IGUA-SA

Industrial Gas Users Association - Southern Africa

Annual Report 2024

Industrial Gas Users' Association Southern Africa

IGUA-SA.ORG

MEMBERS

IGUA-SA membership continues to grow. Current members and program participants at the time of writing include:

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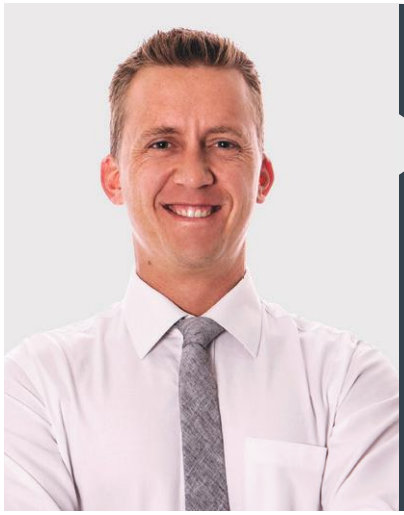
MESSAGE FROM THE CHAIRPERSON



"South African industrial gas users directly employ ±70,000 people and contribute between R300 billion and R500 billion annually to the South African economy. A cessation in the gas supply will result in multiple plant closures and a significant reduction in manufacturing output across KwaZulu-Natal, Gauteng, and Mpumalanga."

THOMAS SHAW

IGUA-SA Chairperson

The IGUA-SA 2024 report comes at a critical juncture in South Africa's energy landscape, as the country faces a gas cliff that will suspend gas supply to large industrial gas consumers from June 2026 onwards.

Several key manufacturers, supporting tens of thousands of jobs, are deeply reliant on gas energy for their continued operations. These industries span multiple economic sectors, including chemicals, steel, glass, food and beverages, in Gauteng, Free State, KwaZulu-Natal, and Mpumalanga.

South African industrial gas users directly employ ±70,000 people and contribute between R300 billion and R500 billion annually to the South African economy. A cessation in the gas supply will result in multiple plant closures and a significant reduction in manufacturing output across KwaZulu-Natal, Gauteng, and Mpumalanga.

Gas-energy security is crucial for South African economic development. The unilateral decision by Sasol in August 2023 to cut off gas supply from June 2026 poses an existential risk to large industrial gas users and is likely to lead to the deindustrialisation of the South African economy. Many industries have already been forced to halt investment and growth plans due to the risk of a gas-energy shortage.

There are no confirmed supply solutions that will come online early enough to serve as a sufficient independent supply source, raising the prospect of devastating consequences for the economy and jobs. As it stands, there is a 12- to 18-month gap between day zero, when Sasol's supply is suspended, and the finalisation of any feasible replacement supply. Accordingly, there is a critical period during which energy supply will be unable to support South African manufacturing activity.

Since it is not feasible for the industry to singlehandedly invest in and develop national-scale private natural-gas infrastructure (including bulk pipelines, LNG port terminals, and regasification terminals), urgent action is required on the part of the South African Government to adequately address this crisis. Despite active engagement, the government has not yet provided practical and implementable solutions.

The gas energy security risk for the South African economy can be mitigated through the following interventions, with urgent and focused coordination between business and government:

1. The South African Government, in line with its existing policies, should urgently establish **sufficient gas-to-power capacity on the Rompco pipeline to increase the demand for gas energy by 40-60PJ/a,** rendering gas-receiving infrastructure investment in Matola, Mozambique, economically feasible.

2. **Eskom, as part of its short-term power-purchase programme to increase power availability, should procure additional electricity from planned gas-to-power developments in Mozambique**, thereby making gas-receiving infrastructure investment in Matola economically feasible through increased gas volume throughputs.

3. The South African Government should ensure that the **Rompco and Lily pipelines are linked** before 2026 to provide gas energy security for KwaZulu-Natal.

4. The **South African Government should provide financial instruments to underwrite the residual risk** of the investment in gas-receiving infrastructure in Matola, ensuring the economic sustainability of the South African manufacturing sector.

5. **Sasol should embark on a reasonable phased reduction of supply**, which could be gradually offset by increased reliance on other sources instead of a unilaterally imposed hard cut-off.

Besides the significant risk to the country's manufacturing capacity, some 400 smaller to medium-sized businesses, several hospitals, and approximately 8,000 households will also be directly impacted by a suspension in gas supply.

Where possible, businesses will be forced to switch to more expensive and environmentally damaging fuels, impacting consumer pricing and carbon emissions. In many cases, however, fuel-source substitution will not be economically or practically feasible.

The knock-on impact will be acutely felt by all South African consumers through supply shortages and price increases across the steel, aluminium, mining, agricultural, paper, glass, ceramics, construction, automotive, and food and beverage sectors. The gas cliff will also pose a threat to South Africa's regional competitiveness and balance of payments.

Industrial gas users and the private sector need to assume a commanding position to ensure the viable security of the gas energy supply.

IGUA-SA has invested considerable resources over the last six months to develop mitigating strategies for the gas energy security risk faced by its members. The strategy likely to be implemented by IGUA-SA's members in the coming year will provide a newly established market structure for gas trading in South Africa, as the industry considers forming a private sector-led gas aggregator company.

As such, IGUA-SA will revisit its conventional mandate in the coming months to ensure that its members take a commanding and consolidated market position, focusing on gas energy demand aggregation to provide the required outcomes on gas energy security.

We hope that the government can collaborate with industry to proactively and efficiently unlock the required infrastructure developments to facilitate future gas flows and transactions. We em-phasise the critical importance of focus and close collaboration among key stakeholders to find a timely solution for the country's benefit.

As in previous years, IGUA-SA had the privilege to engage with multiple stakeholders throughout the year and presented its views across various forums and platforms. Stakeholder engagements are a continuous part of IGUA-SA's work, serving both as a platform for learning and sharing information. These engagements ranged from Government Departments (Minerals and Energy, Trade, Industry and Competition, National Energy Regulator of South Africa, Central Energy Fund, CSIR, Transnet) to social partners (NEDLAC, BUSA, NEPAD) and business (global oil and gas majors, financial institutions, leading legal firms, large energy users and suppliers). I would like to thank these stakeholders for their interest in working alongside IGUA-SA to find progressive and practical solutions to the challenges faced in the gas energy sector.

I conclude by acknowledging the significant work completed over a relatively short period, establishing IGUA-SA as a credible, objective, and fact-based advocacy group. This achievement would not have been possible without the tireless efforts of Mr. Jaco Human in advancing our association's mandate, his thought leadership, and his role in implementing various strategies. I also thank my fellow Exco members for their ongoing support, and all our member organisations for their active participation, both financially and otherwise, in the work of IGUA-SA. The cooperation between our members in the work we do and the efficient way we reach decisions to advance our mandate is commendable.

Together with all IGUA-SA members and stakeholders, I look forward to an exciting new year within a rapidly changing energy environment that will undoubtedly challenge existing norms and bring out the best for South Africa.

Thomas Shaw
IGUA-SA Chairperson

MESSAGE FROM THE EXECUTIVE OFFICER

"The central purpose of IGUA-SA is to ensure the efficient availability of hydrocarbon gas in Southern Africa to meet significant and growing demand by organisations requiring more gas to expand their operations and those intending to switch to gas from alternative energy sources that are more costly and/or harmful to the environment."

JACO HUMAN

Executive Offer, IGUA-SA

It is my privilege to present the annual report for IGUA-SA for the year 2024. This year has brought unique challenges, most notably the looming "gas cliff," which poses significant risks to our industry and the broader South African economy. However, with every challenge comes an opportunity for innovation and growth. In this message, I will address the key challenges we face and outline strategic solutions to ensure the resilience and sustainability of our gas market.

The gas cliff presents a formidable challenge, but it also offers an opportunity to transform and strengthen South Africa's gas market. By diversifying our supply sources, investing in infrastructure, advocating for regulatory reforms, embracing innovation, and prioritising sustainability, we can overcome this challenge and ensure a resilient and sustainable future for the gas industry.

UNDERSTANDING THE GAS CLIFF

The term "gas cliff" refers to the anticipated sharp decline in gas supply from Mozambique's Pande and Temane fields, expected to be depleted in the coming years. This decline threatens to disrupt the supply of natural gas to South Africa, impacting industries that rely heavily on this energy source. The consequences of a sudden supply shortfall are profound, ranging from increased energy costs to potential job losses and economic instability.

KEY CHALLENGES TO OVERCOME

› Supply Shortages:
The impending depletion of gas fields in Mozambique highlights our vulnerability due to over-reliance on a single source. The risk of supply disruptions necessitates urgent action to secure alternative sources.

› Infrastructure Limitations:
South Africa's gas infrastructure, including pipelines and storage facilities, requires significant upgrades to handle diversified and increased gas supplies. Existing infrastructure constraints limit our ability to respond swiftly to supply changes.

› Regulatory and Policy Barriers:
The regulatory environment, while designed to ensure safety and environmental protection, can sometimes hinder the rapid development and deployment of new gas projects. Streamlining these processes is essential for timely and efficient market adaptation.

› Economic and Price Volatility:
Global energy market volatility, influenced by geopolitical tensions and economic fluctuations, impacts gas prices. This unpredictability complicates long-term planning and investment in the gas sector.

I'm pleased to state that there is an increased interest in the overall work of IGUA-SA in the performance of its mandate. The support from the industry remains unequivocal. I wish to thank the increasing membership base for their continued support and trust in the work that we perform. I also wish to thank the IGUA-SA Exco and all members for their continued guidance, insights, and support throughout an unusual year. The gas landscape is faced with various challenges, and these can only be effectively addressed through a collective and consensus-based approach on the back of a broad and active membership base.

JACO HUMAN
Executive Offer, IGUA-SA

STRATEGIC SOLUTIONS

Despite these challenges, I am optimistic about our ability to navigate this complex landscape through well-defined strategic solutions:

› Diversification of Gas Supply:
To mitigate the risk associated with the gas cliff, we are exploring alternative sources of natural gas. This includes fast-tracking the development of domestic gas reserves and seeking new import agreements with international suppliers. Projects such as the Liquefied Natural Gas (LNG) import terminals are pivotal to diversifying our supply base and enhancing energy security.

› Investment in Infrastructure:
Upgrading and expanding our gas infrastructure is crucial. We are advocating for increased investment in pipeline networks, storage facilities, and processing plants. Enhancing infrastructure will improve our capacity to manage supply variations and support future growth. Public-private partnerships will be instrumental in mobilising the necessary resources and expertise for these projects.

› Regulatory Reforms:
We are engaging with policymakers to advocate for regulatory reforms that promote the growth and sustainability of the gas industry. Streamlining approval processes for new projects and creating incentives for investment in the gas sector are key focus areas. Collaboration between industry stakeholders and regulatory bodies is essential to create a more enabling environment for the gas market.

› Sustainability Initiatives:
As we address the immediate challenges, we remain committed to sustainability and environmental stewardship. Promoting the use of cleaner energy sources such as LNG and reducing our carbon footprint are integral to our strategy.

REVIEW BY IGUA-SA

The Global Gas Landscape[1]

Various regions in the world are experiencing rapid growth in population and energy needs. The large economic engines of the most populous countries, China and India, still rely heavily on coal, and the 2022 gas crisis contributed to an upward trajectory of its use.

> *Africa is the fastest growing region in the world with the youngest population; 600 million people lack access to power, while many others face unstable energy systems and weak infrastructure that require reinforcement for any energy transition to occur. Importantly, while natural gas will continue to play a pivotal role in the energy transition facilitating the decarbonisation of the global economy, the gas sector itself will also undergo a process of decarbonisation – an imperative for the gas sector.*

LNG Supply and Project Developments

ICIS predicts only a small annual increase in global LNG output this year, rising just over 1% from 410.9 million tonnes in 2023 to 416.3 million tonnes in 2024. This comes as a relatively limited number of new liquefaction projects are expected to enter the market, and the downturn from older plants with declining feed gas will likely offset part of the volume from the new projects.

However, there is a major new wave of projects ahead from 2025 onwards, first from the US, Canada, and Mexico, and later from Qatar, so a new wave of LNG supply is not too far away. If some of those projects make good progress, there could be some upside on growth in late 2024. The main projects due to start up in 2024 are the relatively small 0.6 mtpa Congo LNG and 2.5 mtpa Tortue LNG projects off West Africa, as well as the 1.4 mtpa Fast LNG project off Altamira, Mexico, with potential upside from early US projects like Corpus Christi's expansion in late 2024.

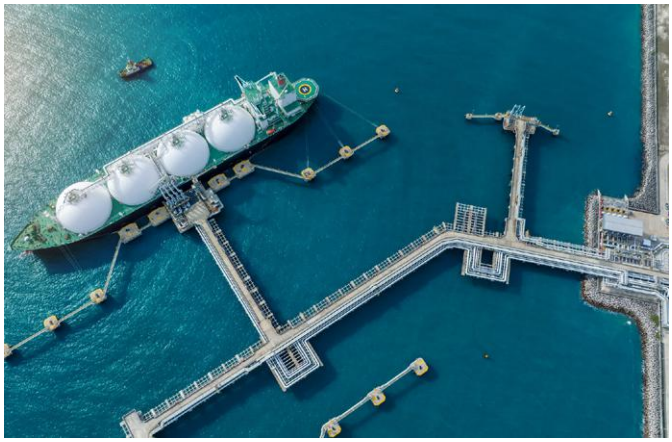
Russia's Arctic LNG project remains a key uncertainty. The first 6.6 mtpa train started producing LNG in late 2023 according to local reports. But while the plant is understood to be operational, it remains unclear how much it can load and sell in the market due to the impact of sanctions.

Structural Trends in Gas Demand

The gas supply shock of 2022 reinforced the structural trends that are weighing on the longer-term prospects for global gas demand. Overall gas consumption across the mature markets of Asia Pacific, Europe, and North America peaked in 2021 and is set to decline over the medium term as a result of the rapid deployment of renewables and improved energy efficiency standards. Demand growth is almost entirely concentrated in fast-growing Asian markets and gas-rich countries in Africa and the Middle East. Strong LNG supply at the end of the forecast period is set to ease market fundamentals and unlock price-sensitive demand in emerging markets in Asia.

Gas markets are set for slower growth over the medium term following a peak in gas demand in mature markets in 2021.

Gas demand growth is projected to slow by almost a third from an average rate of 2.5% per year during 2017-2021 to 1.6% in the 2022-2026 period. Natural gas consumption is expected to remain broadly flat in 2023 as demand gains in Asia Pacific and the Middle East are almost entirely offset by the drops in demand in Europe, Central America, and South America. Global gas demand is expected to return to moderate growth in 2024, primarily driven by Asia Pacific and the Middle East.



[1] *Source: International Gas Union, Global Gas Report 2023; 2024 ICIS LNG Global Supply & Demand Outlook, February 2024; LNG Contracting and Markets, Poten & Partners, Sept 2023; Shell LNG Outlook, 2024*

Future Gas Demand and Supply Dynamics

Demand growth is expected to be more robust in 2025-26, supported by higher LNG liquefaction capacity additions than the historical average. The combined gas consumption of mature markets in Asia Pacific, Europe, and North America peaked in 2021 and is expected to decline at a rate of 1% per year between 2022 and 2026. In Europe, the 2022 gas crisis reinforced the structural drivers accelerating the decline in gas demand over the medium term. An accelerated deployment of renewables, higher energy efficiency standards, and growing electrification in areas such as space heating are set to weigh on gas consumption. In mature Asia Pacific markets, improving nuclear availability together with the continued expansion of renewables is expected to reduce the call on gas-fired power plants and drive down overall gas demand. In North America, higher output from renewable energy is forecast to reduce gas usage in power generation, while improved energy efficiency standards and gradual electrification of heating are set to shrink the role of gas in residential and commercial sectors.

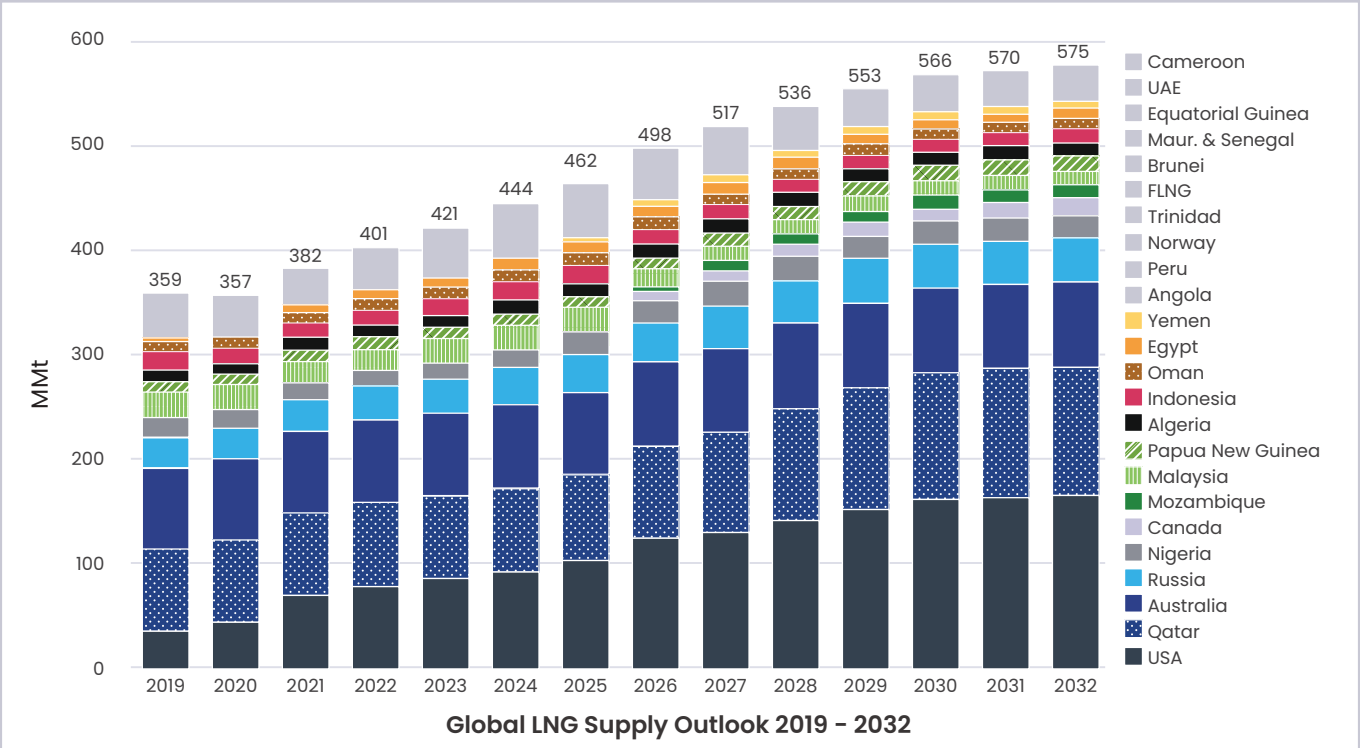
Regional Growth Drivers

Faster-growing Asia Pacific markets and gas-rich countries in Africa and the Middle East are set to drive growth in gas demand. China alone accounts for almost half of the increase in global gas demand over the forecast period, with the power sector, industrial production, and city gas networks being the major consumers. Strong LNG supply at the end of the forecast period is set to ease market fundamentals and unlock some price-sensitive demand in developing Asian markets that have the infrastructure in place. In the Middle East, production growth in Iran, Israel, and Saudi Arabia is expected to support the expansion of gas-intensive industries and higher gas burn in the power sector.

Africa's gas demand growth is driven by its rapidly rising population, improving energy access, and economic growth. Eurasian natural gas demand trends towards stagnation, with the region's gas demand standing 2% above its 2021 level by 2026.

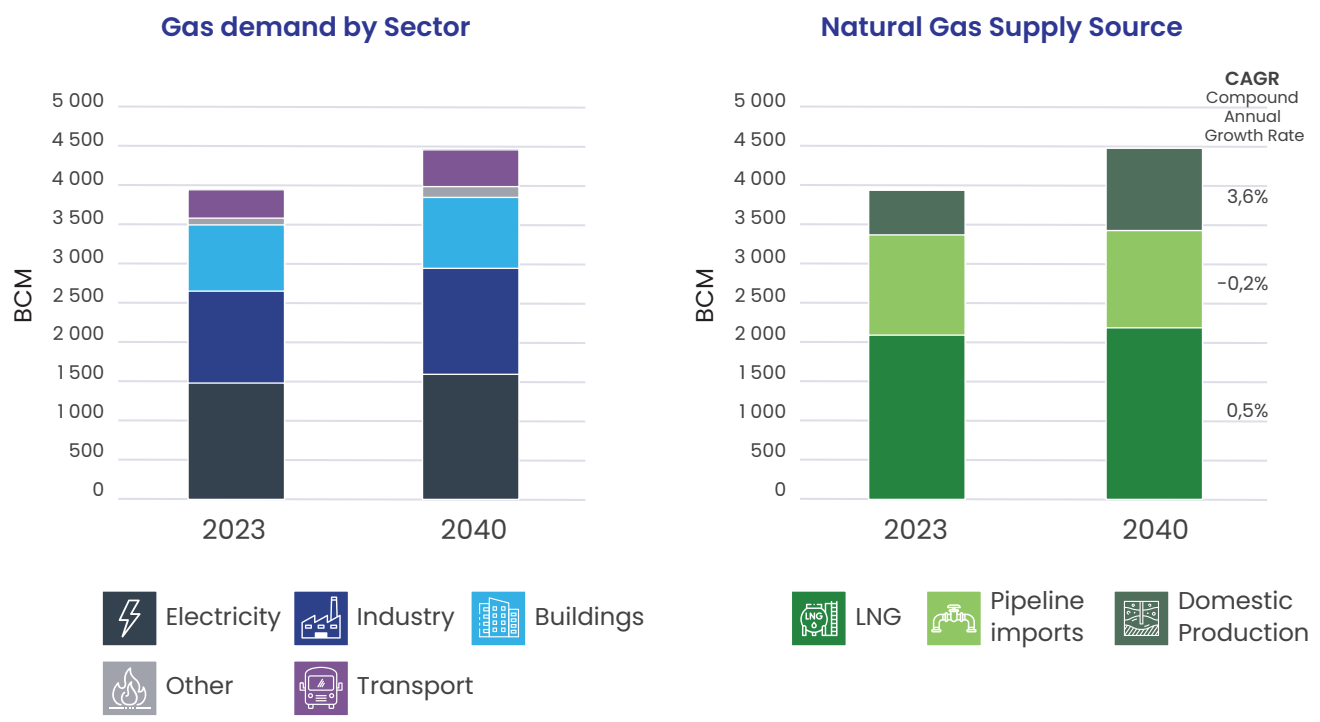
LNG Supply Expansion

Global supply of LNG is set to grow by 35% annually (CAGR) across the following regions, with the USA, Qatar, and Australia being the top LNG producer countries. Global LNG supply is expected to expand by 25% (or 130 bcm annually) between 2022 and 2026, with 70% of the supply increase concentrated in 2025-26. In this context, LNG export projects will be a key driver of upstream developments as supply requirements for LNG feed gas account for around 55% of the net increase in global gas output during the forecast period. The United States alone is set to contribute around half of incremental LNG supply, reinforcing its position as the world's largest LNG exporter. Consequently, the share of the United States in global LNG supply is set to increase from 20% in 2022 to over 25% by 2026. Considering the contractual terms underpinning US LNG supply (hub-indexed pricing mechanisms and destination-free shipping arrangements), the liquidity and flexibility of global LNG trade are set to increase over the medium term.



Global LNG Supply Outlook 2019 - 2032

Global natural gas supply and demand prospects to 2040 appear as follows, with the demand for LNG set to grow by 36% (CAGR) to 2040:



Global Gas Demand and Supply (BCM=Billion M³; 1 BCM = ±37,24 PJ)

United States Natural Gas Production

The United States continues to see strong supply-side growth, with dry natural gas production increased by an estimated 5% y-o-y (about 32 bcm) in the first nine months of 2023. On average, daily output remained above the 100 Bcf threshold (or 2.8 bcm/d). Natural gas production growth slowed from a 5% y-o-y increase in Q1-2 to 2% in Q3 2023.

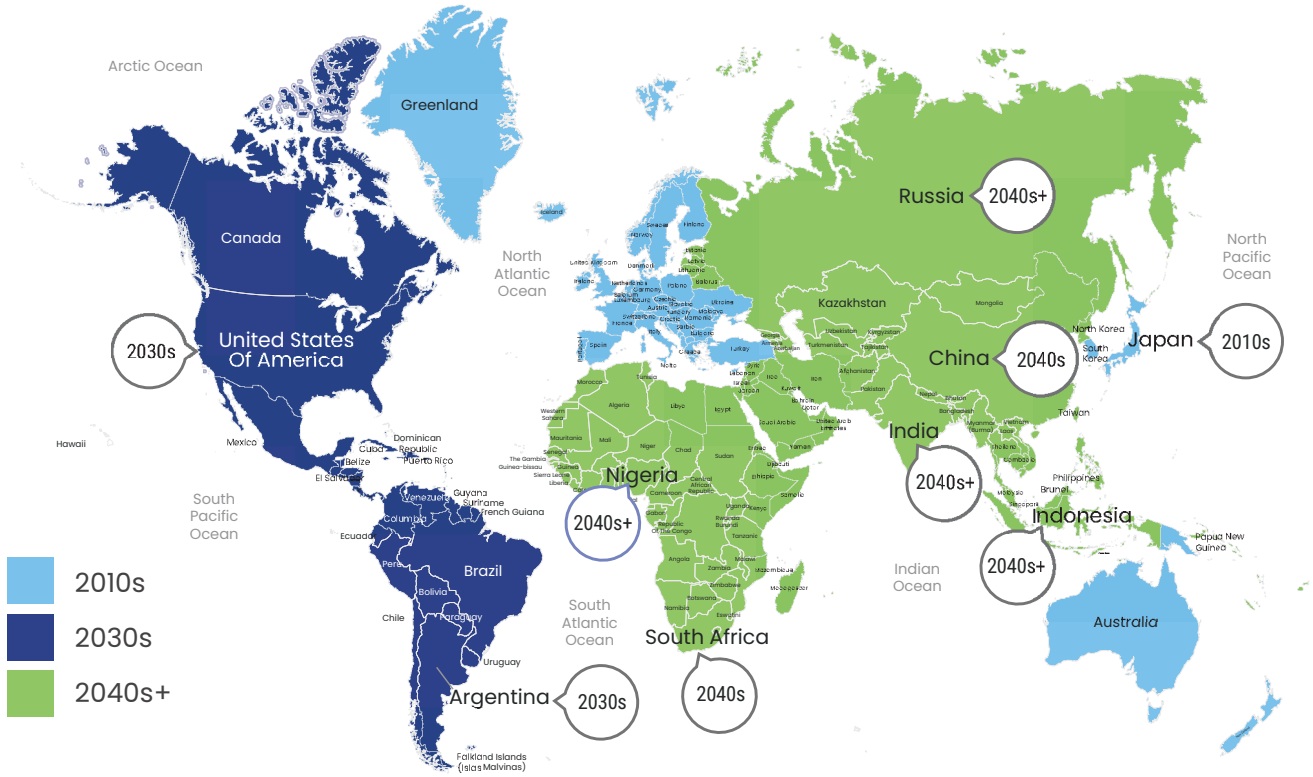
The significant growth in natural gas production was primarily due to an increase in the output of associated gas production from oil-driven shale plays. The Permian Basin, the largest source of associated natural gas, grew its output by 10% y-o-y during January to July 2023 when it reached an all-time high of 17.1 Bcf/d (or 0.48 bcm/d). The Permian Basin alone accounted for 30% of incremental natural gas production in the United States over the first eight months of 2023. This expansion is the result of sustained drilling activity in the region, with 466 wells drilled on average per month in 2023, or 8.3% more y-o-y than in July 2022.

Additionally, other plays such as the Eagle Ford, the Woodford, and the Bakken plays contributed to the development of associated gas output. The debottlenecking of the Permian Basin will be crucial to further expansion of sales gas production. In 2023, several pipeline expansion projects are expected to be completed.

Decarbonisation and Future Gas Demand

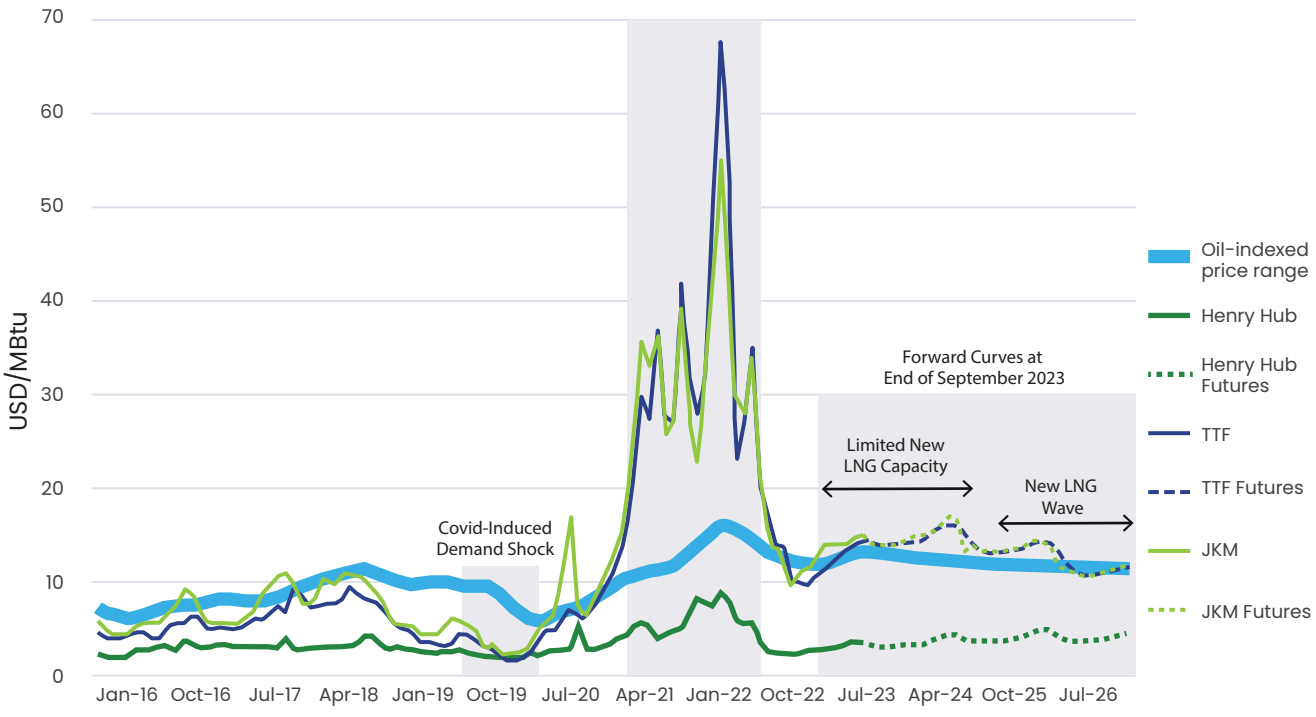
On the demand side, the longer-term outlook for gas demand is largely driven by decarbonisation targets, as gas is viewed as a transitional fuel source in combination with increased availability and low-carbon gases (i.e. bio-methane, low-carbon hydrogen, and e-methane) and renewable energy sources.

Globally, it is expected that gas demand will peak in the following timelines:



Peak Global Gas Demand by Decade

The below graph shows the LNG price history from 2016-2023, including a projection to 2026. Note the next wave of LNG is expected to come online from late 2025, potentially leading to softer prices.



Natural gas price assumptions across key regions 2016-2026 based on forward curves

Gas Energy Supply & Demand

Since 2020, natural gas consumption in Africa has almost tripled. However, outside of the main producing or transit countries in North Africa and Nigeria, where gas production capacity was initially developed principally for export purposes, its development has remained relatively limited.

> *Africa has accounted for close to 40% of new natural gas discoveries in the past decade – mainly in Mozambique, Mauritania, Senegal, and Tanzania. However, nearly half of the continent's production is exported, and the role of natural gas in Africa's energy consumption remains limited. New natural gas markets are emerging mainly for power generation to address growing electricity needs and as a substitute for liquid fuels. These new markets are supported by the development of domestic production as well as the commissioning of new import infrastructure.*

The role of natural gas in sub-Saharan Africa remains limited, with an estimated 15% (South Africa less than 3%) share of the energy mix. Regional organisations such as the African Union, as well as several governments, have underlined the importance of gas as a transition fuel for Africa on its journey to achieving greater energy access, clean cooking, and net-zero emissions.

Developing new gas outlets and sources of supply – either from domestic or imported sources – in emerging African markets raises the question of affordability, which proves particularly challenging in the current high-price and high-uncertainty market environment.

The potential development of gas demand in Southern Africa is principally contingent on decisions to invest in domestic production as well as investment in LNG import and distribution infrastructure. Natural gas consumption in South Africa has remained stagnant in the recent past. According to the latest draft version of the country's Gas Master Plan, issued in late 2021, gas accounts for less than 3% of the country's energy mix. The Gas Master Plan highlights the benefits of developing a domestic gas market to reduce emissions from coal and drive economic activity and employment if sourced from domestic resources. It identifies a list of priorities, principally in the power sector, such as coal-fired power plants reaching the end of their life or potentially convertible oil-fired power plants. However, considering the lead time to develop new supply chains, forecasting does not expect a significant change in South African gas demand up to 2025. Moreover, the Gas Master Plan emphasises the importance of affordability as a key success factor in the development of gas, which in the current price environment again casts a potential shadow on gas-based supply options, especially LNG import projects. The country's short-term power supply plan, the Risk Mitigation Independent Power Producer Procurement Programme, launched in 2020, which initially expected to deliver 1,845 MW of renewable and LNG-fired capacity for 20 years from 2022, is still on hold.

Neighbouring Mozambique, the main gas supplier to South Africa, exported its first LNG in 2022 with some additional gas production to supply its local market. This would supply gas under Sasol's Production Sharing Agreement (PSA license) to a 450 MW combined-cycle gas-fired power plant due to start operations in 2027, as well as provide feedstock for fertilizer production as part of the implementation of a Special Agro-Industrial Processing Zone in the north of the country funded by the African Development Bank.

In the face of declining volumes from Sasol's Pande/Temane from 2027, Mozambique has the most advanced development for LNG importation through the BGC FSRU development in Matola. This development, subject to commercial off-take arrangements, is mainly intended to supply natural gas to the South African market.

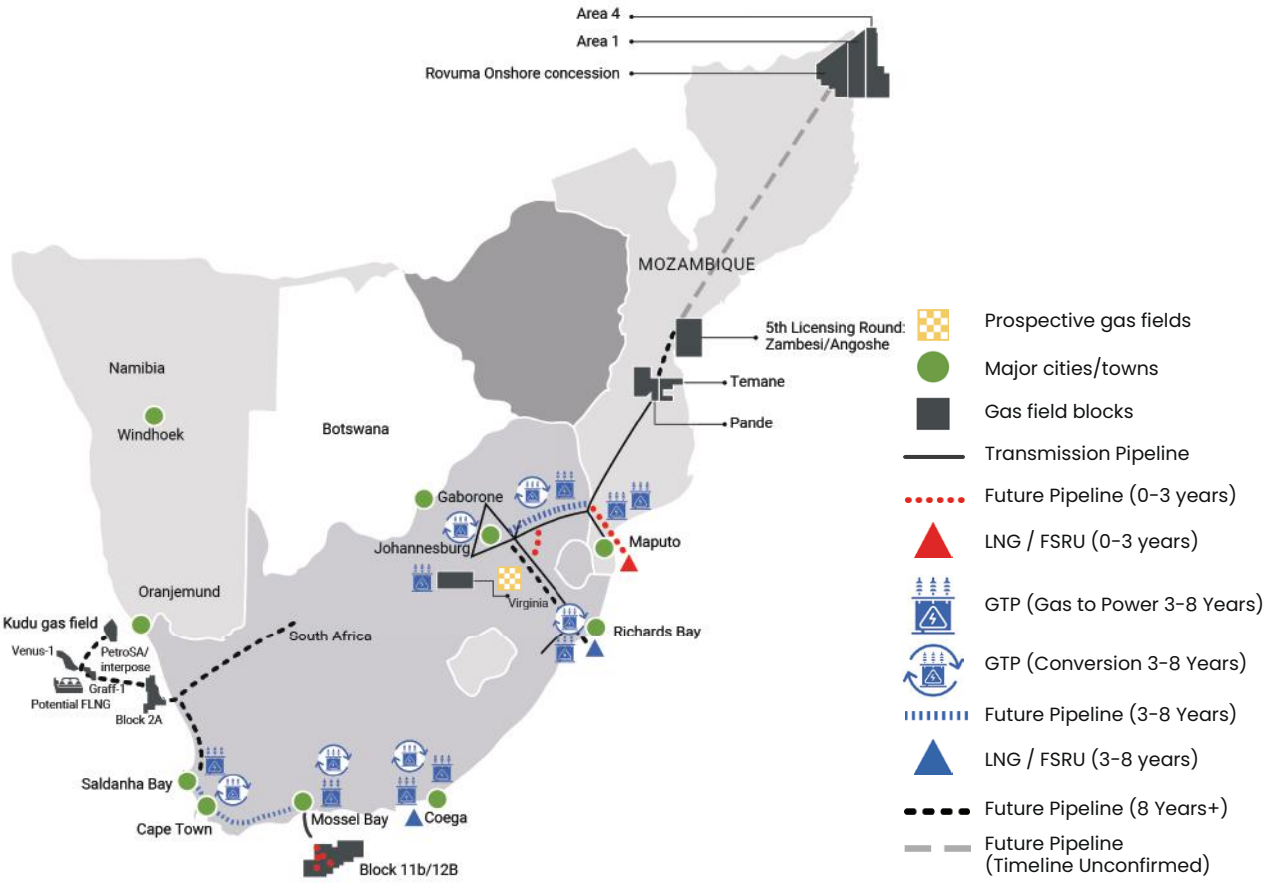
Namibia announced in February 2022 that it is set to invest significantly in the development of offshore oil and gas. Discoveries off the coast in Lüderitz of Graff have seen partnerships with Qatar Energy, Namcor, and Shell develop, as well as of Venus with TotalEnergies, Qatar Energy, and Namcor as partners. This region is set to become a global oil and gas supply hub over the next 10 to 15 years.

Over the short term, South Africa will be reliant on the only discernible LNG import terminal project at Matola, Mozambique. Over the medium term, the potential, although not apparent at present, exists for LNG import terminals at Richards Bay, Coega, and Saldanha Bay.

Longer-term upstream gas exploration opportunities exist on the East Coast and West Coast (Orange Basin) regions. While Luiperd/Brulpadda represents the most significant and advanced upstream gas development opportunity for South Africa, it is critical to secure viable domestic gas off-take to realise these developmental opportunities.

GAS ENERGY SUPPLY

Key regional developments for gas energy and their associated timelines are indicated in the figure below.



Regional Map - Key Gas Developments

Maputo LNG - The Mozambique Government in 2019 granted the concession for the establishment of an LNG floating storage and regasification unit (FSRU) in the port of Maputo with unlimited gas importation allowances. This project is also anchored on another concession for the establishment of up to 2,000 MW gas-to-power plant in Maputo and the aggregation of sufficient demand for gas energy in South Africa and Mozambique.

The development of this facility will be critically important to mitigate the expected suspension of the supply of natural gas by Sasol from Pande/ Temane from 2026 onwards and also to meet the increased demand for natural gas in South Africa.

Considering the timelines and prospects for LNG developments in Richards Bay, the Maputo LNG development will also be critical to substitute, through a pipeline link between Rompco and Lily, the methane-rich gas that Sasol will stop supplying from 2025/26 onwards to KwaZulu Natal.

TotalEnergies, in consortium with regional partners Gigajoule, is looking to reach a final investment decision (FID) in 2024 with an implementation date in 2027 on the back of committed demand.

Richards Bay LNG - An ideal location for LNG infrastructure to leverage existing pipeline infrastructure and demand nodes and to meet existing gas supply shortfalls. The establishment of LNG handling infrastructure could optimise the Lily pipeline by doubling the capacity to 40mGJ/a while making available an additional 20mGJ/a of gas energy inland (methane-rich gas currently supplied by Sasol in the Lily). As with Coega, the development of such a facility could be feasible if anchored on at least 1,000 MW gas-to-power as envisaged by the IRP 2019 and 2023. The RMIPPPP, now defunct, could have resulted in the early and temporary establishment of LNG handling and receiving infrastructure at Richards Bay from 2024 onwards, potentially servicing some regional demand in addition to gas-to-power requirements.

Transnet has been in the process of deciding on the development of LNG import infrastructure since 2014 without any material progress.

Transnet National Ports Authority issued a request for information in February 2022 for the granting of a concession to the private sector for the development of LNG import infrastructure and subsequently awarded the concession to a Transnet Pipelines (TPL)/Vopak consortium. A formal expression of interest document was issued by the consortium to which IGUA-SA has responded. The project is in the pre-feasibility stages with no confirmed timelines.

The investment in LNG infrastructure at Richards Bay will be contingent on a feasible business case for volume throughput of gas of at least 75-100PJ/a. IGUA-SA members in KwaZulu-Natal represent 11PJ/a. The balance will have to come from gas-to-power developments under consideration by Eskom and private developers post-2030.

The LNG infrastructure development at Richards Bay further requires the development of marine quay-side infrastructure (responsibility of Transnet National Ports Authority) and all associated pipelines from the quay-side to TPL/Vopak's new facilities and pipeline connections between Richards Bay and the Lily pipeline inland.

Development risk for such a project remains high due to the involvement of Transnet National Ports Authority, the uncertainty around the development of gas-to-power plans by the South African Government, and the need to financially anchor such investment on parallel projects, i.e., large-scale gas-to-power developments.

Considering the development and scale of multiple large-scale infrastructure projects, i.e., LNG import infrastructure and gas-to-power generation capacity in Richards Bay, it is unlikely that commissioning of these facilities will take place before 2030.

Block 11B/12B Brulpadda - TotalEnergies announced in February 2019 a significant gas condensate discovery on the Brulpadda prospects located on Block 11B/12B in the Outeniqua Basin, 175 kilometers off the southern coast of South Africa. The Brulpadda well encountered 57 meters of net gas condensate pay in lower Cretaceous reservoirs. Following the success of the main objective, the well was deepened to a final depth of 3,633 meters and was also successful in the Brulpadda-deep prospect. Following the success of Brulpadda and confirmation of the play potential, Total and its partners plan to acquire 3D seismic this year, followed by up to four exploration wells on this license. Block 11B/12B is operated by TotalEnergies with a 45% working interest, alongside Qatar Petroleum (25%), CNR International (20%), and Main Street, a South African consortium (10%).

In addition, TotalEnergies announced in October 2020 a promising gas condensate discovery at the Luiperd prospect, the second in the block after Brulpadda. When the well's flow rates have been established, TotalEnergies will work on development studies and engage with the South African government on gas commercialisation. First gas production could be as soon as 2030, subject to off-take agreements with PetroSA and/or large-scale on-shore gas-to-power generation. Prospects in this regard have become increasingly remote due to inaction by the South African Government.

Panda/Temane – Majority owned by Sasol, it supplies some ±193mGJ/a gas at present (since 2004) to South Africa (±163mGJ/a) and Mozambique (±30mGJ/a) under a Petroleum Production Agreement (PPA) through the Rompco and Sasol gas transmission pipelines. Available gas is expected to decline by some 42% between 2024 and 2030. The PPA fields have been produced at a plateau since 2015 with minimal development expenditure.

In June 2023, there were 24 productive wells in the Pande-Temane PPA asset. Four new infill wells were drilled, and one producer well was reinstated, increasing the productive wells from 19 to 24 being online. As part of Mozambique Exploration Remediation and Infill Campaign drilling campaign, several wells have been plugged and abandoned, and others remain on schedule for plug and abandonment. [2]

Gas produced from the Pande Temane PPA asset, other than royalty gas provided to the Mozambican government, is supplied in accordance with long-term gas sales agreements (GSAs). The gas produced in accordance with GSA1, signed on 27 December 2002 and amended on 3 May 2022 (30-year contract term from 1 April 2004) and GSA2, signed on 10 December 2008 (20-year contract term from 1 January 2010), is sold internally for use as part of the feedstock for our chemical and synthetic fuel operations and to the external market in South Africa

[2] *Sasol Form 20-F, United States Securities And Exchange Commission Washington, D.C. 20549*

with a daily contract quantity equivalent to 132 PJ/a (11,975 bscf/a) and 27 PJ/a (2,449 bscf/a) for GSA1 and GSA2 respectively. There are four off-takers under the GSA3, which are 20-year contracts that supply gas to the Mozambique market. These satisfy a license condition that a portion of gas produced is utilized in-country. The contracts are with Matola Gas Company S.A. from 1 July 2014 for 8 PJ/a (726 bscf/a), ENH-Kogas from 1 March 2013 for 6 PJ/a (544 bscf/a), Central Termica de Ressano Garcia S.A. from end-February 2015 for 11 PJ/a (998 bscf/a), and ENH effective from 1 June 2015 for 2PJ/a (181 bscf/a).

Production from Proved Reserves is expected to commence declining in 2024 when it will no longer be possible to fully supply gas at currently contracted rates. Technical options are currently being considered to address this issue.

Sasol commenced a four-well development program in 2020 at an average well cost of US$20 million to maintain current production levels. Infill drilling projects are underway, which will convert proved undeveloped reserves into proved developed reserves to maintain supply over the near term. The Pande and Temane legacy fields have and continue to underpin the area's production. However, both fields are becoming increasingly mature. Further exploration in the area is required to backfill the gas supply to end users. Sasol completed an extensive 2D seismic program in 2019 on the neighboring PT5-C license, where a two-well exploration campaign was completed in 2023. The first well was dry, and the second below expectations.

In IGUA-SA's opinion, it is this outcome that prompted Sasol to suspend gas supply to the South African market from June 2026 and to impair its liquid fuels and gas business by approximately R36 billion in its 2023 financial year. In short, there is no gas prospect from these resources at present.

As of June 2023, available gas resources are 2-3 years of production at current supply levels under the license of its Petroleum Production Agreement (PPA). In addition, Sasol is exploring the area under a second agreement, the Production Sharing Agreement (PSA). Under this agreement, gas needs to be prioritised for the industrialisation of the Mozambique economy. Sasol, however, secured the supply of 30mGJ/a under the PSA for supply to its operations from 2025 – possibly to cover any shortfalls until the suspension of gas supply in 2026.

In parallel with the decision to suspend the supply of natural gas, Sasol will also stop supplying methane-rich gas (MRG, a by-product of its Secunda operations) from June 2026 onwards, as Sasol opts to consume the gas itself for decarbonisation purposes.

Virginia – Renergen/Tetra4 has been exploiting small quantities of gas for the compressed natural gas market (mainly transport) since 2016 and operates small gas liquefaction facilities to supply ±1.0mGJ/a gas in LNG form, distributed by trucks to small niche markets for the displacement of more expensive LPG and diesel fuels.

Amersfoort – Kinetiko is in the process of exploring gas in the Amersfoort region of southern Mpumalanga and northern KwaZulu Natal. IGUA-SA engaged with Kinetiko to assess the potential for gas supply, noting the development pathway for Kinetiko is unlikely to meet the demand for industrial gas in South Africa.

Rovuma Area 1 & Area 4 – This basin holds significant gas resources on a global scale. Proven resources are estimated to be some 121 TCF across Area 1 (63 TCF Total/Anadarko) and Area 4 (58 TCF ENI), with potential for further development. First gas in LNG form became available in 2022 from the floating Coral platform, with LNG destined for Asian markets. Total/Anadarko reached FID in June 2019 for the development of two 6 mtpa LNG trains onshore for commissioning in 2024 – now expected to be around 2028. Approximately 92% of this capacity has already been contracted for the supply of LNG to Asia. Investment in the exploitation of these resources will reach approximately $128 billion by 2029. However, the onshore projects are increasingly the subject of armed insurgencies and attacks, placing the development at risk if not countered by military action.

For South Africa to benefit at all from these developments, it will first need to develop LNG receiving infrastructure. Long-distance (±1,700 km) pipeline development from Rovuma linking into the existing Rompco remains an alternative over the long term, say beyond 2035, but is subject to regional demand aggregation, economic development, and regional inter-governmental political and investment coordination initiatives. Investment and development in this pipeline appear not to be feasible.

Namibia - Namibia is undergoing multiple exploration and appraisal (DST) wells that will materially affect the country's potential oil production. Venus is an ultra-deepwater oil field located on Block 2913B offshore Namibia, discovered by TotalEnergies in February 2022. QatarEnergy, Impact Oil & Gas, and Namcor are partners in the exploration license with TotalEnergies, with participating interests of 30%, 20%, 10%, and 40% respectively, representing the largest discovery ever made in the country. From a wider Namibia perspective, there is also the possibility of a larger offshore gas pipeline from Kudu (e.g., 18") facilitating more landed gas faster and, in time, an Offshore Gas Processing Hub around Kudu, which could facilitate the development of Namibia LNG. In 2024, it is expected that additional wells will be drilled by TotalEnergies (e.g., Koekemoer, Damara), Shell (TBA), Galp, Chevron, and Rhino. Kudu FID is expected by year-end 2024/early 2025, likely including additional drilling (newer seismic has been shot by BW Offshore). Graff was the first oil discovery made in Namibia in ultra-deepwater, located on Block 2913A, discovered by Shell in February 2022. QatarEnergy and Namcor are partners in the exploration license with Shell, with participating interests of 45%, 10%, and 45% respectively. Follow-up exploration/ appraisal drilling commenced two weeks after the discovery, with the La Rona 1 well reported as also successful.

Zambesi/Angoshe/Buzi – With ENI and ExxonMobil involvement in Zambesi/Angoshe, the potential to supply gas from these resources is some 3-5 TCF (approximately equal in size to the Pande/Temane resource) and considered to be in a very early exploration phase. Further exploratory drilling has commenced in Buzi, which is majority-owned by Energi Mega Persada Tbk PT of Indonesia. Although very well located for linking into the Rompco network, the potential monetisation and timelines of these resources remain unclear.

Coega LNG – The DMRE announced in 2019 its plans to establish an LNG import terminal at Coega, likely to be coupled with future gas-to-power programs as contemplated in the IRP 2019 and 2023. Coega is of no consequence to materially meet the imminent and current gas supply shortfall for gas energy consumers in KwaZulu-Natal, Gauteng, and Western Cape, where the demand for gas is much larger. It does not leverage economically existing gas infrastructure and does not act as an economic catalyst for urgently needed gas energy infrastructure where gas energy demand is currently concentrated. The RMIPPPP did not result in the early and temporary establishment of LNG handling and receiving infrastructure at Coega from 2022 onwards, which could have potentially serviced some regional demand in addition to gas-to-power requirements. Plans are underway by the DMRE to own, operate, and trade in gas and related LNG infrastructure.

Saldanha Bay LNG – As reflected above, the Western Cape region suffers from the largest gas supply shortfall, making the development of LNG infrastructure most feasible from an investment perspective when, as with Richards Bay and Coega, it is anchored on the development of at least 1,000 MW gas-to-power. Timelines remain uncertain.

Mamba/Lesedi Fields – CBM or coal bed methane gas reserves are present in Botswana. The concession is owned by Tlou Energy and is estimated to hold around 0.2 TCF (±200mGJ) of gas. Tlou energy plans to develop gas and solar power generation assets at Lesedi, with the sale of electricity into the regional power grid. In addition, the company has two large exploration areas, namely Mamba and Boomslang. Development timelines remain unclear.

Karoo Shale Gas – Appears to have sizable potential, but these estimates are highly uncertain and environmentally controversial. Sources previously estimated reserves at a staggering 485 TCF, but recent estimates (September 2017) showed much less potential. Commercial viability remains uncertain. Even if development did occur, it is unlikely that any sizable output would be produced by 2035-40, given the shale reserves' dispersed nature and the need to develop infrastructure and a supply value chain (which is likely to take more than a decade).

Blocks 9 and 11 – Block 9, which supplies gas to the Mossgas Refinery, was commissioned in 1992 and is depleted from December 2020. A 2015 drilling campaign to increase the reserve base was unsuccessful. PetroSA gas supply from Block 9 came to an end at the end of 2020, while it has unsuccessfully considered the importation of LNG to sustain future operations. PetroSA also owns Block 11, with limited gas resources estimated at some 0.5 TCF (±590 million GJ) and is unlikely to be developed.

PetroSA Block 2A – Discovered in 1987 off the West coast of South Africa, it is estimated to hold some 1.5 TCF gas (±1.7 billion GJ). PetroSA has a 24% stake in this field. The economic feasibility for the development of this field remains unclear, and it is unlikely to be developed over the medium term.

Kudu Gas Field – Discovered in 1974 off the coast of Namibia, it is estimated to hold some 1.3 TCF gas (±1.5 billion GJ). This development is anchored on a gas-to-power plant in Oranjemund and the ability of Namibia to export power to the region. Prospects for development appear to have reduced as Namibia failed to conclude power export agreements to the region. From a technical perspective, a subsea tie-in would be required, which is considered to be one of the longest in the world. The economic feasibility for the development of this field remains unclear, and it is unlikely to be developed over the medium term. Nevertheless, the Norwegian company BW Energy signed a deal to increase its stake in Kudu to 95% from 56%, with the state-owned Namcor keeping the remaining 5%. The Namibian company has an option to acquire another 5% after the first gas.

Pipeline And Infrastructure Developments - The ability of the current gas delivery network is determined by the upstream production capacity of gas at Pande/Temane, the Rompco, Sasol, Lily, and SWM gas transmission pipelines.

Sasol's Central Processing Facility (CPF) at Pande/Temane has a design capacity of some 190mGJ/a.

Pipeline gas transmission capacity is stated by Sasol for Rompco at 211mGJ/a, for Mpumalanga at 116mGJ/a, for Gauteng at 135mGJ/a, and for Transnet's Lily at 24mGJ/a.

It is estimated that the available capacity across the gas transmission networks is approximately 50mGJ/a from Ressano Garcia (future LNG entry point) to Secunda (150mGJ/a with loop lines 3 & 4 upgrades); Mpumalanga at 7mGJ/a; Gauteng at 44mGJ/a; and Transnet's Lily at some 2mGJ/a.

To mitigate gas energy supply risk and provide future gas supply optionality, it is critically important to link the Rompco and Lily pipelines by 2025, as indicated in the above graphic.

Prospects for other pipelines, such as a new pipeline between Richards Bay and Secunda, pipelines on the west coast of South Africa, etc., are in conceptual stages and therefore relatively remote.

GAS ENERGY DEMAND

Economic growth in South Africa is adversely impacted by what can now be deemed as the chronic, erratic, and insufficient undersupply of energy.

Regarding natural gas, South Africa has experienced no growth in gas energy consumption since 2015. Sasol, the only primary supplier of gas, supplies approximately 185PJ/a to South Africa, consisting of approximately 125PJ/a for Sasol and 60PJ/a (40PJ/a natural gas; 20PJ/a methane-rich) to third-party industrial users.

IGUA-SA regularly updates its qualitative assessment based on the mid and downstream market for gas, feedback and information obtained from gas user market assessments, the South African Government's current policy towards gas energy, the IRP 2023, and recent gas market studies for South Africa, as well as certain views of global gas market trends. It further looks at the national supply and demand balances across four respective gas market complexes or nodes:

01 Mpumalanga/Gauteng

02 KwaZulu Natal

03 Eastern Cape

04 Western Cape

There is an increased reliance on gas energy in South Africa. This is also reflected in the updated IRP 2023 of the South African Government.

IGUA-SA now estimates that gas demand in 2033 will be 800PJ/a – up from the previous year's estimates of 718PJ/a and 595PJ/a in the year before that.

Gas demand results, expressed in PJ/a, are underpinned by realistic assumptions with the following sectoral drivers for demand and underlying dynamics within each sector:

LEGEND

IND: Refers to demand from the petrochemical sector (Sasol and Petrosa) and the industry's demand growth linked to long-term GDP growth at 3%/a and decarbonisation targets.

PWR PVT: Refers to the demand for gas for embedded or private gas-to-power generation, assuming 150MW/a.

PWR IRP: Gas-to-power generation as per IRP 2023 (722GW 50% baseload 4GW KZN 1GW MPU 122GW EC 1GW WC)

PWR RMIPPPP: Not considered in future forecasts due to the assumed failure of the program.

PWR CONV: Assumes conversion of Kelvin 400MW power station at 25PJ/a from 2028, Eskom 2000MW at 100PJ/a from 2030 (MPU), and diesel fuel power stations, including Kelvin, Eskom, Ankerlig, Gourikwa, Avon, and Dediza.

LOG: Refers to the demand for gas from the logistics and mining sectors seeking to displace diesel fuel with cheaper and cleaner gas fuel/ LNG alternatives (diesel substitution).

01 Mpumalanga/Gauteng Demand

MPUMALANGA/GAUTENG	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
IND	165	166	167	168	219	220	221	222	224	225	226
Petrochem	120	120	120	120	170	170	170	170	170	170	170
Industry	45	46	47	48	49	50	51	52	54	55	56
PWR PVT	3	6	9	13	16	19	22	25	29	32	35
PWR IRP								31	31	31	31
PWR RMIPPPP											
PWR CONV						25	25	125	125	125	125
LOG						1,21	1,33	1,46	1,61	1,77	1,95
Demand Total	**168**	**172**	**176**	**181**	**235**	**266**	**270**	**405**	**410**	**414**	**419**

02 KwaZulu Natal Demand

KWAZULU NATAL	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
IND	20	20	21	21	22	22	23	23	24	24	25
PWR PVT							10	12	14	16	18
PWR IRP							31	31	62	93	124
PWR RMIPPPP											
PWR CONV							3	3	3	3	3
LOG & MIN							1,5	1,7	1,8	2,0	2,2
Demand Total	**20**	**20**	**21**	**21**	**22**	**22**	**68**	**71**	**104**	**138**	**172**

03 Eastern Cape Demand

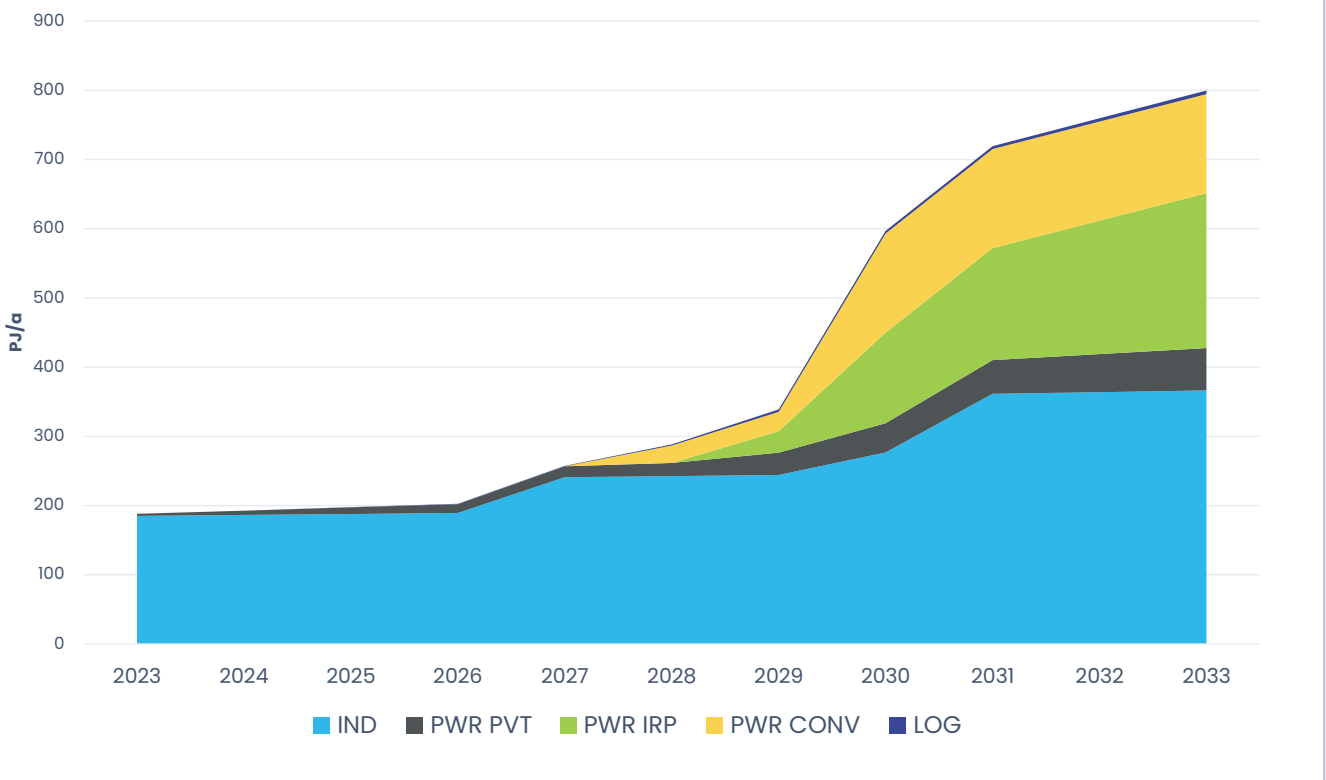
EASTERN CAPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
IND								5	5	5	5
PWR PVT								0,95	1,27	1,58	1,90
PWR IRP								38	38	38	38
PWR RMIPPPP											
PWR CONV								2,5	2,5	2,5	2,5
LOG								0	0	0	0
Demand Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**46**	**47**	**47**	**48**

04 Western Cape Demand

WESTERN CAPE	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
IND	0	0	0	0	0	0	0	26	109	110	110
Petrochem									83	83	83
Industry								26	27	27	28
PWR PVT								4	5	6	7
PWR IRP								31	31	31	31
PWR RMIPPPP											
PWR CONV								13	13	13	13
LOG			1	1	1	1	1	1	1	1	1
Demand Total	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**75**	**159**	**160**	**162**

South Africa Demand

SOUTH AFRICA DEMAND	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
IND	185	186	188	189	241	242	244	277	362	364	366
PWR PVT	3	6	9	13	16	19	32	42	49	55	61
PWR IRP	0	0	0	0	0	0	31	131	162	193	224
PWR RMIPPPP											
PWR CONV	0	0	0	0	0	25	28	143	143	143	143
LOG	0	0	1	1	1	2	4	4	4	5	5
Demand Total	**188**	**193**	**198**	**203**	**258**	**288**	**339**	**597**	**719**	**760**	**800**

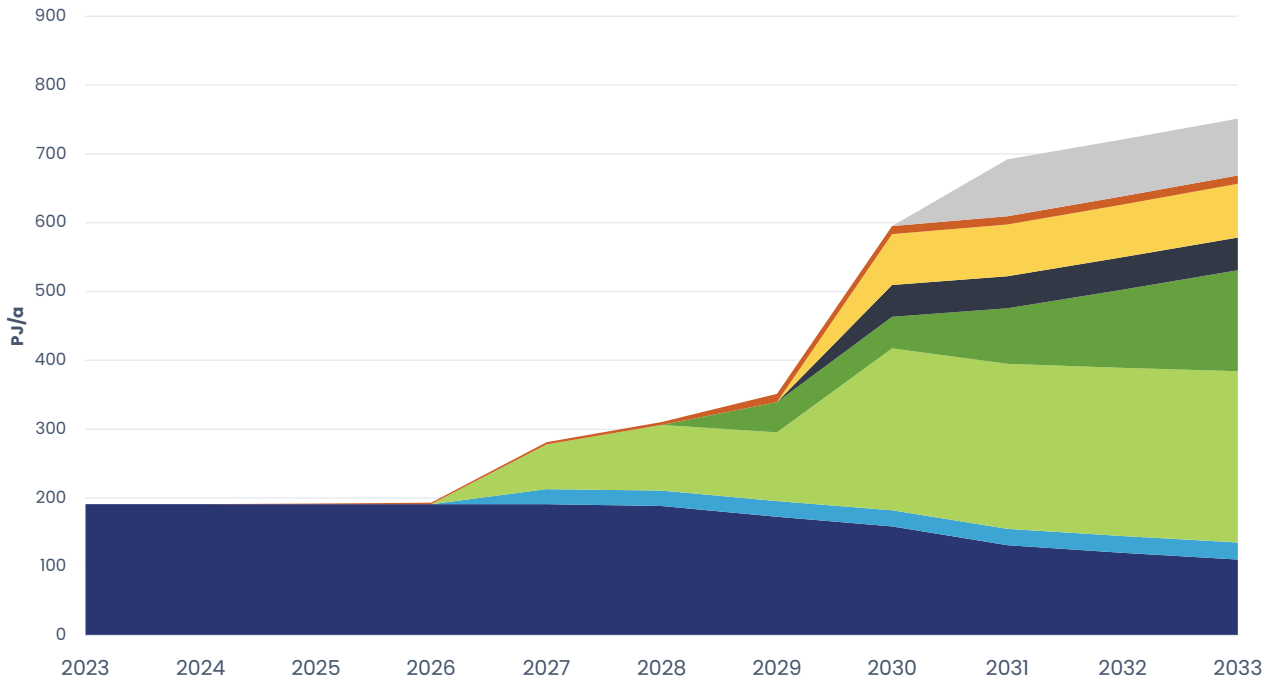


South Africa Gas Demand

South Africa Supply

Meeting the above demand requires gas supply sources and associated timelines as follows:

SOUTH AFRICA SUPPLY	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Sasol Gas	191	191	191	191	191	188	173	159	131	120	111
Matola LNG (KZN)					22	22	23	23	24	24	25
Matola LNG (GP & MPU)					65	96	100	235	240	244	249
Richards Bay LNG (KZN)							44	46	81	114	147
Coega LNG (EC)								46	47	47	48
Saldanha LNG (WC)								74	75	77	78
ss LNG (Renergen/others)			1	2	3	4	12	12	12	12	12
Supply NG Luiperd/Brulpadda									83	83	83
Gas availability	**191**	**191**	**192**	**193**	**281**	**310**	**351**	**595**	**692**	**721**	**751**



South Africa Gas Supply

Infrastructure to meet gas energy demand remains wholly inadequate. This is exacerbated by the expected 10-15% per annum decline of Pande/Temane gas volumes from 2025 and the reallocation of methane-rich gas from KZN and Mpumalanga to Sasol in Secunda. To mitigate the gas energy shortages and to ensure that demand is met, South Africa's gas landscape requires dedicated focus by the South African Government in collaboration with industry.

RESPONDING TO THE CHALLENGE

The exit by Sasol from the gas supply market, given its historical monopoly status, leaves a fragmented market with multiple users of relatively small volumes of gas. This market structure is not conducive to mitigating gas energy security risks, as gas users on an individual basis are restricted through volume to enable large infrastructure projects to ensure future gas availability.

Gas aggregation can provide potential solutions for industries to collaborate to secure cost-efficient gas supply through volume aggregation, the enablement of infrastructure, and the dilution of commercial risks.

Immediate Actions Required for Securing South Africa's Gas Energy

Over the **immediate and short term**, it is required to ensure and/or facilitate the following to secure gas energy for the South African economy:

01

Transition from Sasol Gas to LNG

Securing an orderly transition from Sasol gas supply to LNG through Matola to mitigate the misalignment of the earliest commercial operations date of the LNG terminal at Matola (June 2027) and the date of Sasol's gas supply suspension (June 2026).

02

Establish a Gas Market Aggregator

Establishing a gas market Aggregator to establish a conducive market structure to enable cost-efficient gas supply and infrastructure developments.

03

Timely LNG Infrastructure Development

Ensuring through appropriate contracting the timely development of LNG import infrastructure at Matola, seen as the most advanced LNG project to meet South Africa's gas requirements by 2026/7, followed by Richards Bay.

04

Government Risk Assumption for Urgent Projects

Assuming the residual risk for gas infrastructure developments by the South African Government to enable the bankability of urgent projects.

05

Linking of ROMPCO and Lily Pipelines

Facilitating the linkage of the ROMPCO and Lily pipelines to ensure gas energy security and optionality for KwaZulu-Natal.

06

Lobbying for Gas-to-Power Generation

Lobbying with the South African government the potential of gas-to-power generation opportunities and the appropriate location of power plants to mitigate imminent gas energy security risks. These measures include the careful coordination of the development and location of planned gas-to-power plants by prioritising geographic locations that will mitigate the gas energy security risk for South Africa. The resultant demand for gas from power generation will enable the upstream development of the required LNG and related gas infrastructure. In particular, the decision to develop gas-to-power generation on the Rompco pipeline is of urgent and critical importance to address the pending supply suspension of gas from July 2026 and to build sufficient demand for gas to enable the development of LNG and associated infrastructure at Matola.

Medium Term Actions Required for Securing South Africa's Gas Energy

Over the **medium term**, industry must consider, review, advocate, and/or facilitate:

01

Agreements with Mozambique

Securing an orderly transition from Sasol gas supply to LNG through Matola to mitigate the misalignment of the earliest commercial operations date of the LNG terminal at Matola (June 2027) and the date of Sasol's gas supply suspension (June 2026).

02

Fast-Tracking an Integrated Gas Master Plan

Fast-tracking the development and implementation of an integrated and implementable Gas Master Plan that addresses gas requirements for all sectors in the up, mid, and downstream markets and provides for a conducive policy and regulatory environment to support investment in gas energy infrastructure.

03

DTIC Gas Energy Industrialisation Plan

The urgent development by the DTIC of a Gas Energy Industrialisation Master Plan to spur and leverage sectoral growth opportunities, including the development of an investment framework for the up, mid, and downstream related markets for services, local manufacturing of gas equipment, and gas infrastructure development.

04

Addressing Policy Misalignment in Gas

Addressing the lack of urgency and misalignment of timelines in the gas energy sector brought about by decades-long policy poverty and uncertainty.

05

Redefine SOEs' Role in Gas Sector

Redefining the role of SOEs in the gas energy sector to provide investment certainty and clarity for the private sector.

06

Reducing the Regulatory Barriers for Gas

Streamlining the regulatory inhibitors for infrastructure developments by coordinating intra-governmental functions to enable gas energy security, access to gas energy, and growth within the context of a net zero emissions economy by 2050.

07

Gas-Enabling NERSA Pricing Methodologies

Ensuring that NERSA's pricing methodologies enable the use of gas and the development of associated infrastructure.

MEMBERSHIP

IGUA-SA membership continues to grow. Current members and program participants at the time of writing include:

AB-Inbev
Arcelor Mittal
Ardagh Group
Ceramic Industries
Corobrik
Mondi
PFG
Scaw
South32
AlcoNCP
Brother Cisa
CBC
CNG Holdings
Coca Cola
Highveld
Hulamin
Illovo
IngrainSA
Isegen
KAP Holdings
Maxion
Metsep
National Brands
Norcros
Premier
Rand Refinery
Samancor
SARCO
Transvaal Galvanisers
Wispeco

The natural gas landscape faces various challenges related to policy, availability, and pricing in the immediate future. These can only be effectively addressed if more organisations participate in IGUA-SA's work.

The IGUA-SA is governed by a formal constitution, adopted by its founding members, and provides a formal platform to conduct its business. IGUA-SA engages various other gas users and interested parties continuously to deliver on its primary objective to ensure the efficient availability of hydrocarbon gas in Southern Africa. This occurs in the context of a growing demand for natural gas, both by organisations requiring more gas to expand and organisations wishing to switch to gas from costly and environmentally harmful alternative energy sources.

IGUA-SA's membership is open to the broader gas value chain and includes various tiers of membership:

Affiliate Membership

International organisations interested in natural gas activities in Southern Africa.

Associate Membership

Consultants and professionals in the operating, financial, marketing, and legal communities, and others who provide services to the natural gas industry.

Industry Membership

New gas suppliers, gas traders, and new gas transmission/distribution organisations.

Gas user Membership

Non-vertically integrated gas end-users (current & future) who have voting rights, are represented on the Exco, and reserve right of admissions.

IGUA-SA has proven to be an efficient way for organisations to strategically manage natural gas as a commodity. Stakeholders are therefore invited to join IGUA-SA to collectively address these challenges and to jointly share in the knowledge and participate in the strategic actions undertaken by IGUA-SA. Appropriate resources are being deployed and utilised on an ongoing basis. A broader participation in membership will not only assist in achieving IGUA-SA's strategic objectives but will also assist in efficiently meeting commercial obligations through a wider membership base.

IGUA-SA

Industrial Gas Users Association - Southern Africa

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