

## Featured article

Guest authored by NJ Ayuk\*

# Combating Energy POVERTY in Africa



### NJ Ayuk

Executive Chairman at African Energy Chamber, CEO of Centurion Law Group

### Biography

NJ Ayuk is Executive Chairman of the African Energy Chamber, CEO of pan-African corporate law conglomerate, Centurion Law Group, and the author of 'Big Barrels' as well as Amazon and Wall Street Journal's bestselling 'Billions at Play: The Future of African Energy and Doing Deals'.

### Natural gas and renewables will shape our energy future together

There is an African proverb that says, "the chameleon changes to resemble the world, the world doesn't change to resemble the chameleon".

This has perhaps never been truer than during the past few years. We have all been chameleons, adapting to the previously unforeseen forces of a global pandemic. We have worked from home, kept our distance when we did venture out, made masks a part of our daily attire, and learned to live with the shortages stemming from global supply chain issues.

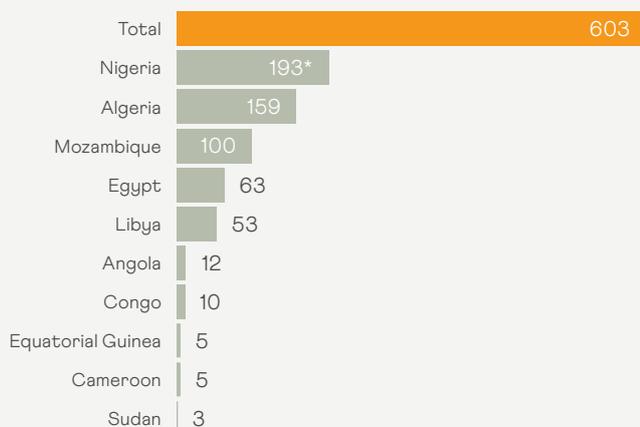
We had no choice but to adjust to what the world was handing us, no matter how much we wanted the world to bend to our will instead.

And just as it looked like Covid-19 was finally receding and some semblance of normality was being restored, we were thrown yet another curveball with Russia's invasion of Ukraine.

It goes without saying that the incalculable human toll overshadows any other consequences of Russian invasion. Still, in our interconnected global society, even those of us thousands of miles from Kyiv, Odessa, or Mariupol are feeling the economic fallout from the war. We've been plunged into a cost-of-living catastrophe, facing a level of inflation not seen in decades. Clearly, much of it relates to shutdowns of Russian energy or sanctions against it, which have increased oil prices and sent natural gas to new records, leading to skyrocketing transportation and food costs.

Given the fact that many member states of the European Union ("EU") rely heavily on Russian energy, especially natural gas, the stakes are even higher.

### Natural gas reserves in Africa as of 2021, by main country (in Tscf)



Sources: Statista 2022, \*BP Statistical Review 2021.

### The Russia effect

In 2021, Russia was the largest exporter of both oil and natural gas to the EU with 40% of the natural gas used in the EU imported from Russia<sup>1</sup>. Since the war in Ukraine (financed at least in part by Europe's energy purchases), Europe has been working to wean itself off of Russian energy — something that is both a pragmatic ideal and long overdue. The EU already banned Russian coal and is toying with the idea of an oil embargo.

As for cutting off supplies of natural gas, that's not on the table, at least not yet. Before the EU can even consider such a move, it has to be certain other producers are able to fill the gap.

No surprise it is looking to Africa to step in. After all, the African continent holds more than 9% of the world's natural gas reserves, totalling more than 600 Tscf in 2021<sup>1</sup>. This represents a tremendous amount of capacity for heating European homes and firing up manufacturing processes.

It helps too that Europe already has an energy import relationship with Africa, taking in both crude oil and natural gas, plus a growing volume of liquified natural gas ("LNG"). In 2021, for example, Nigeria exported 12.63 billion cubic meters (bcm) of LNG to Europe<sup>2</sup>. Granted, Russia sent nearly 31 times that amount during the same period, but when Putin started his sabre-rattling in February 2022, talks began between Nigeria and the EU to increase exports.

Ironically, just months ago, European climate activists were calling for an outright ban on funding African oil and gas projects, saying that fossil fuels had no place in their ambitious plans for a net-zero society.

Europe, of course, has valid concerns about the effects of climate change. But in 2021, amid climbing commodity prices and low wind power output, many European nations found themselves making a sudden about-face and resorting to burning coal to meet their energy needs, rather than clean and reliable natural gas.

That led to a revision of how the EU defines "green energy." Today, according to EU standards, green energy doesn't refer just to wind or solar: Nuclear energy and natural gas can be considered green energy as long as they emit less than 270 grams of carbon dioxide per kilowatt-hour.

In essence, Europe — which had been pressing energy companies to exit Africa and prohibiting investment there — has put out the welcome mat for African natural gas as a cleaner fuel.

Chameleon, meet world.

### A new take on African energy

Europe's increasing interest in African natural gas came more fully into focus in April, when Italian energy Supermajor Eni signed two deals, one with Algeria's Sonatrach and the other with the Egyptian Natural Gas Holding Company, to promote gas exports to Europe. The Sonatrach agreement alone represents 12% of Italy's 2021 gas consumption<sup>3</sup>.

The fact that Algeria already supplies gas to Italy through pipelines facilitates the transport of additional product. In other parts of Africa, though, the lack of pipeline infrastructure remains a barrier to expanding exports.

Currently, there are only four pipelines that transport gas directly from Africa to Europe, all of them located in North Africa. It will take a concerted effort, as well as dedicated funding, to build pipelines in sub-Saharan Africa and connect them with the existing network.

Some of that work is already underway.

For example, the 614km Ajaokuta–Kaduna–Kano (AKK) pipeline will transport natural gas from southern Nigeria to central Nigeria. It is Phase One of the 1,300km Trans-Nigerian Gas Pipeline (TNGP) project, which will use Nigeria's surplus gas resources for power generation and consumption by domestic customers, and part of the proposed 4,401km Trans-Saharan Gas Pipeline (TSGP) to export natural gas — as much as 30 billion cubic meters — to customers in Europe.

**“After all, the African continent holds more than 9% of the world’s natural gas reserves, totalling more than 620 Tscf in 2021. This represents a tremendous amount of capacity for heating European homes and firing up manufacturing processes.”**

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## Featured article continued

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His Excellency Former President Issoufou Mahamadou signing the Niger-Benin oil pipeline at the first stone ceremony for the Niger-Benin pipeline ceremony held in Koulélé, Agadem, Niger in September 2019. The c. 2000km export pipeline is expected to transform Niger into a major oil producer in West Africa, delivering significant economic growth for the country and the people of Niger

### A new take on African energy continued

The AKK pipeline is expected to cost US\$2.5 billion, most of that funded by Chinese banks<sup>4</sup>. China, in fact, is the top lender to the continent, holding 21% of Africa's external debt<sup>4</sup>.

While Beijing has been, so far at least, willing to refinance debt in the post-pandemic economy, the continent remains vulnerable to China's whims. We have to ask ourselves if it really makes sense for African gas to be transported to Europe on pipelines paid for by China, especially when the possibility of at least one home-grown alternative exists: African energy banks<sup>4</sup>.

Inspiration for what I'm talking about is as close as the African Export Import Bank (Afreximbank).

### An African solution for Africa

Founded in 1993 through a consortium of African governments and public and private investors, Afrximbank finances and promotes intra-African and extra-African trade. Between 2015 and 2019 alone, Afrximbank disbursed more than US\$30 billion in support of African trade, including more than US\$15 billion for the financing and promotion of intra-Africa trade<sup>5</sup>.

I believe that by financing natural gas, oil, and renewable energy projects, African energy banks will advance the continent's energy sector, accelerate Europe's pivot away from Russian energy, and bring Africa out of entrenched energy and economic poverty. In addition to achieving these critical objectives, national energy banks will also send a clear signal to the marketplace that Africans can become leaders in scaling up private capital.

The likelihood of African energy projects receiving African funding is greater than ever. I say that because that is one of the primary goals of the newly formed Team-Africa Energy Initiative, a partnership of the African Energy Chamber, the United Nations ("UN") Economic Commission for Africa, and the secretariat of international organisation Sustainable Energy for All. Team-Energy Africa Initiative plans to support African states that embrace sustainability and pro-investment policies by unlocking capital for their clean energy projects. Harnessing their business relationships and connections, initiative members will encourage cooperation among Africa's private sector and African states, along with development partners and international financiers, to mobilise much-needed clean energy finance.

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To be clear, though, when I say, “clean energy,” I am not only referring to solar, wind, and hydrogen power, but also to natural gas, which as I say earlier, is starting to gain acceptance as a form of “green energy”. The Team-Energy Africa Initiative was founded upon the idea that discussions about Africa's energy future must factor in Africa's unique needs and priorities. Natural gas still has a major role to play in gas-to-power projects to help alleviate Africa's widespread energy poverty, along with economic growth and industrialisation. So, for now, directing capital to African gas projects remains critically important.

We are seeing the results now of the West's aggressive push to halt African oil and gas investment in the name of climate protection. The boycott, if you will, caused production to stagnate in several African nations. Equally disconcerting, planned African capital expenditures for oil and gas projects fell by one-third, from US\$90 billion in 2020 to US\$60 billion in 2021<sup>6</sup>.

Despite that, however, Africa has remained a premier target for exploration activity and recent successes are giving companies something to build on.

Africa has the potential to provide power to its people and energy to more of the world. Scaling up investment can turn that potential into reality.

### Renewables in the mix

Having eager European markets for African natural gas represents a tremendous opportunity. At the same time though the world expects Africa to accelerate our energy transition away from fossil fuels, even though energy use is so low that in some places the average person consumes less energy per year than a single American refrigerator<sup>7</sup>. Altogether, sub-Saharan Africa generates just 4% of global carbon emissions<sup>7</sup>.

This puts Africa at a crossroads. We feel that we should transition on our own timetable and without abandoning our natural resources. The road to renewable energy should not be littered with the economic well-being, energy security, and stability of the world's developing nations.

Yet we do have a responsibility as a global citizen to work towards net-zero. And we know that there are ample benefits of mitigating climate change other than the obvious.

For example, increasing the production and use of renewables stands to result in job creation, economic growth, and social and health benefits. The International Renewable Energy Agency ("IRENA") says that renewables will create 45 million jobs around the world by 2050 and lead to a 2.4% rise in global GDP<sup>8</sup>. And, frankly, without a strong, diverse energy mix, we won't be able to produce enough electricity to support the forecast doubling of the population over the next 25 years.

Although we lag behind the West slightly in terms of wind and solar, progress toward a more renewable Africa is heartening.

Look at Niger, which has joined with Savannah to develop the country's first wind farm. It's slated to generate 250 MW that will be incorporated into the national and regional electricity grid. Not only will this help alleviate energy poverty in West Africa, but it is also expected to be an example for other renewable-rich countries.

To expand on that potential, a consortium led by the African Energy Chamber has established the Green Energy Dialogue Initiative. It marks a significant step for the African energy sector, creating new opportunities for an enhanced conversation about green energy and paving the way for accelerated investment and development across the green energy space in Africa. Founding members include the Ministry of Hydrocarbons of the Republic of Congo, the Ministry of Mines and Hydrocarbons of Equatorial Guinea, the Ministry of Petroleum and Energy of Senegal, and the office of the special representative of German Chancellor, Olaf Scholz, in Africa.

Developing our renewable resources speaks to the importance of diversity — as we are seeing right now, a lack of producer diversity and overreliance on a single source (or even a single resource) is a risky venture with sweeping implications. In this world, there's a place for fossil fuels and renewables in a sustainable and balanced energy mix and, like a chameleon, Africa is changing to adapt to both.



Savannah's Uquo Central Processing Facility in Nigeria which delivers gas enabling over 10% of thermal power generation in Nigeria

## Footnotes

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\*Please note that the opinions expressed in this article are those of NJ Ayuk, Executive Chairman at African Energy Chamber, CEO of Centurion Law Group. They do not purport to reflect the opinions or views of the Company.

1. Source: Statista, Natural gas reserves in Africa as of 2021.
2. Source: S&P Global 2021, Nigeria EU to consider 'all options' for increased LNG deliveries.
3. Source: Business Insider 2022, Europe's reliance on Russian gas imports has become a problem amid the Ukraine war. Now, it's looking to Africa for alternatives.
4. NS Energy Business 2021, Ajaokuta–Kaduna–Kano (AKK) Gas Pipeline.
5. Source: Afreximbank 2020, Afreximbank recognized for its role in promoting intra-African trade by the Africa-America Institute (AAI).
6. PwC 2021, Africa Energy Review 2021.
7. Foreign Policy 2022, Germany should Look to Africa for Gas, Not Russia.
8. Energy Chamber 2022, The State of African Energy 2022