

Africa on the cusp of a new energy paradigm - Kearney paper

According to a recently published white paper from Kearney, [A new energy path to viability for African utilities](#), Africa is on the cusp of a transition into a new energy paradigm, one in which technological and commercial innovations are delivering increasingly decentralised power in new ways.



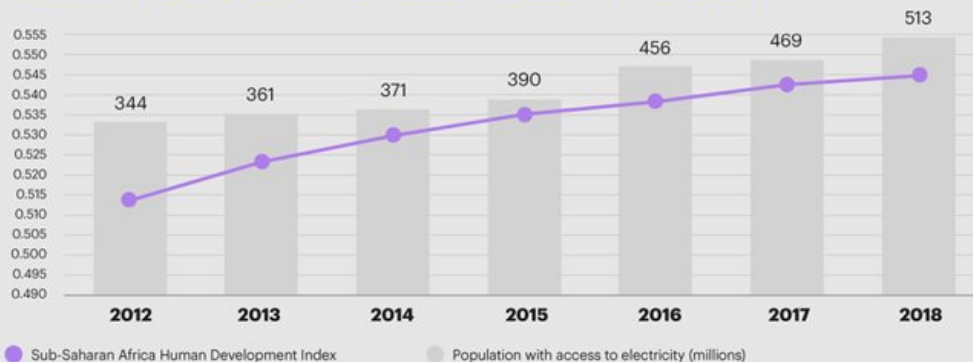
Source: Supplied

The paper outlines the overarching strategic considerations for African utilities to forge a path to sustainability amidst the backdrop of this global paradigm shift, unpacking the broader macroeconomic trends that are shaping the transition.

Kearney partner Igor Hulak explains the dual mandate shouldered by energy utilities in Africa, which play an integral role on the continent. “Availability of power is essential for economic growth, and, even more importantly, for social development. Utilities must provide sufficient, affordable power for both these imperatives,” says Hulak.

A society's development depends on access to power

Sub-Saharan Africa's electricity access and Human Development Index growth

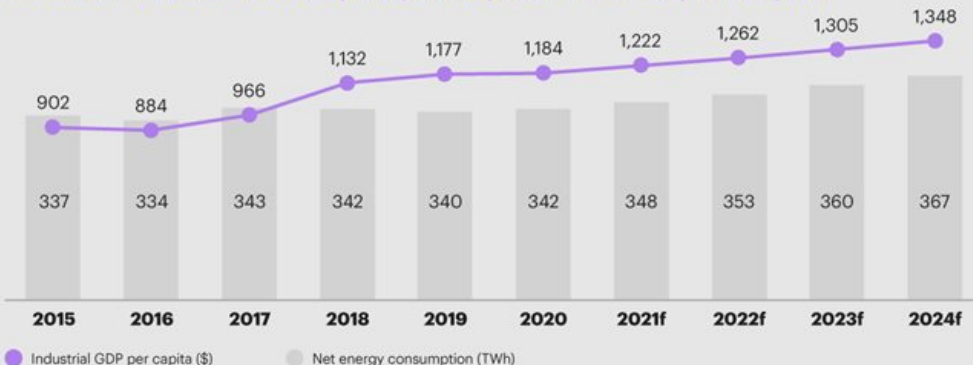


Sources: United Nations Development Programme, World Bank; Kearney analysis

He added that adequate electricity supply prefigures a nation's overall economic development. Conversely, insufficient availability of power has been identified as a key obstacle facing African businesses, having been ranked first in sub-Saharan Africa ahead of other challenges like finance, informality, corruption and taxes.

Power is essential to industrialization

Sub-Saharan Africa's share of GDP per capita compared with electricity consumption



Sources: EMIS, The Economist, International Monetary Fund; Kearney analysis

Transition drivers

The three key drivers behind the transition to the so-called 'new energy world': decarbonisation, decentralisation, and digitalisation, are also facilitating the historical trend of nations to liberalise their energy sectors as they grow and develop economically. In most African states, liberalisation has not yet begun in earnest, and integrated state-controlled monopolistic vertically integrated utilities (VUIs) are still responsible for all of the sector's main functions: generation, transmission and distribution, or sales. Some states like South Africa, Nigeria, Kenya, Ghana and Egypt are in the initial phase of liberalisation and have seen the emergence of independent power producers (IPPs) whose power and capacity is being sold to the VUI under long-term power purchase agreements.

Access to power is the biggest obstacle for businesses in sub-Saharan Africa

Top five major or severe constraints that businesses face

	Sub-Saharan Africa	East Asia and Pacific	Europe and Central Asia	Latin and Central America	South Asia	Middle East and North Africa
1	Power	Corruption	Tax rate	Corruption	Political instability	Corruption
2	Finance	Power	Political instability	Skills	Power	Political instability
3	Informality	Skills	Power	Power	Corruption	Land
4	Corruption	Political instability	Corruption	Tax rate	Finance	Power
5	Tax rate	Tax rate	Skills	Political instability	Land	Informality

Sources: IEG World Bank's The Big Business of Small Enterprises; Kearney analysis

“African leaders are strategically planning for the natural transition into the more organic market of the next liberalisation stage over the next years in which parastatal VUIs are legally and functionally unbundled into separate entities for generation, transmission and sales,” Hulak remarks.

“While European utilities unbundled largely from a position of strength, Africa’s embattled utilities face a very different reality. The many challenges in commercialising operations and managing an unbundled power network are daunting and complex. Unbundling won’t be an easy road, but we need to face the obstacles head-on if we want to ensure a sustainable African power sector,” says Hulak.



COAL, OIL & GAS

Resilience the key to unlocking successful independent power projects in Nigeria

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Benefits of unbundling

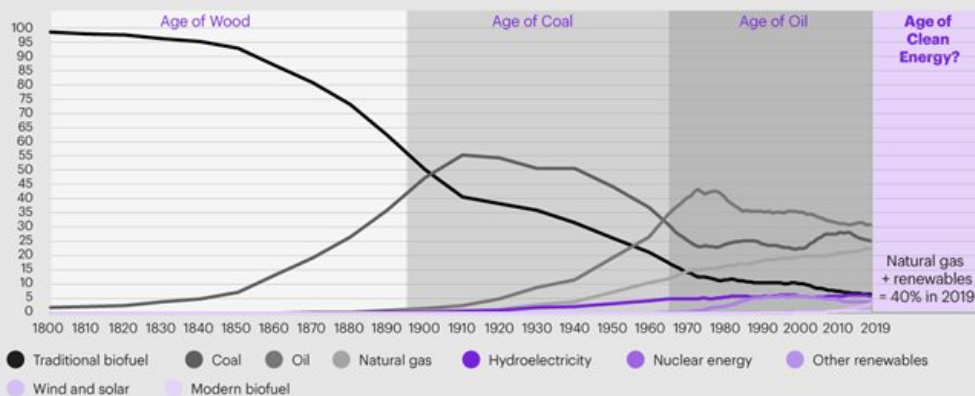
He notes that unbundling brings three significant benefits: transparency, competition, and the potential for private sector participation. The increased competition drives production efficiencies, as well as services and collection.

In the later phases, VUIs are fully unbundled and there is a vivid environment of private sector participation both distribution and sales, giving rise to a healthy competitive wholesale market. These hybrid business models have already been implemented in much of Europe, Asia, and the Americas.

Because of the historical timing of liberalisation in Africa, African states stand to benefit from the advent of cost-competitive renewables and are embracing decarbonisation as they embark on their journeys toward liberalisation.

“African utilities now have the chance to leapfrog over many of the steps taken by other nations on the path towards liberalised energy supply,” explains Hulak. “Technological breakthroughs, economies of scale, state-incentivised decarbonisation, and a culture of innovation are seeing African power producers leverage the continent’s abundant wind and solar resources. Renewables are fast becoming a prime contributor to Africa’s energy mix.”

The world is moving toward a new age for energy



Africa VIUs beset with myriad difficulties

Kearney’s white paper delves into pertinent African utility case studies on South Africa and Ghana and look at the lessons that can be drawn from their efforts thus far.

It notes that several African VIUs, including Eskom, are beset with myriad difficulties arising from inadequate infrastructure maintenance. In monopolistic models, the lack of competition means that there is little incentive to improve efficiencies.

“Many monopolistic VIUs in Africa are now commencing unbundling from a compromised position of over-reliance on government subsidies. In this archaic model, state-run VIUs are heavily subsidised, with funds drawn from other more profitable economic sectors. The artificially reduced household tariffs yielded by such systems bridge the affordability gap, but ultimately these models are unsustainable, and usually result in the utility’s indebtedness, especially when subsidies fluctuate with shifting government priorities,” Hulak explains.

Several years ahead of most African states in the modernisation and development of their energy market and lauded as power sector leaders on the continent, Ghana has pioneered a path that other African VIUs can learn from as they modernise and develop their energy markets.



Power station in Accra. Source: Supplied

Reform, innovation in Ghana

Like several other African VIUs, Ghana also commenced unbundling from a weak position, amidst a challenging socioeconomic context. Initially, the sector was unbundled into separate generation and transmission utilities, with regulatory bodies created in parallel for: technical regulation and licensing; as well as for economic regulation and tariff setting. This unbundling was an initial step for the later introduction of IPPs to the national energy mix and establishment of the wholesale electricity market for bulk customers.

Ever since, Ghana has continued the path of reform and innovation in the power sector, including the attention of introducing private-sector participation in electricity distribution. Even though this initiative has not yet succeeded, it does not undermine the fundamental directional rightness of the course the country is pursuing.

In summary, Hulak notes that Africa's traditional VIUs have the opportunity to embrace the new energy world rather than fight it – by leveraging their already existing expertise and resources to expand their product and service portfolio in a customer-centric way.

“Africa's power sector can be fast-tracked into the new energy transition, with insights gleaned from other places where unbundling has already begun in earnest. The strategic dilemma for African governments now is whether to focus on imported technologies for decentralised solutions or to develop integrated networks. The latter path requires more time and investment, but would boost local economies,” he concludes.