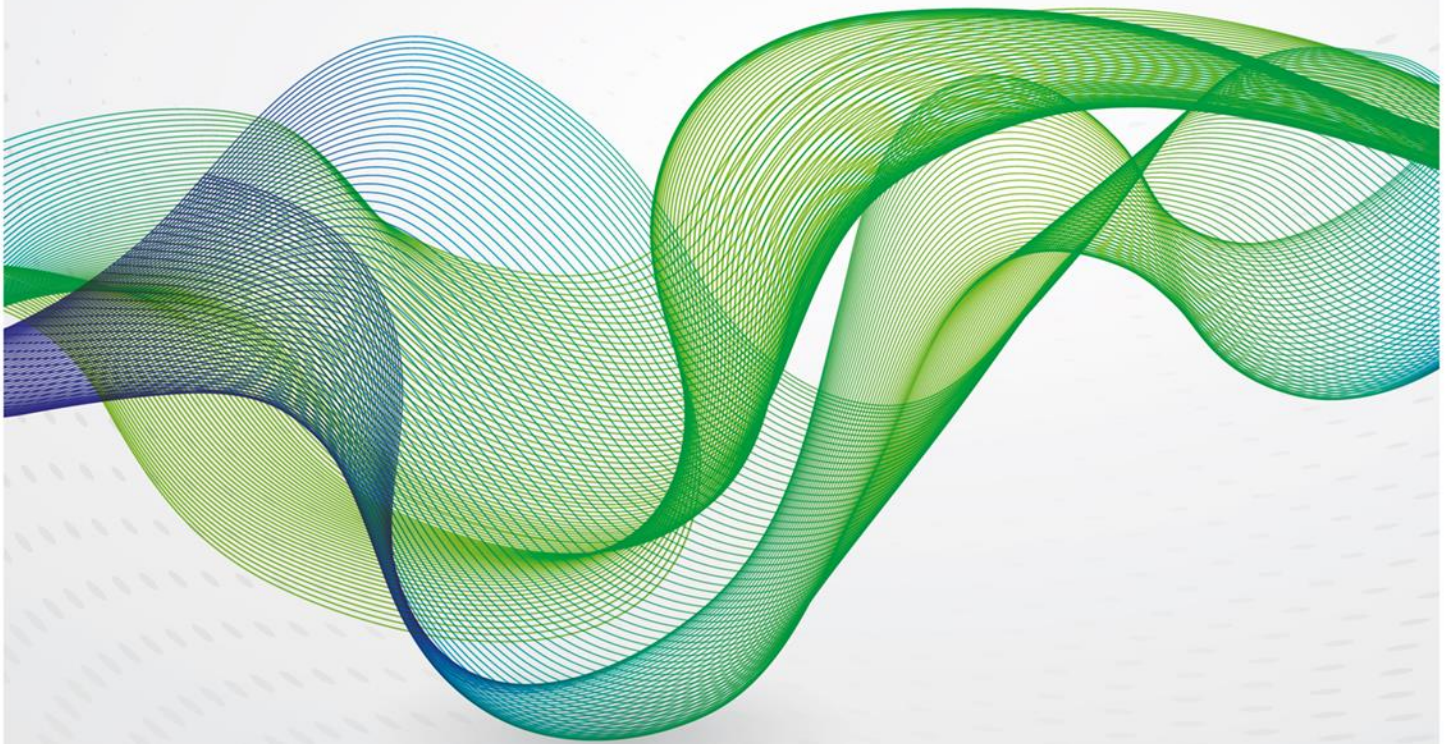


July 2022

# African gas supplies to Europe: between hopes and hard realities



## Summary

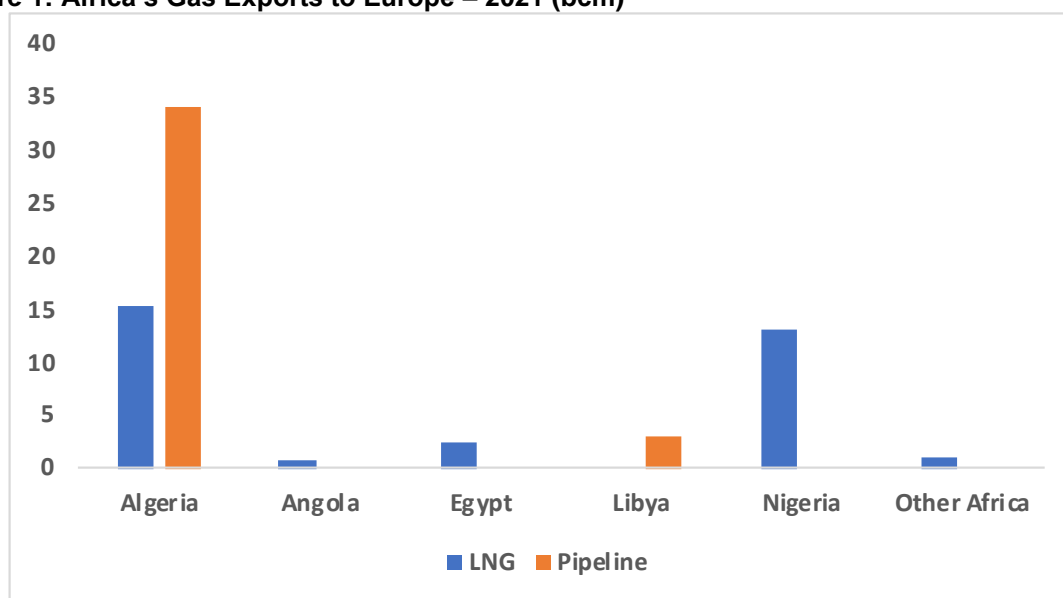
The consequences of the ongoing war in Ukraine continue to be a key topic of interest and concern for politicians, international organizations, journalists, and researchers. Following the decision of the European Union (EU) to significantly reduce its reliance on Russian gas supplies, as formulated in its REPowerEU plan,<sup>1</sup> EU member states have been seeking non-Russian sources of gas imports in an attempt to secure additional and/or new gas supplies. Africa's natural gas reserve holders are among the first countries under consideration.

But Europe's newfound enthusiasm for African gas is aimed at securing additional short-to-medium term gas supplies, whereas meaningful incremental African gas volumes will mostly come online later this decade. Moreover, interest from most European countries or international oil and gas companies does not necessarily bring with it new long-term financing and off-take commitments. Lastly, most African gas producers need to balance their growing domestic demand for gas supplies with the evolving needs of international gas markets.

## Europe's new African gas focus

Africa, which in 2021 accounted for 20 per cent of Europe's gas imports, with over 50 per cent exported through pipelines and the rest as LNG (see Figure 1), has suddenly become a focal point for EU policymakers. Official delegations from some key European countries, accompanied by international oil and gas companies, have visited several existing and future African gas exporting countries to secure short-to-medium term gas deals. Some African countries have even been asked to supply coal to Europe.<sup>2</sup>

**Figure 1: Africa's Gas Exports to Europe – 2021 (bcm)**



Source: bp, 2022

<sup>1</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A108%3AFIN>

<sup>2</sup> Roelf, W. and P. Mukherjee (2022). "Europe looking to get a million tonnes of coal annually from Botswana, says President Masisi", *Reuters*, 10 May. <https://www.reuters.com/business/energy/europe-seeks-million-tonnes-per-year-botswana-coal-says-president-2022-05-10/>

Although the US and Qatar are two significant sources of natural gas supplies to Europe, there has been a growing interest in the supply potential of African gas producers to replace, at least partly, Russian gas exports to Europe. This new European interest in African gas and the current extraordinarily high international gas hub prices<sup>3</sup> have even revived discussions about very ambitious cross-border gas pipeline schemes, such as the Trans-Saharan Gas Pipeline project from Nigeria to Algeria to potentially supply gas to Europe. But is it only simply a question of natural gas supply potential?

## Cautious welcome and hopes

During the last Conference of Parties, COP 26, in Glasgow, African delegates from existing and potential new hydrocarbon producing countries strongly defended the case of natural gas as part of their energy transition strategy and pathway. They argued that international pressure to stop the funding of hydrocarbon development projects was unfair for a continent where about 600 million people have no access to electricity<sup>4</sup> and which generates less than 3 per cent of the world's energy-related carbon dioxide emissions.<sup>5</sup>

Therefore, the unexpected European focus on African gas supplies was cautiously welcomed in Africa with policymakers hoping that this could result in new investment partnerships to develop their natural gas resources and reserves.<sup>6</sup> However, the need for Europe to diversify away from Russian gas is likely to be for short-to-medium term imports, whilst Africa's potential incremental gas export capability during this period is limited.

Europe has, both now and in the future, access to other sources of gas supplies. African gas producers will be competing with growing volumes of flexible US LNG supplies<sup>7</sup> and, by the end of this decade, a significant increase in Qatar's LNG export capacity will augment the potential availability of Qatar's LNG supplies to Europe.

## Current challenges

The continent's current largest gas producers are all struggling to meet the needs of their rapidly growing domestic gas demand. Algeria, Africa's largest gas exporter to Europe, is presently consuming over half of its marketed gas production. Algeria's Sonatrach has recently signed an agreement with Italy's Eni to increase Algerian gas pipeline exports to Italy. But there is no clear information about the precise additional gas volumes to be delivered or their timing. In the short-term, incremental gas supplies from Algeria to Europe would be very limited as the country continues to face natural gas production constraints and rapidly growing domestic gas demand.<sup>8</sup> In Egypt, Africa's largest gas consumer, the country's domestic gas demand is almost as much as its marketed gas production, as shown in Figure 2, and Egypt is currently importing gas from Israel.

In Nigeria, Africa's largest holder of natural gas reserves, gas supply and infrastructure problems remain key constraints to fulfil the country's existing and future gas export and domestic market needs. For

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<sup>3</sup> It should be noted that such high gas price levels are obviously unsustainable over long periods. Also, the upsurge in new LNG export capacity expected by the end of this decade could exert downward pressure on gas prices.

<sup>4</sup> International Energy Agency. "Access to electricity." <https://www.iea.org/reports/sdg7-data-and-projections/access-to-electricity>

<sup>5</sup> International Energy Agency (2022). "Africa Energy Outlook 2022", June. <https://iea.blob.core.windows.net/assets/6fa5a6c0-ca73-4a7f-a243-fb5e83ecfb94/AfricaEnergyOutlook2022.pdf>

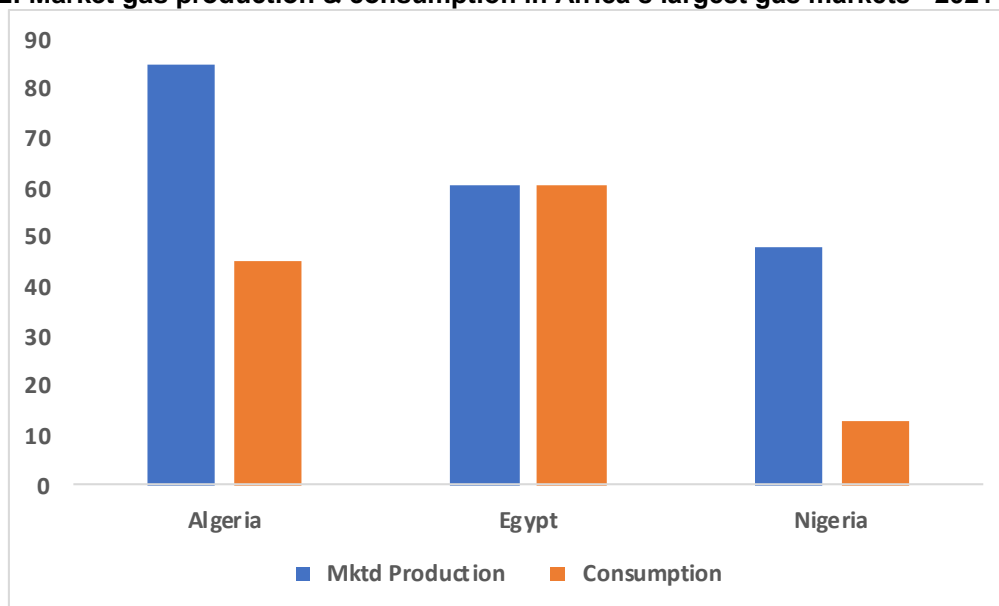
<sup>6</sup> Africa Energy Chamber (2022). "EU Forges Ahead with Africa Gas Deals", 01 June. <https://aecweek.com/eu-forges-ahead-with-africa-gas-deals/>

<sup>7</sup> McCormick, Myles (2022). "US gas exporters sign flurry of deals as Europe searches for supply", *Financial Times*, 22 June. <https://www.ft.com/content/c1b8c308-b189-4a24-af67-6d18902e42c8>

<sup>8</sup> Ouki, Mostefa (2022). "Algeria and the new geopolitics of gas supply" in *Quarterly Gas Review*, OIES, May. <https://a9w7k6q9.stackpathcdn.com/wpcms/wp-content/uploads/2022/05/Gas-Quarterly-Review-Issue-17.pdf>

example, the 20 per cent reduction in Nigeria’s LNG export levels in 2021 was partly due to availability of supply issues.<sup>9</sup> Domestically, although Figure 2 shows that Nigeria’s current consumption accounts for only about 30 per cent of its marketed gas production, there is lot of repressed gas demand, especially in the power sector. It should be noted that Nigeria is presently expanding its LNG capacity, with the seventh liquefaction train of its NLNG plant under construction which is expected to add about 11 billion cubic metres (bcm) of capacity by the second half of this decade.<sup>10</sup>

**Figure 2: Market gas production & consumption in Africa’s largest gas markets - 2021 (bcm)**



Source, GECF, 2021

### Africa’s new gas players

The gas balance situation in Africa’s potential new gas exporting countries is different, however. Due to the limited size of Mozambique’s domestic gas market, the monetization of the country’s large natural gas reserves will essentially consist of LNG exports. Mozambique’s first LNG project, Coral Sul FLNG, with a capacity of about 5 bcm, is expected to be commissioned this year. The much larger (about 18 bcm) delayed Mozambique LNG project is scheduled to come onstream during the second half of this decade. Other large LNG projects are planned in Mozambique (e.g., Rovuma LNG) and Tanzania, but have not reached the financial investment decision (FID) stage yet. Smaller African LNG projects that are also at the pre-FID stage include the next phase(s) of the Mauritania-Senegal LNG project.

Senegal and Mauritania’s often quoted total gas potential of 100 trillion cubic feet (tcf) is mostly categorized as gas initially in place and yet to be developed. Until recently, the prospects for the full development of these gas resources were doubtful.<sup>11</sup> In fact, the second phase of the Mauritania-Senegal Grand Tortue Ahmeyim (GTA) LNG project was reported to have been downsized.<sup>12</sup>

<sup>9</sup> International Gas Union (2022). “2022 LNG Report”, IGU, July. <https://www.igu.org/resources/world-lng-report-2022/>

<sup>10</sup> GIIGNL (2022). “GIIGNL Annual Report 2022”, May. <https://giignl.org/document/giignl-2022-annual-report/>

<sup>11</sup> Concha, Jaime (2022). “Germany Considers Senegal in Global LNG Hunt”, *Energy Intelligence*, 07 June. <https://www.energyintel.com/00000181-29bb-d4bc-af9b-79bfe8fc0000>

<sup>12</sup> *Ecofin* (2021). “La phase 2 du projet gazier GTA au large de la Mauritanie et du Sénégal est en cours de modification”, 10 November. <https://www.agenceecofin.com/gaz-naturel/1011-93046-la-phase-2-du-projet-gazier-gta-au-large-de-la-mauritanie-et-du-senegal-est-en-cours-de-modification>

In central Africa, Italy's Eni is planning the development of a fast-track floating LNG project in the Republic of Congo. With a capacity of over 4.5 bcm, this project is scheduled to be commissioned in 2023.<sup>13</sup>

## New realpolitik and hard realities

But even if the development outlook of potential new African gas provinces has improved, the future monetization of their gas resources and reserves will take time and international funding. The bulk of these new projects' LNG capacity is planned to come onstream during the second half of this decade or later. This is assuming that enough gas volumes will be developed to feed these new LNG plants. Policymakers in existing and potential new African gas producing countries have made it very clear that any significant boost in their natural gas exports to Europe and/or other destinations will require international upstream investments underpinned by long-term offtake agreements. Could international oil and gas companies make such commitments while at the same time complying with long-term international decarbonisation commitments?

The Ukraine war and the ensuing international energy reconfiguration is disrupting, at least in the short term, Europe's decarbonisation ambitions. The European race to secure additional gas supplies from Africa, the US, and Qatar, the reopening of coal-fired power stations in Germany, Europe's largest economy, Europe's potential imports of African coal, plus recent declarations and decisions about the role of natural gas are sending mixed messages about international decarbonisation priorities.

Not long ago, African and other oil and gas producers were told that, "*There is no need for investment in new fossil fuel supply in our net zero pathway. Beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway.*"<sup>14</sup>

But, in its new Africa Energy Outlook 2022, released in June 2022, the International Energy Agency (IEA) states that, "*Africa's industrialisation relies in part on expanding natural gas use.*"<sup>15</sup> It also says that "*With the European Union aiming to halt Russian gas imports towards 2030, Africa in principle could supply an extra 30 bcm in 2030.*" Moreover, during the launch of this Africa Energy Outlook, the IEA's Executive Director indicated that, "*If we make a list of the top 500 things we need to do to be in line with our climate targets, what Africa does with its gas does not make that list.*"<sup>16</sup>

With this new "acceptability" of natural gas as a "climate-friendly" fuel and the EU parliament's very recent vote in favour of a "green" label for gas (though subject to certain conditions),<sup>17</sup> new investment partnerships in Africa's gas development projects are obviously welcome and hoped for. In fact, some companies such as Italy's Eni have already been actively discussing and signing agreements with African gas producing countries (e.g., Algeria, Egypt, and Congo) for the development or expansion of such partnerships.<sup>18</sup>

But Africa's holders of natural gas resources and reserves should have no illusions about the direction of Europe's long-term energy priorities. Furthermore, Europe's policymakers are unlikely to replace Russian risk with new unmitigated country risks to meet their energy needs. In the long run, Europe will remain solidly focused on its decarbonisation agenda. This is reflected in the widely and consistently

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<sup>13</sup> Eni (2022). "The Republic of Congo and Eni agree to increase gas production and supply", press release, 21 April.

<https://www.eni.com/en-IT/media/press-release/2022/04/republic-congo-and-eni-agree-increase-gas-production-supply.html>

<sup>14</sup> International Energy Agency (2021). "Net Zero by 2050 - A Roadmap for the Global Energy Sector", May.

<https://www.iea.org/events/net-zero-by-2050-a-roadmap-for-the-global-energy-system>

<sup>15</sup> International Energy Agency (2022).

<sup>16</sup> Browning, Noah (2022). "Time is running out for Africa to profit from its gas", *Reuters*, 20 June.

<https://www.reuters.com/markets/commodities/time-is-running-out-africa-profit-its-gas-iea-says-2022-06-20/>

<sup>17</sup> Abnett, Kate (2022). "EU parliament supports 'green' label for gas, nuclear investments", *Reuters*, 06 July.

<https://www.nasdaq.com/articles/eu-parliament-supports-green-label-for-gas-nuclear-investments>

<sup>18</sup> Grille, Valentin (2022). "ENI has placed Africa at the heart of its energy transition strategy", *The Africa Report*, 16 May.

<https://www.theafricareport.com/204137/eni-has-placed-africa-at-the-heart-of-its-energy-transition-strategy/>

projected decline in European gas demand starting in 2030. African gas exports will also have to compete with US and Qatari gas exports for a share of a potentially shrinking European gas market.

Nevertheless, there are short-to-medium term opportunities for Africa's existing and new gas producers to export gas to Europe and possibly attract some new upstream investments. But these should not distract African countries from carefully preparing their own energy transition pathways. This includes the use of natural gas and the scaling-up of renewable sources of energy.

Meeting the needs of domestic energy markets is of paramount importance for the economic development of African economies. For a long time, this objective was regularly stated by different stakeholders within and outside Africa, without much happening. Today, the issue of energy security is a major concern for most African governments.

### Concluding thoughts

African economies continue to face the difficult challenge of funding the implementation of energy sector projects, especially hydrocarbon projects. African energy policy makers will have to start, or continue, preparing for all the above-mentioned evolving hard realities and develop their own energy transition pathways. They need to concentrate on making gas supply and infrastructure projects financeable in a challenging financial environment, increasingly constrained by international decarbonisation measures.<sup>19</sup>

Europe's unanticipated new interest in African natural gas supplies is likely to be a short-to-medium term event with some beneficial opportunities for African gas producers. In the long term, Europe will undoubtedly be focused on the significant decarbonisation of its economies. African energy policymakers should not lose sight of their economies' long-term sustainable economic development priorities. This cannot be based, *inter alia*, on short-term hopes that Europe's newfound enthusiasm in African gas will continue in the long run, but on how to successfully address the hard realities of ever-changing international geopolitical and energy landscapes.

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<sup>19</sup> These issues are relevant to both Africa's existing and new gas exporters, as well as to its potential new LNG importers, as outlined in the following OIES publication: Ouki, Mostefa (2022). "Africa's LNG import prospects in an era of high volatility and uncertainties", OIES, June. <https://a9w7k6q9.stackpathcdn.com/wpcms/wp-content/uploads/2022/06/Insight-118-Africas-LNG-import-prospects-in-an-era-of-high-volatility-and-uncertainties.pdf>