It has brought together more than 3,000 delegates from 70 countries and regions around the world to engage in in-depth discussions and consensus-building on global energy transition, the development of the natural gas industry, and pathways to a sustainable future.

The opening ceremony was chaired by Mr. Cao Yujun, Chair of the National Organising Committee (NOC). Speeches were delivered by Li Yalan, President of the International Gas Union; Yin Yong, Mayor of Beijing; Wan Jinsong, Deputy Director of the National Energy Administration; Patrick Pouyanné, Chairman and CEO of TotalEnergies; and Dai Houliang, Chairman of China National Petroleum Corporation (CNPC).

Li Yalan, emphasised that amid multiple global challenges such as climate change, energy security and geopolitical tensions, natural gas — with its advantages of abundant reserves, cleanliness, efficiency and cost-effectiveness — is becoming an indispensable pillar of the global energy mix. She noted that China, as the world's largest importer of natural gas and LNG, is drawing growing international attention for its development model. In particular, she highlighted how Beijing has leveraged natural gas to significantly improve air quality, offering a replicable model for other developing countries.

Yin Yong stated that Beijing firmly implements the country's new energy security strategy and continues to promote the green and low-carbon transformation of the energy structure. Currently, natural gas accounts for more than 35% of Beijing's energy consumption. Through initiatives such as coal-to-gas conversion, the city has achieved a more than 60% reduction in average annual PM2.5

concentrations and nearly a 50% decrease in carbon intensity over the past decade. He reaffirmed Beijing's commitment to opening up and deepening international energy cooperation while promoting sustainable urban development.

Wan Jinsong noted that China's energy production and consumption continue to grow, with increasingly robust infrastructure and a nationwide unified gas network essentially completed. He emphasised significant improvements in natural gas dispatching and emergency response capacity. He said breakthroughs were seen in deep-earth, deep-sea, and unconventional resource development, helping boost output of natural gas. Wan proposed four key initiatives: enhancing supply capabilities to serve global public welfare, prioritising ecology in green development, empowering the energy system through digital transformation, and improving governance via multilateral cooperation. He called for continued openness and win-win collaboration to jointly build a secure, efficient, clean and low-carbon global energy system.

Patrick Pouyanné highlighted TotalEnergies' efforts to maintain its leadership in the conventional oil and gas market while actively participating in the global energy transition. He reiterated TotalEnergies' commitment to achieving net-zero emissions by 2050 and to furthering international cooperation to build a diversified, clean, secure and sustainable energy future.

Dai Houliang introduced CNPC's recent breakthroughs in deep oil and gas exploration, including the successful completion of a 10,000-metre ultra-deep drilling mission and continuous progress in unconventional resource development. As Asia's largest and the world's second-largest energy company, CNPC plays a key role in safeguarding national energy security and consistently undertakes critical supply missions during peak winter and summer periods. He stressed

CNPC's unwavering commitment to green transition, accelerating the integration of oil, gas, and new energy, and building a synergistic, multi-energy system. As the only Chinese member of the Oil and Gas Climate Initiative (OGCI), CNPC will continue to actively participate in global climate governance, contribute to China's carbon peak and carbon neutrality goals, and help extend the benefits of green development to more countries, clients, and communities, he said.

Following the speeches, Mr. Cao Yujun, Chair of the NOC, invited Yin Li, Member of the Political Bureau of the CPC Central Committee and Secretary of the CPC Beijing Municipal Committee; Yin Yong, Deputy Secretary of the CPC Beijing Municipal Committee and Mayor of Beijing; Li Yalan, President of the IGU; Wan Jinsong, Deputy Director of the National Energy Administration; Li Xiaolong, Vice Minister of Housing and Urban-Rural Development; Dai Houliang, Chairman of CNPC; and Patrick Pouyanné, Chairman and CEO of TotalEnergies, to jointly inaugurate the opening ceremony. As the countdown reached zero, the main screen lit up with the words "WGC2025 Officially Opens," and the venue erupted in enthusiastic applause – marking the official launch of the 29th World Gas Conference.

According to schedule, *WGC2025* will feature more than 80 high-level forums covering topics such as LNG development, natural gas and renewable energy integration, energy security and digital transformation. More than 400 distinguished guests will engage in deep dialogue on industry trends and technological innovation. The concurrent exhibition spans 50,000 square metres – the largest in the event's history – and is expected to attract more than 30,000 professional visitors from China and abroad.

The 29th World Gas Conference (*WGC2025*) is presented by the International Gas Union, hosted by Beijing Gas Group, and exclusively organised by Beijing Capital Group Exhibitions and Events

MEDIA PREVIEW OF THE 29TH WORLD GAS CONFERENCE HELD IN BEIJING

On the afternoon of May 19, 2025, the media preview of the 29th World Gas Conference (*WGC2025*) was held at the China National Convention Center in Beijing. On a guided tour, journalists entered and reviewed the venue of this grand gathering of the global gas industry.

This year's exhibition covers more than 50,000 square metres, making it the largest in WGC history. Zone A showcases the strength and responsibility of municipal gas enterprises. Zone B brings together the world's top 20 gas companies, reflecting the global influence and authoritative status of the event. Notably, Zone D features equipment and service providers across the gas industry supply chain – linking upstream and downstream sectors for



DAILY NEWS

the first time. This has been regarded as an innovative highlight of the event by presenting a holistic view of the energy industry ecosystem.

High-tech attendee services are available at the event. A mini AI-powered on-line application provides real-time updates and exhibition information. A service called "Digital Cubes" facilitates payment and communication for international attendees.

The green and low-carbon philosophy is fully applied in the construction of the event. All structures and materials used in construction are environmentally friendly and recyclable, while promotional content is delivered digitally via QR codes to support paperless operations.

The conference also places particular emphasis on nurturing young talent. This year's volunteer team includes students from institutions such as China University of Petroleum, Beijing Language and Culture University, and Beijing University of Civil Engineering and Architecture, who are gaining direct exposure to the global energy industry. This initiative reflects the conference's effort to help cultivate the next generation of energy talents.

Cultural exchange is another key highlight of *WGC2025*. More than ten cultural experiences are offered on-site, including kite-making, fan calligraphy and traditional Peking Opera costumes – showcasing Beijing's local culture and Chinese heritage. The "Italian Night" event will feature a blend of Italian opera and Chinese cultural experiences to celebrate the 55th anniversary of China–Italy diplomatic relations, deepening cross-cultural friendship and dialogue.

During the media preview, companies including Sinopec, CNOOC, PipeChina, Beijing Gas Group, and PETRONAS unveiled their latest innovations.

Sinopec showcased six core technologies in shale gas development and its million-tonne carbon capture utilisation and storage (CCUS) demonstration project, which captures and stores 1mn tonnes of $\rm CO_2$ annually – as an effort to support





China's dual-carbon goals. CNOOC highlighted its "Deep Sea No. 1" energy platform, the world's first 100,000-tonne deepwater semi-submersible production and storage facility independently developed by China. With cutting-edge technologies, it can operate continuously for 30 years – marking a major milestone in deep-sea energy development. PipeChina demonstrated its digital trading platform, which greatly simplifies the process of natural gas transportation. According to Yang An, Deputy General Manager of the company's Marketing Department, over 800 enterprises are using the platform.

Beijing Gas Group's exhibit showcased its strategy of "rooted in Beijing, expanding nationwide; focused on energy, integrated across the chain." With a service population exceeding 30mn and annual gas supply surpassing 24bn cubic metres (bcm), the company ranks first nationwide in scale. The booth illustrated its urban-rural supply network and highlighted a new model of clean energy by integrating over 100 energy projects with the "N+1+X" hydrogen energy system. The company also presented its "Smart Beijing Gas" platform, which integrates digital operations, service and management. Technologies such as inspection robots, ultrasonic testing equipment and smart welding systems showcased advances in safety and intelligent maintenance. Based on LNG terminals in Tianjin Nangang and Caofeidian, the company has built a 1.2-bcm emergency reserve and a full-chain trading system covering procurement, receiving, storage, distribution and delivery - enhancing energy resilience in the capital.

PETRONAS emphasised its green transition and community-focused strategies. Through interactive digital displays and an F1 racing simulator, the company showcased its responsible and innovative image.

With innovation driving breakthroughs, technology advancing development and exchange fostering cooperation, *WGC2025* is poised to inject new momentum into the sustainable future of the global energy industry.

The future of energy depends on methane mitigation.

能源的未来取决于甲烷减排 📲



Try the methane detection experience.

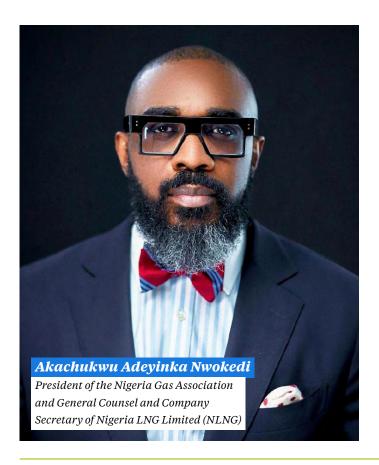
体验甲烷检测 Hall B: W37





HARNESSING NIGERIA'S NATURAL GAS POTENTIAL

AKACHUKWU ADEYINKA NWOKEDI, PRESIDENT OF THE NIGERIA GAS ASSOCIATION, SPEAKS TO THE WGC2025 DAILY ABOUT NIGERIA'S PROGRESS IN REALISING THE GOALS OF ITS DECADE OF GAS INITIATIVE, EFFORTS TO EXPAND ENERGY ACCESS WITH NATURAL GAS AND REDUCE FLARING, AS WELL AS HOW AFRICAN NATIONS CAN ATTRACT INTERNATIONAL FINANCING FOR NATURAL GAS DEVELOPMENT.

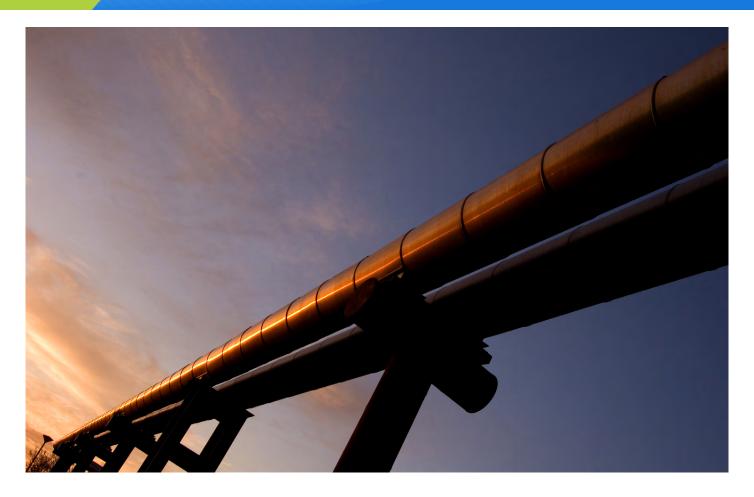


WGC2025 DAILY: NIGERIA'S DECADE OF GAS INITIATIVE WAS LAUNCHED TO ACCELERATE GAS DEVELOPMENT AND ENHANCE ITS ROLE AS A DRIVER FOR ECONOMIC DEVELOPMENT. WHAT TANGIBLE PROGRESS HAS BEEN MADE SO FAR, AND WHAT HAVE THE MAIN CHALLENGES BEEN?

Akachukwu Adeyinka Nwokedi: The Decade of Gas initiative is a public private partnership launched in 2021 with the goal to transform Nigeria to a gas-based economy by 2030, and since its launch, some of the significant milestones achieved include:

- The establishment of dedicated cabinet representation at the federal level for gas with the appointment of an Honourable Minister of State, Petroleum Resources (Gas).
- Identification and enabling of 20 critical gas projects with potential to unlock an additional 4.7bn ft³/day to the domestic market, to close the projected supply gap of 3bn ft³/d.
- Enhanced transparency in gas price regulation and the increase of the domestic gas base price by 10%, incentivising gas supply to the power sector to facilitate its stability and continuous growth.
- · Clearing over \$1bn in legacy arrears to gas suppliers.
- Executive orders granting improved fiscal terms for onshore, shallow and deep-water gas projects, which directly influenced the announcement of circa \$6bn worth of FIDs in 2024.





"The biggest challenge so far remains infrastructure. The critical Obiafu-Obrikom-Oben line, which had experienced technical delays, is expected to be completed in 2025."

The biggest challenge so far remains infrastructure. The critical Obiafu-Obrikom-Oben (OB3) line, which had experienced technical delays, is expected to be completed in 2025. The line will link gas assets in the eastern parts of Nigeria with major demand centres in the west and add 20% more gas to the domestic market.

An estimated \$22bn is required for full implementation of Nigeria's gas infrastructure outlook. Illiquidity and access to financing remains a significant sectoral challenge.

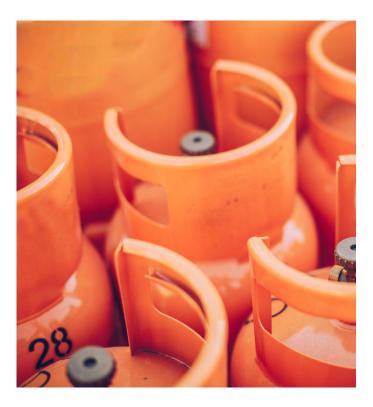
Supply of liquefied petroleum gas (LPG) is also a concern, which the recent Ministerial directive for the domestication of Nigeria's produced LPG volumes with a view to increasing supply and improving prices has tried to address.

Inadequate transmission and distribution infrastructure also present major obstacles to rapid development and growth within the power sector, which currently accounts for about 75% of Nigeria's domestic gas demand. Although gas-fired plants supply

80% of Nigeria's power requirements with an installed capacity of around 12-14 GW, generation and delivery is constrained to less than 5 GW due to the above-mentioned limitations. I must add that we have seen improvements in generation and delivery lately which is positive.

THE PETROLEUM INDUSTRY ACT (PIA) WAS EXPECTED TO TRANSFORM THE GAS SECTOR. HAS IT HAD THE INTENDED IMPACT, PARTICULARLY IN ATTRACTING INVESTMENT AND IMPROVING REGULATORY CLARITY?

The PIA was a huge step in the right direction for gas as it contained gas-focused provisions which was a first for Nigeria. Its delineation of upstream, midstream and downstream sectors has created the required clarity for industry operators and enhanced the industry. The commendable introduction of separate regulators for the upstream and midstream/downstream sectors has made regular stakeholder engagement necessary to identify and eliminate overlaps. In general, the PIA has delivered on its promise, bringing regulatory clarity and attracting significant investments in the upstream sectors since its passage in 2021. It is understood to be scheduled for legislative review to address some of identified shortcomings, and to keep it abreast of current geopolitical and industry trends.



WHAT PROGRESS HAS NATURAL GAS MADE IN RECENT YEARS IN EXPANDING ACCESS TO CLEANER COOKING AND TRANSPORTATION FUELS WHILE ALLEVIATING ENERGY POVERTY IN NIGERIA?

The ministerial directive on the domestication of previously exported LPG production has significantly impacted the supply and affordability of LPG in-country. NLNG pioneered the domestication of LPG production in 2007, and the recent ministerial directive is expected to continue to deepen the domestic LPG market, which has witnessed significant growth from about 50,000 tonnes/year in 2007 to about 1.5mn t/yr in 2023.

Since 2021, there has been a focus on natural gas as an automotive fuel, and the Presidential Compressed Natural Gas Initiative (PiCNG) established in 2023 has set a target of over 1mn new CNG-enabled vehicles and 55,000 CNG conversion kits for existing PMS-dependent vehicles by 2027. This has led to aggressive roll-out of CNG infrastructure in-country. A switch from the traditional automotive fuels (PMS and AGO) promises to help ordinary Nigerians absorb the shock of fuel subsidy removal, significantly reduce their energy costs, lower emissions from the automotive industry and increase domestic utilisation of Nigeria's vast gas resources.

These developments have catalysed the development of virtual pipelines conveying LPG, CNG and LNG to key markets that do not currently have pipeline infrastructure, and energy cost savings of up to 50% in some instances has brought about the revitalisation of several key industries across the country.

HOW IS NIGERIA BALANCING ITS DOMESTIC GAS UTILISATION STRATEGY WITH ITS EXPORT AMBITIONS, GIVEN THE RISE IN GLOBAL LNG DEMAND AND THE PUSH FOR ENERGY SECURITY?

In line with the PIA, the regulators implement an industry-wide domestic gas delivery obligation (DGDO) which imposes an obligation on gas producers to dedicate a percentage of produced volumes to the domestic market at regulated prices. The balance can be sold on a willing-buyer willing-seller basis to interested domestic or international off-takers. Annual DGDO obligations are calculated for all operators based on their production volumes and the projected demand in the domestic market, balancing domestic utilisation with export ambitions.

THE AJAOKUTA-KANO-KADUNA (AKK) PIPELINE AND OTHER MAJOR INFRASTRUCTURE PROJECTS ARE SEEN AS CRUCIAL FOR DOMESTIC GAS SUPPLY. WHAT IS THE CURRENT STATUS, AND ARE THERE ANY FINANCING OR REGULATORY BOTTLENECKS?

The 614 km 40" AKK and the 130 km 48/36" OB3 pipelines are two infrastructure projects critical to domestic gas supply in Nigeria. The projects are progressing steadily and stand at 75% and 98% completion respectively with no significant financing or regulatory issues given their prioritization by the Federal Government and NNPC Limited. However, the future view for major gas infrastructure is to attract public-private partnerships, which will reduce the financial burden on the government and encourage quick deployment of infrastructure to achieve its Decade of Gas aspirations.

NIGERIA HAS SIGNIFICANT FLARED GAS RESOURCES. WHAT PROGRESS HAS BEEN MADE IN CAPTURING AND COMMERCIALISING ASSOCIATED GAS THROUGH INITIATIVES LIKE THE NIGERIAN GAS FLARE COMMERCIALISATION PROGRAMME (NGFCP)?

The NGFCP is backed by law and expected to reduce flaring in Nigeria in line with the Global Gas Flaring Reduction Partnership principles for ending routine flaring globally by 2030. The Nigerian Upstream Petroleum Regulatory Commission (NUPRC) recently announced that 42 entities were deemed successful in the bid for 49 flare sites put forward during the 2022 NGFCP auction process. This NGFCP represents a significant gas monetisation opportunity and game changer for the domestic gas market.

WHAT ROLE DO PRIVATE INVESTORS AND INTERNATIONAL OIL COMPANIES (IOCS) PLAY IN NIGERIA'S GAS EXPANSION, AND WHAT POLICY SHIFTS COULD ENCOURAGE FURTHER INVESTMENTS?

Of recent, the international oil companies (IOCs) have shifted

focus to offshore assets, with attendant dilution or divestment of their erstwhile onshore interests which are in turn being acquired by private indigenous oil companies (PIOCs). Both sets of investors are critical to Nigeria's gas Decade of Gas aspirations, with the IOCs playing a greater role in upstream supply security and the PIOCs dominating investments in the midstream and downstream.

Nigeria's Decade of Gas is a driver for the necessary investment in the gas sector underpinned by policies aimed at improving the ease of doing business while encouraging greater market liberalisation, transparency, competitiveness which will attract the continued investments required to sustain the growth of the Nigerian gas industry, and by direct consequence, all the energy-dependent productive sectors of the economy.

MULTILATERAL LENDERS HAVE BEEN SHIFTING FOCUS AWAY FROM FOSSIL FUEL INVESTMENTS, INCLUDING GAS. HOW CAN NIGERIA AND OTHER AFRICAN NATIONS ATTRACT ALTERNATIVE FINANCING SOURCES TO SUSTAIN GAS DEVELOPMENT?

The increasing shift by lenders from fossil fuel investments is largely due to the ongoing transition to cleaner energy sources which has impacted the availability of funds for fossil fuel-related projects from traditional international lenders.

To attract available financing, Nigeria and other African countries must demonstrate commitment to sustainability, decarbonisation and responsible governance. The need for clear and concise national and regional energy transition plans with measurable and auditable indices and strategies to ensure compliance cannot be overemphasised.

However, the energy transition must be aligned with the developmental needs of countries in the global south to ensure it is just and equitable to all parties concerned. Nigeria and other African nations must mitigate the risks around access to financing by developing local, regional and continental financing capacity to meet their funding requirements. This will naturally come with higher costs

of borrowing but may represent a more enduring solution that will guarantee a just and balanced energy transition.

There will also need to be increased openness to more unconventional financing opportunities such as private equity, blended finance and domestic capital markets to bridge the predictable gap in conventional financing for fossil fuel projects.

"For Nigeria, 2025 marks the halfway point on the Decade of Gas journey, and WGC2025 is an important platform to inform the global community on the progress to date, and the significant opportunities for investment that continue to arise."

WHY IS WGC2025 A CRUCIAL CONFERENCE FOR STAKEHOLDERS IN THE NATURAL GAS INDUSTRY, AND WHAT KEY THEMES OR DISCUSSIONS DO YOU ANTICIPATE WILL SHAPE THE GLOBAL GAS AGENDA AT THE EVENT?

For Nigeria, 2025 marks the halfway point on the Decade of Gas journey, and *WGC2025* is an important platform to inform the global community on the progress to date, and the significant opportunities for investment that continue to arise.

The impact of recent global geo-political events and the definition of the role of natural gas within the frameworks of a just energy transition, climate change and energy security are topics that will likely shape many discussions at *WGC2025*.

Furthermore, I believe that there will be robust discussions on the unique viewpoints of the global south on the role of natural gas for energy security and industrialisation.

Akachukwu Adeyinka Nwokedi is currently the President of the Nigeria Gas Association and General Counsel and Company Secretary of Nigeria LNG Limited (NLNG). He will be speaking at the session "Gas in Africa: Natural Gas as An Ideal Choice" at 11:45 on May 22.



IPIECA: MAKING NATURAL GAS MORE SUSTAINABLE WITH ESG

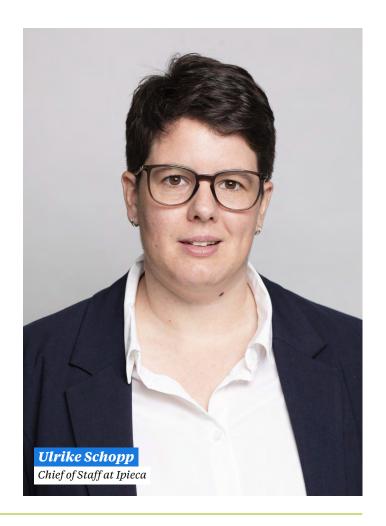
ULRIKE SCHOPP, CHIEF OF STAFF AT IPIECA, JOINS WGC2025 TO EXPLORE HOW NATURAL GAS AND ESG INITIATIVES CAN CONTRIBUTE TO ADVANCING THE ENERGY TRANSITION.

The WGC2025 Daily: What role does natural gas play in a decarbonising world, and how do ESG frameworks support this transition?

Ulrike Schopp: One of the most critical challenges facing the world is transforming the energy system to meet the needs of a growing global population while reducing greenhouse gas emissions.

As a dispatchable and lower-carbon energy source, natural gas will be a key part of the energy transition, especially when replacing coal. When produced with the lowest emissions along the full value chain, natural gas can significantly reduce greenhouse gas emissions, providing affordable and reliable energy while driving sustainable development. However, the positive impact of natural gas on decarbonisation is contingent upon controlling methane emissions throughout its production and distribution processes. Methane is a potent greenhouse gas, and its emissions must be minimised to ensure that natural gas remains a cleaner alternative to coal.

Detection and measurement are key issues for reducing methane emissions in the oil and gas industry which ESG frameworks can help to address. Aligning with oil and gas reporting standards can support companies to identify methane sources and estimate or quantify their emissions. Reporting not only helps you measure and therefore manage emissions from your own operations, sharing data as well as the work your company is doing to avoid and manage emissions can support wider industry efforts on reducing methane emissions.



How have ESG and regulations supported the sustainability of gas across different regions?

ESG policies can push companies to reduce emissions and increase investment in lower-carbon initiatives. Investors are also prioritising sustainable businesses with cleaner technologies and improved transparency.

How would you characterise progress towards a globally harmonised framework for measuring sustainability in the gas industry?

In addition to providing practical guidance on sustainability reporting, Ipieca monitors the complex, fast-evolving external sustainability disclosure landscape and engages with reporting frameworks, standards setters and regulators to keep its members informed and provide timely technical input on behalf of the industry.

Over the past few years, the number of reporting frameworks and standards has increased substantially. Ipieca, which has supported the industry in producing high-quality sustainability reports for over 20 years, has been invited to provide technical input and feedback to consultations on major initiatives such as the International Sustainability Standards Board and the European Financial Reporting Advisory Group. These standards underline the increased investor interest in sustainable businesses with low carbon technologies and improved transparency. Harmonisation of frameworks, or at least interoperability, is crucial as it helps to compare data across companies and industries, produces more reliable and consistent information, supports companies to align with sustainable business practices and reduces the reporting burden, which is important as it means that companies can use the freed-up time and resources to focus on driving sustainability across their operations and management systems.

Depending on the regions of the world, to what extent is progress on sustainability driven by ESG and to what extent by other policies and regulation?

Progress on sustainability really varies across different regions, and is driven by a mix of ESG frameworks, policies, stakeholder expectations and regulations.

ESG frameworks can be crucial because they can push companies to adopt sustainable practices by integrating environmental, social and governance considerations into their business strategies. This means for example reducing carbon footprints, improving community engagement and enhancing transparency.

Investors can also play a big role here, as they increasingly demand that companies show their commitment to sustainability,

which influences corporate behaviour, especially in regions with strong financial markets. When we look at regional differences, regions like Europe and North America often see progress driven by a combination of ESG frameworks, robust government policies and company action. In contrast, developing regions may rely more heavily on government policies and international aid to drive sustainability. ESG frameworks are gradually gaining traction there, but regulatory support remains crucial.

Collaborative efforts are also key. Public-private partnerships, for example, combine the strengths of both sectors to create more effective solutions. Industry associations like Ipieca facilitate collaboration, share knowledge, and develop industry-wide standards and best practices, supporting sustainability efforts globally.

Overall, the interplay between ESG frameworks, policies, and regulations is essential for driving sustainability progress worldwide. While the balance between these drivers varies by region, their combined impact is crucial for achieving global sustainability goals.

How do ESG policies incentivise investments in carbon capture, hydrogen and other low-carbon technologies in the gas sector?

ESG policies can be important for encouraging investments in carbon capture, hydrogen and other low-carbon technologies. These technologies are key for reducing emissions, especially in the so-called hard(er) to abate sectors like heavy industry and transportation.

The oil and gas industry has an important role to play in the transition to net-zero emissions because of its infrastructure, expertise, capacity for innovation and ability to attract investment in large-scale projects. Industry leaders are already involved in carbon capture and storage (CCS), hydrogen, biofuels, wind and solar, with significant capital investment commitments to grow their low-carbon businesses.

As highlighted by Ipieca's <u>Net-zero awareness brief</u>, these technologies are included in multiple science-based pathways to net-zero. So, we know these technologies are viable; now it's about scaling them up.

ESG policies can help in several ways. They encourage financial institutions to invest in sustainable projects, including carbon capture and hydrogen. This can be seen in various classifications and incentives that direct investments towards low-carbon technologies. For example, government policies like the U.S. Inflation Reduction Act provide incentives that accelerate activities in the United States, helping to build new markets for these technologies.

Additionally, ESG policies can help companies align with regulatory standards, which makes it easier to secure funding and support for low-carbon projects. This alignment reduces risk for investors and boosts confidence in these solutions.

Lastly, ESG policies support initiatives that combine public and private funding to reduce investment risks and help scale up these projects.

How are gas companies addressing Scope 3 emissions in their ESG reporting, and what regulatory pressures exist in this area?

While I can't comment on individual companies nor regulations relating to this, I can say that Ipieca is working with its members and key stakeholders to support the industry to decarbonise its own operations and supply lower-carbon energy products to customers around the world.

As a membership association representing about 60% of hydrocarbon production, we have huge reach. We leverage this for example to raise awareness of, support for and participation in key methane related initiatives.

Currently more than three-quarters of our members have netzero aspirations and almost 20% include Scope 3 emissions in their aspirations. Scope 3 is an area Ipieca works on and at present we are updating the <u>Overview of methodologies</u> document developed in 2016. The aim of the 2016 overview of methodologies is to provide information on approaches used by oil and gas companies to estimate and account for Scope 3 greenhouse gas emissions.

We're also one of the few global oil and gas associations whose membership covers upstream, midstream and downstream. We understand the importance of supply chains to the industry and promote the integration of environmentally and socially responsible practices across the entire oil and gas supply chain – you can find out more about our work and resources to support sustainable supply chains here.

How are financial institutions and investors driving ESG compliance in the gas industry, and what impact does this have on capital allocation?

There is of course a clear business case for sustainability reporting, with lots of analysis showing that good sustainability performance can enhance financial performance and indeed access to capital. As well as financial, sustainability reporting is good business for lots of other reasons: transparency can help to improve climate, environmental and social performance, enhances stakeholder engagement and clarifies business purpose, all of which may positively impact a company's bottom line.

How does Ipieca support the increased sustainability of gas?

We're doing this in three main ways: guidance to support operational performance; supporting data and reporting; and through our convening power.

A few of the flagship guidance we have developed to support the sustainability of gas include:

- Recommended practices for methane emissions detection and quantification technologies upstream
- Flaring management guidance for the oil and gas industry

For data and reporting, our <u>Sustainability reporting for the oil and gas industry</u> can help companies to capture data on how they are managing and mitigating methane emissions. Its climate change and energy module provides guidance on how to assess, prioritise and manage methane risks and impacts and includes an indicator on methane emissions describing what should be included in your reports as core elements and potential additional elements.

As a membership association representing about 60% of hydro-carbon production, we have huge reach. We leverage this for example to raise awareness of, support for and participation in key methane related initiatives including the Methane Guiding Principles, the World Bank Zero Routine Flaring initiative; OGCI's Aiming for Zero Methane Emissions and the Oil and Gas Decarbonisation Charter (OGDC).

What key discussions do you look forward to seeing taking shape at WGC2025?

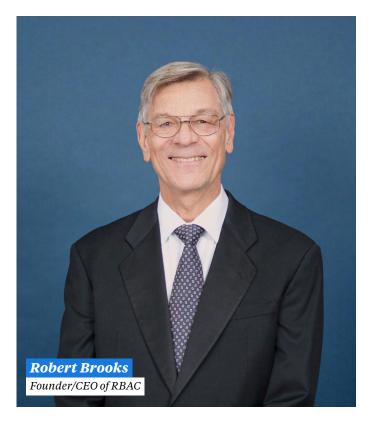
I couldn't wait for *WGC2025*. The speaker lineup is incredible, with some of the biggest names from across the energy industry coming to Beijing. I'm also very thankful to the organizers for inviting me to moderate the session on How ESG Regulations and Policies Guide the Sustainability of the Gas Industry. I'm really looking forward to discussing with energy leaders about their perspectives. It's a fantastic lineup of experts. There's a lot happening throughout the week, and I'll be doing my best to attend as many of the plenary sessions as possible, especially those focused on sustainability and the energy transition.

ABOUT IPIECA

Ipieca is the global oil and gas association dedicated to advancing environmental and social performance across the energy transition. It brings together members and stakeholders to lead in integrating sustainability by advancing climate action, environmental responsibility and social performance across oil, gas and renewables activities. Ipieca was founded at the request of the United Nations Environment Programme in 1974. Through its non-lobby and collaborative approach Ipieca remains the industry's principal channel of engagement with the UN.

GREEN GASES GET A REALITY CHECK WHILE LNG OVERSUPPLY MAY HAVE A SILVER LINING: RBAC

ROBERT BROOKS, FOUNDER AND CEO OF RBAC, DISCUSSES GREEN GASES AND THE ENTHUSIASM SURROUNDING THEM VERSUS THE REALITY, AS WELL AS THE GLOBAL LNG OUTLOOK, AND HOW THE EXPECTED SHORT-TERM LNG OVERSUPPLY CAN LIFT DEVELOPING WORLD ECONOMICS.



Green gas development has disappointed many proponents with growth remaining sluggish across Europe, the Americas and other regions. Proposed hydrogen projects have advanced unevenly and are failing to live up to expectations, according to Robert Brooks, Founder and CEO of RBAC, a premier developer of global and regional gas and LNG market simulation systems. In an interview with the *WGC2025 Daily*, Dr. Brooks noted that the role and potential of green gases is undergoing pragmatic reassessment, while also discussing the global LNG outlook.

In Europe, some initiatives are moving forward, such as German gas grid operator Gascade starting to fill a repurposed natural gas pipeline with hydrogen in mid-March, and an agreement earlier in the year between German energy firm SEFE to purchase green ammonia – a hydrogen carrier – from a site under development in the futuristic NEOM city across the Gulf of Aqaba from Sinai. However, these gains are offset by setbacks. "We also read stories of hydrogen projects cancelled due to lack of demand," he said.

Global green hydrogen production remains negligible, despite some lofty targets like those set out in the EU's 2020 hydrogen strategy. Biomethane is far more established, and reached 9.5 bcm in 2023, according to Cedigaz, with growth particularly strong in Europe. But this volume still pales in comparison to 4,239 bcm, the amount of natural gas that the world consumed in the same year.

Despite the excitement surrounding green gases in recent years, the industry has gotten a reality check in these project setbacks. Dr. Brooks notes a recent Substack column by US political scientist Roger Pielke, who wrote that the world seemed to be entering a new "Era of Energy Realism," citing growing political recognition that renewables had made limited progress in supplanting fossil fuels over recent decades, despite receiving trillions of dollars of investment.

GREEN GASES STRUGGLE WITH COMPETITIVENESS

Biomethane plays a niche role in the broader natural gas market due to limited availability of feedstocks and scale, Brooks said. "There's only so much landfill gas and farm waste you can collect, and to be honest, it's very modest compared to the size of the natural gas market. It does contribute, albeit on a small scale, to improving the environment and makes some money for the farmers, so it will probably continue. But these factors and its cost limit its growth."

Hydrogen, promoted as a cleaner means of electricity generation, is similarly constrained by high production costs. "It has to be produced from water using electrolysis or from natural gas using steam methane reforming (SMR) or other methods. These are very expensive processes compared with producing natural gas from underground deposits," he said. The cost of 'green' hydrogen via electrolysis is "especially expensive," while 'blue' hydrogen derived from natural gas is more economical but creates CO_2 emissions that require permanent storage in underground caverns.

The US has an advantage due to its large-scale natural gas production and plentiful ${\rm CO_2}$ storage capacity. "The EU doesn't have either. So Europe focuses majorly on 'green' rather than 'blue' hydrogen solutions," he said.

Hydrogen transport presents further challenges. Pipeline transport is costly, requiring high energy input to compress hydrogen. "And it is way too expensive to liquefy hydrogen and transport it by sea to other countries and continents," Dr. Brooks said.

Consequently, ammonia has been suggested as an alternative hydrogen carrier, as it can be liquefied, stored and transported much less expensively. But this approach adds complexity and cost. "The idea is to add one more step to the hydrogen production process: combining it with nitrogen to make ammonia, then storing or transporting it, then "cracking" (dissociating) the ammonia into hydrogen and nitrogen nearby the site where the hydrogen is going to be used. It's physically and chemically feasible but it also adds a lot of cost to the overall supply chain," Brooks explained.

The idea of carbon markets has been tried in the US, Europe, and elsewhere but hasn't proven particularly effective thus far.

Both biomethane and hydrogen remain economically uncompetitive against legacy natural gas, Brooks said. One proposal has been to "level the playing field" by applying a carbon price to natural gas combustion because it emits CO_2 . Biomethane, produced from natural processes, would be exempt, while hydrogen, even though its combustion does not produce CO_2 , may not be exempt if its production causes emissions.

The difficulty lies in setting a politically and economically acceptable carbon price. "The idea of carbon markets has been tried in the US, Europe, and elsewhere but hasn't proven particularly effective thus far," Brooks said.







"The global gas and LNG industry has a unique opportunity in the history of the world to make a 'sea change' by providing affordable energy to countries and areas which could help propel them 'over the hump' of endemic poverty into economic viability."

Furthermore, hydrogen costs so much more to produce than natural gas, that natural gas would have to be penalised heavily to make hydrogen competitive, he explained. But this would render any products produced from hydrogen and natural gas uncompetitive on the world market.

"This is what Europe is facing now. They've lost market share in industrial sectors that they used to dominate because their costs have risen due to higher energy costs," he said.

Some argue that scaling up hydrogen markets will reduce unit costs, but Brooks remains sceptical. "Unless new technical advancements change the equations, advances will be tough. And it's not clear how much costs could come down and whether Europe or elsewhere will be willing to sacrifice their industry in the time period until such lower costs will possibly arrive."

LNG OVERSUPPLY CAN HELP DEVELOPING WORLD ADVANCE

Looking at the global LNG market outlook, Brooks argued that the anticipated oversupply period could help developing nations advance economically. "The global gas and LNG industry has a unique opportunity in the history of the world to make a 'sea change' by providing affordable energy to countries and areas which could help propel them 'over the hump' of endemic poverty into economic viability."

Lower gas prices stemming from temporary oversupply could allow these countries to develop enough wealth to later absorb higher energy costs. "We could have an upward spiral of economic growth and prosperity for a large part of the world that has been left

behind prior to this time."

The recent announcement at CERAWeek of the "Energy Corps" idea of Scott Tinker and Toby Rice aligns with this concept.

While acknowledging that the energy sector is not tasked with delivering economic welfare, Brooks said that such outcomes could occur as a by-product of market dynamics. "During this potential 'oversupply' period, energy providers will be forced to become even more cost sensitive while still being able to make a profit. If investors are willing to operate in such an environment, they could help contribute to the creation of higher economic prosperity for a large part of the world. I think it would be worthwhile to do so."

Meanwhile, the US LNG industry is set to gain from recent policy changes. "We've already seen action by the new White House administration to get rid of restraints on LNG as well as drilling imposed during the previous administration," he said. Multiple projects are now competing for investment. "Some will be built, some will not."

Established players likely benefited from the Biden administration's pause on new LNG export approvals. "Incumbents like Cheniere were likely quite pleased by the Biden administration's pause since it gave them an advantage over potential newcomers," he said. Additionally, the pause may have tempered the projected LNG oversupply expected later this decade, propping up prices somewhat.

However, government policy alone cannot determine project success. "New projects have to win investor confidence in order to be built. They have to offer a good chance for a decent return or they will not get funded," Brooks said.

Increasingly, newbuild projects must compete with existing ones with expansion plans. "Who would you rather invest your money with: a newcomer with a bright idea or an incumbent with a proven track record?" he posited.

Robert Brooks, founder and CEO of RBAC, will be speaking at the session Green Gases in the Infrastructure - What is Needed to Get It Flowing at 09:15 on May 21.











JOIN THE PREMIER GLOBAL LNG EVENT

Leading LNG: Powering Today and Tomorrow

The LNG2026 Conference Programme features dynamic Plenary sessions, engaging Spotlight sessions, and a comprehensive Technical Programme. Explore cutting-edge topics and innovations in the LNG sector, facilitated by industry leaders. Join us to gain valuable insights, connect with peers and discover the future of the LNG industry.

LNG2026 Expected Numbers

16,000

Trade Visitors

4,000

Conference Delegates

300

Exhibitors

35,000 sqm

Exhibition Space



COLLABORATING TOWARDS DECARBONISATION: OGCI & OGDC



THE OIL AND GAS CLIMATE INITIATIVE (OGCI) HAS MADE SIGNIFICANT PROGRESS IN DRIVING REDUCTIONS IN METHANE AND OTHER EMISSIONS, WHILE HELPING TO ADVANCE LOW-CARBON TECHNOLOGIES, IT IS NOW LEVERAGING THAT EXPERIENCE TO ACHIEVE AN EVEN GREATER GLOBAL IMPACT THROUGH THE OIL & GAS **DECARBONIZATION CHARTER** (OGDC), JULIEN PEREZ, THE MANAGING DIRECTOR OF BOTH ORGANISATIONS, TOLD THE WGC2025 DAILY.

The Oil and Gas Climate Initiative (OGCI), launched in 2014 by 12 of the world's largest oil and gas producers, aims to accelerate climate action across the industry by fostering collaboration. Since its inception, member companies have collectively invested more than \$100bn in low-carbon solutions, more than halved their upstream methane emissions and routine flaring, and cut carbon intensity by over 20%.

At the COP28 conference in Dubai in late 2023, OGCI supported the creation of the broader Oil & Gas Decarbonization Charter (OGDC), led by the conference presidency. The Charter now counts over 55 signatories, with OGCI serving as its first secretariat, sharing a decade's worth of learnings to help drive faster emissions reductions globally.

"OGCI's objective is to create a catalyst across the oil and gas industry to accelerate climate action by sharing best practices, undertaking joint commitments, funding and projects, and also supporting low-carbon technology solutions," Julien Perez, Managing Director of both OGCI and OGDC, told the WGC2025 Daily.

A DECADE OF PROGRESS AND LEARNING

In 2017, OGCI established the Climate Investment firm, a separate entity which has since backed dozens of companies developing innovations in methane monitoring and reduction, energy efficiency, carbon capture, utilisation and storage (CCUS), and low-carbon mobility. OGCI has also collaborated with numerous NGOs and international organisations, such as with the Environmental Defense Fund (EDF) and the United Nations Environment Programme (UNEP) to test these technologies and encourage their adoption beyond its member base, or with the World Bank to launch the GFMR fund aiming to support methane abatement.

Methane reduction remains a priority. In 2018, OGCI set a collective goal to reduce upstream methane intensity to 0.25% by 2025. This target was later revised to "well below 0.20%" by 2025 after achieving the initial goal ahead of schedule. And by 2023, OGCI members achieved an intensity of only 0.14%.

In March 2022, it also launched the Aiming for Zero Methane Emissions Initiative, targeting the elimination of methane emissions from the oil and gas sector by 2030. The initiative has since gained the endorsement of nearly 100 companies and organisations, drawing support not only from operators but also from major service and technology providers.

"The idea was to get the whole value chain in the mindset that methane emissions should be treated as seriously as oil spills or safety incidents, where the industry already has a gold standard. A zero-tolerance approach," Perez said.

Changing that mindset requires a comprehensive approach. "When you start to change the mindset, you create a cascade of changes – in training, in capital expenditure allocation, in operational practices," he added.



In 2018, OGCI set a collective goal to reduce upstream methane intensity to 0.25% by 2025. This target was later revised to "well below 0.20%" by 2025 after achieving the initial goal ahead of schedule. And by 2023, OGCI members achieved an intensity of only 0.14%.

OGCI has long supported improved methane detection practices in various countries, leveraging satellite data to alert participating operators to significant emissions events so they can respond promptly. While not a lobbying body, OGCI does issue general policy recommendations, advocating for a technology-neutral framework that fosters innovation and supports transparent measurement, reporting and verification (MRV) systems.

"We know what works thanks to our experience, so this helps the policymaker put in place regulation that is efficient," Perez said.

OGCI is applying a similar strategy to other low-carbon solutions, including CCUS. In 2019, it launched the CCUS Kickstarter Initiative to enable large-scale, commercially viable projects capable of cutting emissions across hard-to-abate sectors. From just five projects initially, OGCI members are now involved in more than 40 CCUS hubs worldwide, with the potential to collectively abate or remove up to 400mn tonnes of $\rm CO_2$ annually by 2030. OGCI has also contributed to the development of a Global $\rm CO_2$ Storage Resource Catalogue, drawing on industry expertise to map global $\rm CO_2$ storage capacity.

As with methane emissions, OGCI takes a "pragmatic, action-oriented and result-oriented approach" with CCUS, Perez said. "It's about seeing what recipes work and replicating them across the world."

TAKING COLLABORATION INDUSTRY-WIDE

The group's experience is now feeding into OGDC, whose over 55 signatories operate in more than 100 countries, encompassing some 6,000 oil and gas fields and accounting for $\sim 45\%$ of global oil production, and nearly 39% of global oil and gas production. Many members are national oil companies (NOCs), some participating in international climate efforts for the first time.

"We know how to run this kind of coalition," Perez said. "We're replicating OGCI's best practices through OGDC. These are different organisations, with different governance structures, but with a strong connection and shared mission."

Since its launch, OGDC has focused on operationalising its Charter by helping members accelerate emissions reductions. This includes addressing data and transparency gaps, particularly among NOCs that face domestic regulatory constraints, and building trust around data sharing. Once consistency is also achieved, key performance indicators can be refined to track progress.

Collaboration – whether through shared data, best practices, expertise and technologies, or joint financing of projects and innovations – will be essential for achieving impactful and cost-effective decarbonisation, Perez said. OGDC, like OGCI, is designed to facilitate that process.

"If we manage to get all theose 55+ companies in OGDC making progress at the same speed as OGCI companies, the size of the prize is absolutely astonishing," he said. "This can be one of the quickest ways to remove greenhouse gas emissions from the atmosphere."

BROADER CHALLENGES IN TRANSITION

Looking ahead to *WGC2025*, Perez said the energy transition is evolving in scale and complexity, bringing new financial and economic challenges. Successful strategies in one area must be applied to others where progress has lagged.

"There's no silver bullet. We must focus on solutions that make sense – put them on the marginal abatement cost curve, identify the business model and scale quickly."

"Solar succeeded because the direction was very clear – lower the cost and scale up. We need to do the same for CCUS and hydrogen."

He continued: "There's no silver bullet. We must focus on solutions that make sense – put them on the marginal abatement cost curve, identify the business model and scale quickly."

Over time, economies of scale will kick in as technologies like CCUS are deployed more frequently, and as costs fall, the pace at which it scales up will accelerate.

Amid rising energy demand, the energy industry still faces the enduring trilemma of delivering energy that is sustainable, affordable and reliable, and balancing these three priorities will remain key.

"While Europe and the US have made significant progress on sustainability, there is still much to do in emerging economies," Perez said. "OGDC is a channel to replicate and apply what works in a very efficient manner."

There is broad consensus that natural gas will play a pivotal role in the energy transition. "So it's even more important to address methane emissions, to make sure that natural gas is as climate-efficient as possible," he said. "It's up to us to show the way – by continuing to set ambitious targets, increase transparency and invest in low-carbon technologies," he concluded. "We need to continue demonstrating that decarbonisation is possible and profitable."

Julien Perez, Managing Director of OGCI and OGDC, will be speaking at the session "Natural Gas + CCS/CCU" as a Feasible Solution to Achieving Decarbonisation Goals at 11:45 on May 21.



NATURAL GAS: BACKBONE OF EGYPT'S ECONOMY

NATURAL GAS MEETS MORE THAN 60% OF EGYPT'S ENERGY NEEDS, PLAYING A KEY ROLE IN POWER GENERATION, INDUSTRY, TRANSPORTATION, COOKING, HEATING, AND DISTRICT COOLING. THE COUNTRY IS **WORKING TO STRENGTHEN** SUPPLY, IMPROVE EFFICIENCY, AND EXPAND ITS ROLE AS A GAS HUB TO ENHANCE **ENERGY SECURITY, KHALED** ABUBAKR, CHAIRMAN OF TAQA ARABIA AND THE EGYPTIAN GAS ASSOCIATION, TOLD WGC2025 DAILY.

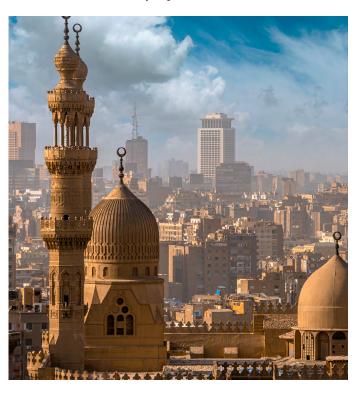


Natural gas has long dominated Egypt's energy mix, lowering power sector emissions by replacing imported fuel oil, driving industrial growth, expanding affordable energy access and generating revenue from LNG exports. However, fast population growth and surging energy demand in recent years have posed difficulties for the country's energy security. To address this challenge, the government is encouraging increased offshore gas development and working to enlarge the country's role as a regional gas hub, having begun receiving Israeli gas five years ago and expected to do the same in the future with Cypriot gas. This strategy should ensure natural gas remains central to Egypt's energy landscape for decades, Khaled AbuBakr, Chairman of TAQA Arabia and the Egyptian Gas Association, told *WGC2025 Daily*.

Today, natural gas supplies over 60% of Egypt's energy needs, including more than 80% of power generation. Around 85mn of the country's 115mn people rely on gas daily for power generation, cooking and heating, and it also performs many other critical roles, from serving as feedstock for petrochemicals and fertiliser production to providing stable power for energy-intensive industries, district cooling and water desalination.

"Natural gas is integral to the Egyptian economy – whether in power generation, fertilisers or other sectors," AbuBakr said. "Fertilisers, for example, support agriculture, which in turn supports food production. It is the start of the value chain for many parts of the economy."

Egypt produced 57.1bn m^3 of gas in 2023 and consumed 60bn m^3 , with the shortfall covered by imports.



THE GAS STORY SO FAR

Egypt's gas industry dates back to the 1967 discovery of the Abu Madi field in the Nile Delta, followed by other major finds in the Nile Delta and in the Mediterranean. By the 1990s, gas became a central part of the energy mix, with production increasing and domestic pipeline networks expanding.

"Natural gas is integral to the Egyptian economy – whether in power generation, fertilisers or other sectors."

The shift accelerated in the 2000s, when gas overtook fuel oil as the primary fuel for power generation and industry. LNG exports began in 2005 via the 7.2mn tonne-per-year Idku and 5mn tpy Damietta terminals, creating a valuable export revenue stream. By the early 2010s, gas accounted for over half of Egypt's total energy consumption.

However, fast economic growth that followed the 2011-14 Egyptian Crisis led to supply shortages, forcing the country to curb gas consumption and halt LNG exports. Fortunately, the 2015 discovery and subsequent development of the Zohr field in the deepwater Mediterranean reversed years of production decline, restoring Egypt's gas balance and enabling LNG exports to resume.

Recognising Zohr and other new fields were not enough to meet its expanding energy needs, Egypt started importing gas from the Leviathan field via the EMG pipeline in early 2020 then additionally via Jordan in 2023. However, supply constraints and heatwaves triggered power shortages in summer 2023, worsening the following summer. LNG exports were suspended, and Egypt began importing LNG last year using FSRUs.

"Over the past four years, energy demand has surged – electricity consumption alone rose by 19% between summer 2023 and summer 2024, straining gas supply," AbuBakr said.

Population growth has driven further demand in recent years, with cities expanding to accommodate new housing and infrastructure.

RESOLVING DIFFICULTIES

Despite challenges, Egypt's gas prospects remain strong, with government and industry working to enhance energy security, AbuBakr said. Authorities are taking steps to encourage increased upstream activity to offset declines at mature fields, offering more attractive terms in the past year to major international oil companies. These efforts have yielded success, as evidenced by ExxonMobil's Nefertari-1 gas discovery in January in Egypt's underexplored western Mediterranean. ExxonMobil plans two more exploration wells in 2026.

The government has also introduced different contractual terms to encourage smaller players and service companies to develop

more marginal fields.

"We've seen a rapid government response to restore production and meet demand," AbuBakr said. "Policy shifts over the past year are delivering fast results."

WGC2025 will be a critical event for the global gas industry, AbuBakr said. The world is at a crossroads in the energy transition, and uncertainty remains over its scale, pace and economic viability.

Another key development came in February when Egypt and Cyprus signed host government agreements to transport Cypriot gas via pipeline to Egypt. Gas from Eni and TotalEnergies' Cronos field is expected to be processed at Zohr facilities and liquefied at Damietta for export to Europe. Chevron, NewMed Energy, and Shell will also send gas from the Aphrodite field to Egypt for processing and export.

The possibility of importing Cypriot gas had been under discussion for years, AbuBakr said, as part of Cairo's broader goal to become a Mediterranean energy hub, similar to its role in global trade via the Suez Canal. While initial efforts focused on Israeli gas, recent shortages accelerated progress on Cypriot imports.

"By taking a more proactive approach toward Cyprus, Egypt is expanding its role as a gas hub," AbuBakr said. "This supports domestic needs while allowing some supply to be redirected to Europe."

However, further work is needed before gas begins flowing, including feasibility studies and final investment decisions, he said. Cypriot officials expect gas from Cronos by 2026 or 2027, while NewMed Energy anticipates production at Aphrodite will start in 2031.

In the meantime, Egypt is advancing energy efficiency programmes to curb consumption while working to boost production in the medium to long term. While major fields will take years to develop, smaller fields deemed uneconomic by large firms could be brought online by smaller players within months.

Given supply uncertainty, Egypt is avoiding long-term LNG import commitments, as demand may shift in the short term.

AbuBakr added that Egypt could establish an LNG bunkering hub within two years, leveraging the Suez Canal's strategic position.

A BACKBONE FOR YEARS TO COME

Natural gas will "remain the backbone of Egypt's energy sector for decades," AbuBakr said, as it provides a clean, affordable and secure energy source. It will also support Egypt's rapid expansion of solar and wind power by stabilising the grid and offsetting renewable intermittency. The government aims for renewables to account for more than 40% of the power mix by 2030, targeting 14 GW of wind and 8.5 GW of solar capacity. By 2040, wind capacity is expected to reach 40 GW, with solar rising to 25 GW.

While Egypt and other developing nations are expanding the role of gas in their economies, some international banks and other financial institutions are hesitant to finance oil and gas projects due to climate policies. While this has hindered investment in parts of sub-Saharan Africa, Egypt has not faced financing challenges, as international oil companies continue to invest, and the necessary infrastructure to support projects is already in place, AbuBakr said.

"I share the sentiment of many Africans who argue that we were not responsible for global pollution over the last century, and even today, Africa accounts for less than 3% of emissions," AbuBakr said. "Now that we have discovered natural gas – a cleaner alternative to fuel oil and coal – of course we want to use it."

Egypt's gas industry benefits from strong government support, he added.

WGC2025 will be a critical event for the global gas industry, AbuBakr said. The world is at a crossroads in the energy transition, and uncertainty remains over its scale, pace and economic viability. While the gas industry understands its role, global discussions on energy transition vary significantly, depending on economic conditions. The conference will provide a platform for structured debate on balancing energy security, affordability and transition goals, he said.



The conference's location in Beijing is also significant, he said. As one of the largest energy consumers and a key player in the shift from coal to gas, China serves as an important model. It imports gas from major suppliers like Russia, Qatar and the US, making it central to global gas trade. The event will bring together stakeholders from Southeast Asia, Australia, and other industrialised and emerging markets, representing a significant share of global energy demand.

"These discussions will be crucial in shaping the future role of natural gas in the global energy mix," AbuBakr said.

Khaled AbuBakr is Chairman & Founder of TAQA Arabia, Chairman of the Egyptian Gas Association and Regional Coordinator for the IGU. He will be speaking at the session "Gas in Africa: Natural Gas as An Ideal Choice" at 11:45 on May 22.

THANK YOU TO OUR SPONSORS

HOST SPONSORS







PRINCIPAL



VENTURE GLOBAL

GLOBAL





DIAMOND







PLATINUM







GOLD







BRONZE



ASSOCIATE









PRODUCT



Official Designated Beer for WGC2025