

African transmission – The unsung hero

Africa's next power-finance cycle will be shaped less by what gets generated than by what can be moved. **BY TOM JAMIESON**, partner, and **GORDON STEWART**, partner, **BRACEWELL (UK) LLP**.

From South Africa's transmission procurement push to Uganda's first independent transmission project and the mining corridors of Central and Southern Africa, the market is starting to test whether transmission can become a financeable asset class rather than just a public-sector obligation.

For years, generation has been the lead singer of the development band, with capital and human resources focused on delivering more megawatts of generating capacity. The question was whether a solar park, gas plant, hydro scheme or wind farm could secure a long-term offtaker and a debt package to match. Transmission sat in the background, usually as a constraint, a delay item or a sovereign problem to be solved without the assistance of the private sector. In 2026, that hierarchy is changing. The issue is no longer simply whether power can be produced. It is whether it can travel to where it is needed.

That matters because transmission is often seen as harder to finance than generation. A power plant can traditionally point to a contracted, long term, revenue stream. A transmission project often creates value that is obvious economically but more difficult to isolate contractually. It may reduce congestion, widen access, strengthen resilience, connect renewable resource to demand centres, support growth or further enable cross-border trade.

All these things matter. However, they do not automatically produce the sort of ringfenced cashflow that project financiers instinctively like. That is why sovereign borrowing and utility balance sheets have remained the dominant tools for the sector. It is also why the current experimentation with alternative structures matters so much. The continent is not simply building more transmission lines. It is trying to work out who pays for the grid of the future, and on what terms.¹

Key drivers

The oldest driver of transmission investment remains the strongest – connectivity. A bigger, better-connected grid allows countries to manage a broader load base, improve reliability, reduce curtailment losses and connect economic activity that would otherwise remain stranded. In much of Africa, this still has a direct link to GDP growth and development targets. Transmission is not only an engineering tool; it is growth infrastructure. Uganda's Amari project is framed in exactly those terms. Gridworks, the developer, notes that the project will improve reliability and quality of supply to industrial users, support manufacturing competitiveness, reduce system losses and prepare the network for additional generation and future regional trade.

The renewables buildout over the past decade has made the issue more urgent. New solar and wind capacity can be financed relatively quickly, but it cannot create full system value if the grid cannot absorb, balance and transport the output from the optimal siting of the relevant plant to the main load

centres. South Africa is the clearest example of this. The country's best wind and solar resource is not always located near its main load centres, and transmission has increasingly become the bottleneck to continued investment in renewable, and particularly wind, power.

South Africa's National Treasury said in 2025 that South Africa needs more than 14,000km of new lines over the next decade to integrate around 53GW of additional generation capacity. That figure is not only describing a planning gap, it is redefining the next frontier of energy finance in the country. Transmission is no longer support infrastructure for generation; it is increasingly the gating item.

Investment in mining and commodities is another reason the market is moving. In 2026, a mine's competitiveness is increasingly determined by whether it has a credible route to market and a resilient power solution, as much as the minerals in the ground. Reliable baseload power is often part of the equation, and access to the wider national or regional grid can be central to that solution. The proposed Kalumbila-Kolwezi interconnector captures that logic neatly. Enterprise Power DRC says the project is being developed to export power from Zambia into Katanga to meet mining demand in the DRC. The line is therefore not just an electricity project. It is part of the wider infrastructure architecture of the copper belt, and a reminder that transmission can be driven by concentrated industrial demand as much as by traditional public-service planning.

Regional interconnection adds a further layer. The Southern African Power Pool and Eastern Africa Power Pool have long been discussed as ways to increase access to reliable, base load, power and play to the strengths, and dampen down the weaknesses, of the region as a whole. A functioning power pool reduces stranded-asset risk by widening the universe of potential offtakers, and creating a more liquid market. It also helps manage localised resource volatility. Low hydro output in one basin, wind surpluses in another region, or thermal outages in a particular system are easier to handle when power can move more freely across borders.

However, both SAPP and EAPP require significant investment in upgrading and expanding the inter-state interconnectors to properly capture the latent benefits of the system. The Ethiopia-Kenya HVDC interconnector is an excellent example of this. The World Bank says Kenya is now importing cheaper renewable electricity from Ethiopia through the Eastern Electricity Highway, and has described the project as the first publicly financed HVDC line in sub-Saharan Africa. That matters not only because the line has been built, but also because it shows what happens when a transmission asset starts to function as a corridor for trade rather than merely as a way to move electrons.

Finally, there is one other driver emerging: the rise of traders and market intermediaries. Africa is still early in this cycle, however as power pools deepen and traded electricity becomes more normalised, the role of commercial actors in underwriting route-to-market risk may grow. Traders are already used to structuring around volume, location, tenor and basis risk in other commodity markets. In power, that capability could become relevant not only in offtake arrangements, but also in the way transmission-linked revenues are supported, warehoused or

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monetised. These structures are in their infancy, and yet it is no longer far-fetched to think that traders could become part of the credit picture where the commercial value of a line is increasingly tied to market access and dispatch flexibility rather than to a single utility payment stream.

Investment structures

Thus far sovereign financing has been the default model. It is well understood, often politically expedient and still best suited to infrastructure that governments regard as strategic. The Ethiopia-Kenya interconnector illustrates the point. The project was financed and delivered through a public-sector and multilateral framework, supported by institutions including the World Bank and AfDB, rather than as a private concession or independent transmission project. This model has obvious attractions. It can move quickly when the state is aligned, it does not require the full construction of a commercial tariff architecture from scratch, and it is capable of recognising system-wide benefits that would be difficult to monetise in a narrow project-finance structure. It is also a structure that most governments and the sovereign debt/ECA teams know well and are comfortable with.

That said, sovereign finance is not a complete answer. Fiscal headroom is limited, and the scale of grid expansion now required in several markets is too large to be funded comfortably on public balance sheets alone. As such, alternative structures are required. From a menu of potential options, three structures stand out as more likely candidates for realising private investment in transmission.

Concessions have often looked attractive in theory but difficult in practice. The problem is not conceptual so much as institutional. A concession, particularly one that depends on some form of regulated asset base, requires confidence that the relevant government entities can implement tariff adjustments and contractual discipline over a long period. In many markets, that remains sufficiently uncertain so as to discourage participation from the private sector.

The fact that the best-known African private utility concessions have tended to emerge in distribution rather than transmission is itself revealing. Uganda's Umeme precedent, and the controversy surrounding the buyout process at the end of the concession term, is a reminder that long-duration public-private risk allocation in long-term concessions remains politically and legally delicate even where the model is relatively mature.

That is one reason build-and-transfer structures have intuitive appeal. Some developers are willing to take development and construction risk, but do not want to manage long-term maintenance and availability once the line is energised. A build-and-transfer or build-transfer-with-annuity model can therefore be attractive, especially where governments want private delivery discipline without giving up ultimate control of the asset, and/or local regulation precludes private ownership of transmission infrastructure (as is currently the case in Ethiopia).

However, this structure by transferring ownership and responsibility at commercial operations, limits the project's and therefore the lenders' security simply to a long-term contracted annuity payment uncoupled from the underlying asset. Ensuring that such payment is sufficiently protected and supported by the relevant government agencies is obviously critical to creating a bankable structure.

Already well utilised in South America, the ITP or independent transmission project model goes a step further. In effect, it mirrors the classic emerging market IPP risk and contractual structure and applies it to grid infrastructure: define the system need, allocate delivery and financing obligations to the private sector, and create a sufficiently bankable payment and risk-allocation framework to support private debt and equity. In practice this means replacing the classic power purchase agreement with a transmission services agreement, an agreement which shares much of the same structure and apportionment of risk found in a traditional emerging market PPA, while providing for a long-term fixed tariff based off the developer ensuring that the line remains available throughout the period of operations – ie, like a thermal plant, the developer takes the risk of availability, not usage.

However, unlike a thermal power developer, the developer of an ITP has the significant, additional consideration of how to acquire and/or have access to and compensate the occupants of the vast tracts of land which are required to construct, operate and access the transmission line, including locations for the pylons, overflight for the lines, and sites for the substations. In that respect, transmission risk is more linear, more exposed and often more political than plant risk. That is one reason governments will likely remain more heavily involved even where private capital is brought in.

South Africa is now attempting to use this structure with its ITP programme. Launched in 2025, the IPP office has put together a programme which is looking to fit the specific nuances of developing and operating infrastructure asset hundreds of kilometres in length and an updated form of government support, into the same procedural and contractual framework found in REIPPP.

Within the myriad technical questions are some simple legal concerns: who secures land rights and corridor access, who takes compensation risk, what form of credit enhancement is needed to bridge the gap between sovereign aspiration and project-finance discipline? As has been the case for private offtake and traded power, South Africa, and its ITP programme, may become an incubator for a transmission finance structure which can be exported across the wider region.

Joining the dots

While there is now much better alignment between the economic drivers for investment and the types of structures available to support private capital, the next phase for African transmission will be defined not by whether physical interconnection can be built, but by whether it can be turned into functioning trade infrastructure. That is the real frontier. A line becomes much more valuable once it supports repeatable bilateral trade, wheeling, balancing and access to a broader pool of buyers and sellers. At that point, the commercial identity of the asset begins to change. It is no longer just pylons and wires. It is a route to market. If that transition continues, the financing models available to transmission will widen, and with it a clear line to increased growth, energy security and economic stability. ■

Footnote

1 - Worldbank.org