

Grid investment & gas-fired power at the heart of Nigeria's economic transformation & energy transition

By 2050, Nigeria will become the world's [third most populous country](#). Its population will roughly double to 400 million people – [75% of whom](#) will live in cities. This rapid urban growth will mean unprecedented electricity demand for end uses in industry, buildings, and transport. Yet, at less than 200kWh per year, the average Nigerian currently uses less electricity than an American uses just to [power their refrigerator](#). This level of consumption is insufficient to power the economic development required to improve productivity and create jobs for the millions of Nigerians joining the workforce every year. Given that the vast majority of Nigerians will live in cities, it makes sense to prioritize meeting urban energy needs.

4 things an urban-focused energy strategy for Nigeria must do:

- 1. Prioritize grid expansion in cities, and off-grid solutions in rural and underserved areas.** [Over 100 million](#) Nigerians already live close to the grid, and the grid currently remains the lowest-cost, most sustainable means of serving the scale and intensity of energy demand in densely populated hubs of economic activity. Nigeria's young and urban population aspires to similar levels of productivity and living standards as their global counterparts. Small scale off-grid interventions will be crucial to meeting needs in remote areas and for the lowest-income groups, but cannot support productive economic activity at the scale necessary to raise incomes sufficiently such that millions of Nigerians are able to consume electricity at modern levels.
- 2. Financially strengthen utilities.** Currently, utilities serve a largely poor residential customer base, resulting in insufficient cash flows, constrained financing capacity, and underinvestment in infrastructure. Serving more commercial and industrial (C&I) customers — who have sizable anchor loads and a higher capacity to pay will lead to more bankable T&D infrastructure projects. Reliable electricity supply to these firms will also improve productivity and add millions of higher-paying jobs. And with key infrastructure in place, the marginal cost of extending electricity access to proximal urban households with growing incomes and demand will decrease.
- 3. Balance utility renewable ambitions with gas.** Utilizing Nigeria's relatively cheap and abundant natural gas reserves will remain an important component of the country's energy transition. As its share of renewables grows, natural gas will play an increasingly important role in ensuring electricity reliability until energy storage technology becomes cost-competitive at scale.
- 4. Invest in Nigeria's future low-carbon grid.** Investment in the existing grid will also pay off on climate goals, as zero-carbon technologies need a functional and robustly interconnected grid to reach progressively higher penetrations. Expanding grid infrastructure is critical to Nigeria's ability to transition to low-carbon electricity generation as cleaner technologies become competitive enough to slow the growth of gas-fired generation.

Ending public finance for gas in Nigeria will hinder this future – we need a rational and inclusive approach to energy transitions.

Transitioning to a low-carbon future is essential, but the complexity of the challenge requires deliberate inclusion of diverse African perspectives from business, policy, and academia to develop solutions that don't disproportionately burden countries that contribute minimally to climate change. Climate discussions should focus on high-impact decarbonization pathways that meaningfully contribute to achieving a low-carbon future without slowing the trajectory to economic prosperity for millions of Nigerians.

The push to [limit public financing for gas and prioritize “feasible” clean energy alternatives](#) may lead to a focus on [expensive off-grid electrification strategies](#) that can't drive economic growth and are ill-suited to serve the majority of electricity demand in Nigeria. The [recent gas supply crunch and surge in coal generation](#) also foreshadow how prematurely curtailing gas finance could be detrimental to both energy security and emission reductions. Rather than curtail gas financing, cost-effective solutions to improve energy efficiency and reduce methane emission and flaring will lower the carbon intensity of gas operations and enable continued sustainable use of gas.

The sentiment of climate activists resonates deeply as everyone becomes increasingly concerned by the effects of climate change on our environment. But demonizing the businesses and countries that meet customer demand for cheap, reliable energy with such fuels is counterproductive – especially as a transition to net-zero involves continued reliance on fossil fuels for various uses including materials for solar panels, wind turbines, and electric vehicles. Constraining financing to natural gas will result in missed opportunities for technological innovation such as emission and flares reduction, energy efficiency, and negative emission technologies like carbon capture, utilization, and storage, all of which enable more sustainable use of this fuel to provide energy security.

It will take between [\\$100 trillion and \\$200 trillion](#) in new capital to reach net zero emissions by 2050. Energy companies are mobilizing their vast financial resources and engineering skillsets to effect a transition to a low-carbon economy. These financial resources and skills are critical to realizing Nigeria's ambitions to diversify its productive capabilities.

Until rich countries increase their expenditure on the research and development needed to lower the cost of low-carbon technologies, gas-fired power generation will continue to be essential to drive Nigeria's economic growth and meet the rapidly growing electricity needs of its price-sensitive population. A dogged insistence on unaffordable energy sources inevitably results in relegating future generations of Nigerians to poverty and insecurity – an outcome any rational climate activist should find unacceptable.