African Development Bank
Power, Energy, Climate & Green Growth Complex

“OPPORTUNITIES FOR FINANCING AFRICA’S ENERGY INFRASTRUCTURE PROJECTS IN LOCAL CURRENCY”

AFRICA LONG TERM FINANCE 2022 WORKSHOP
28-30 November, 2022

Wale SHONIBARE | Director
Energy Financial Solutions, Policy and Regulation
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| 02 | Rationale for Local Currency (LCY) Financing |
| 03 | Facilitating more LCY Financing: AfDB Initiatives and Case studies |</p>
<table>
<thead>
<tr>
<th>1964</th>
<th>81</th>
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<tr>
<td>year when the AfDB was established</td>
<td>member countries, incl. all 54 African countries</td>
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<th>125</th>
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<td>percent capital increase in 2019</td>
<td>billion dollar of authorized capital</td>
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<td>ratings with a stable outlook from all main rating agencies</td>
<td>billion dollars of outstanding loans with an attractive pricing</td>
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<td>strategic priorities to accelerate Africa’s development</td>
<td>billion dollars of approvals in 2019 for public and private sector operations</td>
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Country Office
Regional Hub
Headquarters
MORE THAN USD 20 BILLION IN SUPPORT OF THE ENERGY SECTOR IN AFRICA

USD 20.4 billion committed to energy sector projects since 2000, of which USD 16.4 billion for the public sector and USD 4 billion for the private sector

More than 3.7 million connections to the grid since 2000, and 560,000 off-grid connections since 2018

+18.5 GW of additional installed energy, of which 5.4GW from renewable energy resources

+22,500 kilometers of transmission lines constructed, of which 9,800 are regional interconnections

+102,000 kilometers of distribution lines constructed
Governments’ ambitions to reach universal access by 2030 require an eight fold increase in power sector investment, mostly in low-carbon generation and grid networks.

Capacity additions have only increased by 7% since 2019, mostly driven by progress recorded in Northern and South Africa.

Making up for the current deficit of energy supply and maintaining grid infrastructure is projected to cost appr. USD 25 billion per year.

Africa’s electricity generation mix varies across the sub-regions of the continent, shaping different energy transition pathways

Sources: Pathways to a renewable energy future in Africa, UN High-Level Champions Team, 2021; Tracking SDG7 database; International Energy Agency database; AfDB analysis

**North Africa**
- Gas is the main source with 77% of total production
- Growing emphasis on utility-scale solar, wind and green hydrogen

**West Africa**
- Gas is the main source with 49% of total production
- Nigeria accounts for almost 50% of the total production of the region
- Unreliable grid supplemented by a growing off-grid sector

**Central Africa**
- Hydro is the main source with 77% of total production
- High dependence on aging assets

**South Africa**
- Coal is the main source, with 90% of total production
- Mature IPP market but poorly maintained power system with acute load shedding issues
- Increasing pressure to decarbonize the national power system

**East Africa**
- Hydro is the main source with 65% of total production, but geothermal production is growing in the Rift Valley
- Established off-grid solar sector that has been effective in establishing last-mile connections

**Southern Africa (exc. South Africa)**
- Hydro is the main source with 64% of total production
- Mozambique and Tanzania account for 42% of the total production of the region
- Large and mostly untapped gas assets
FINANCIAL INSTRUMENTS FOR THE PUBLIC AND THE PRIVATE SECTOR

- **The African Development Bank** is Africa’s premier development financial institution with the mission to spur sustainable economic development and social progress in its Regional Member Countries (RMCs). The Bank is rated AAA by top agencies and presents 0% risk weighting under Basel II.

- The Bank achieves this objective by:
  - Mobilizing and allocating resources for investments in Africa in the form of a wide range of instruments customized to the projects and clients;
  - Providing policy advisory and technical assistance to support development efforts.

- Beyond financial products, the offer of the African Development Bank comes with value add:
  - African markets: decades of experience as one of the largest multilateral source of guarantee, debt and equity financing in African markets;
  - Full cycle capital access: we can leverage the Bank’s funds and seamlessly deliver financial products according to company maturity;
  - Sector experience: deep technical knowledge and expertise, with access to energy specialists based across the continent;
  - Patient capital: long-term investment horizon with impact capital;
  - International network: with a diversified network across stakeholders, we can introduce companies to co-investors, potential clients, and other strategic partners.

LENDING INSTRUMENTS
Providing long-term debt to public and private sectors

GUARANTEES
Mitigating the risks attached to investments in Africa

EQUITY PARTICIPATION
Bringing scarce risk capital to transformative projects

SPECIAL FUNDS
Providing specific solutions for investments in the renewable energy market
01  Background and Key Trends in Africa's Energy Sector

02  Rationale for Local Currency (LCY) Financing

03  Facilitating more LCY Financing: AfDB Initiatives and Case studies
Rationale for Local Currency Financing (1/2)

The public policy case for greater local currency financing is in part based on mitigating foreign exchange (FX) rate risks, but also in terms of developing local financial markets.

**FX Risks**

- Occurs because the main forms of finance for energy infrastructure projects are provided in hard currencies.
- This is an acute problem as most African domestic currencies – to varying degrees – have systematically fallen in value against hard currencies such as the US dollar over an extended length of time.
- Some African currencies have been prone to significant volatility, which can be difficult to manage from a treasury perspective. This is particularly the case in countries which rely on export of a single commodity as their primary means of generating foreign exchange time.
- This is problematic because the tariffs for the provision of energy services financed in hard currencies have to be adjusted to reflect the decline in revenue received from customers in local currencies.
- Where the local currency experiences an extreme fall in value it can be politically impossible to increase the tariff to the required levels, ultimately affecting the sustainability of the project.
- Figure 1 illustrates how the exchange rates of the Ghanaian, Kenyan, Nigerian, and Tunisian currencies moved against the US dollar over a ten year period; it shows that all of the currencies have experienced a significant loss in value, particularly the Ghanaian cedi which lost 73% of its value in 2010.

![Figure 1: Exchange rate movements of selected African currencies against the US dollar (December 2009 – 2019)](Source: Bloomberg, CEPA Analysis)
## Rationale for Local Currency Financing (1/2)

### Developing domestic capital markets

#### Current Constraints:

- **Hard Currency financing dominates energy finance, particularly across all modes of renewables.**

- **In the case of IPPs, apart from countries with deeper financial markets, such as South Africa, DFI project finance is the main model used to take projects to financial close. The level of participation by local commercial banks and institutional investors is very limited.**

- **The EXIM bank approach, widely used by the Chinese for example, provides low cost debt typically in US dollars, in exchange for a specified level of Chinese inputs or content. However, it also usually requires that the host governments take on most of the project risk through a sovereign guarantee.**

- **The DFI approach on the other hand, does provide for the possibility to take on more project risks without necessarily requiring a sovereign guarantee. However, the fact that debt is held to term has the effect of preventing local institutional investment that may prefer operational and local currency denominated assets to match with long term local currency-denominated liabilities (such as pensions).**

#### Potential Opportunities:

There are important benefits to be derived from involving more African financing institutions in the financing of energy infrastructure projects, which could be supported by the introduction of local currency guarantees.

- **To increase investment options:** at present the investment of local financial institutions in Africa are concentrated in relatively few assets, predominately government securities. Increasing the range of investments available to African institutions can help them to benefit from increased diversification of their portfolios and potentially achieve a higher long-term return on their investments.

- **To promote alternative sources of finance for energy projects:** increasing the supply of local finance will increase the range of options for projects, enabling them to improve their efficiency and potentially reduce costs to consumers.

- **To facilitate greater involvement of local developers:** local developers typically find it more difficult to access finance from international sources relative to international developers. Increasing the availability of finance from local institutions could help to stimulate more investment from local developers, who also make use of local financial advisors and legal services, thereby reducing energy projects costs.

- **To help credit and capital markets mature:** There are also significant spill-over benefits to African economies of having wider, deeper, and therefore more efficient, longer term credit and especially capital markets.
01 Background and Key Trends in Africa's Energy Sector

02 Rationale for Local Currency (LCY) Financing

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AfDB LOCAL CURRENCY INITIATIVE – WHY AND HOW?

Objectives
- Assist AfDB’s clients in mitigating foreign exchange risk from projects financed by the Bank.
- Facilitate the development of domestic capital markets.

Some Guiding Principles
(Except ZAR for which ADB runs a treasury portfolio)

- African Currency fundraising activity is demand driven
- Fundraising is on a back-to-back structure, the borrowing mirrors the underlying structure of the loan
- Pricing is based on cost pass through methodology, client benefits from AfDB competitive pricing

Multi-pronged Approach to Local Currency Fundraising
- Local bond issuances
- Borrowings from local financial institutions (New)
- Cross currency swaps (deliverable)
- Synthetic Local Currency Loan (Hard currency loans + non-deliverable hedge)

*the AfDB is currently exploring the development of a LCY Financing Readiness Index employing 8 select indicators*
LOCAL CURRENCY LOANS

Rational
✓ Provide long term funding in local currencies
✓ Promote domestic capital market development
✓ Reduce clients foreign exchange risk /overall economic risk exposure

Funding option 1: Domestic Bond Issuance
The Bank will issue a local bond to provide the funding for the client.
The Bank is hedged as it has its assets and liabilities aligned in the same currency.

Funding option 2: Synthetic Local Currency Loan (SLCL)
The Bank enters into a hedge contract with a market counterparty that provides the equivalent local currency conversion rate. The Bank’s liability is then completely hedged against currency and interest rate variations and the client’s exposure in local currency.

Funding option 3: Cross Currency Swap
This involves an exchange of notional amount with the swap counterparty at inception and termination, and subsequent receipts of debt repayments in its preferred currency based on the swap transaction executed.

Funding option 4: Local Bank Loan
The Bank enters into an agreement with a local commercial bank that would provide the client with the funding, and receives its funding cost from the Bank. The Bank bears the credit risk of the client.

Lending currencies

The Bank currently has 11 approved African lending currencies:
Confirmation that the bonds will be accorded an asset-risk weighting of 0%.

AfDB bonds are 0% risk weighted under Basel II.

Eligibility of the bonds for bank liquidity ratio requirements. AfDB bonds are level 1 assets under Basel III.

Tax exemption on income and gains to bondholders.

Authorization to issue in the domestic market.

Authorization to freely exchange bond proceeds in any other currency.

Withholding tax exemption.

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Landmark NGN 12.95 billion 7-year domestic bond in Nigeria. First-ever debt program from a supranational issuer.

Issuance in Uganda amounting to UGX 25 billion since 2012.

AfDB and Bloomberg launched the AFMI Bloomberg African Bond Index (ABABI) — 2015.

- Transparent and credible benchmark indices to provide investors with a tool with which to measure and track the performance of Africa’s bond markets.
- Composite index comprised of the Bloomberg South Africa, Egypt, Nigeria and Kenya local currency sovereign indices.
## Selected Metrics to Assess Countries’ Readiness for Infrastructure Financing in Local Currency

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<td>40.70%</td>
<td>80.00%</td>
<td>42.60%</td>
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Source: Making Finance Work for Africa – African Development Bank  
*as of 2016  
**as of 2016  
Top 5 countries
Case Study 1: Leveraging Energy Access Finance Framework (LEAF PROGRAMME)

Unlocking commercial and local currency debt capital to scale up decentralized and distributed renewable energy (DRE) in Africa
Leveraging Energy Access Finance Framework (LEAF PROGRAMME)

Program size

Indicative cost (equity and debt): EUR 815 million
  - GCF: USD 170.9 million
  - AfDB: USD 164 million
  - Other co-financiers: USD 315 million
  - Equity contribution: USD 310 million

Product offering

**De-risk and scale investments:**
  - (Concessional) Guarantees
  - (Concessional) Subordinated debt
  - Senior debt

**Technical Assistance:**
  - Support FIs engage & invest in DRE
  - Transaction structuring/ advisory
  - Support governments’ policy development

Technology

- SHS
- Mini-grids
- Solar C&I solutions

Country focus

Ghana, Guinea, Ethiopia, Kenya, Nigeria, and Tunisia (additional countries may be added)

Partial Credit Guarantees (PCG) was provided under different structures including the tranching (first loss) and pro rata structures.
## LEAF indicative terms

<table>
<thead>
<tr>
<th>Ticket size</th>
<th>LEAF targets mid to large tickets where possible (&gt;USD 20m)</th>
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</table>
| Financing instruments | • Partial Credit Guarantee - i.e. first loss and pari passu partial credit guarantees, tenor extension guarantees  
• Subordinated debt  
• Senior debt |
| Currency | • GCF: USD  
• AfDB: Nigerian Naira or hard currency |
| Borrowers | • DRE/ Developer Companies with larger financing needs to expand their businesses  
• Aggregator structures (e.g. commercial banks, Holdcos) financing a portfolio of DRE companies |
| Pricing | AfDB instruments are provided at market rate and blended with GCF concessional funds |
| Tenor | Generally 5-7 years, a maximum tenor of 12 years can be considered depending on the transaction (e.g. green mini-grid projects may require longer tenors) |
| Security | Secured e.g. through assets, receivables etc. |
Case Study 2: Nigeria Infrastructure Debt Fund (NIDF)

Channeling capital from domestic institutional investors and building knowledge of infrastructure as an attractive asset class.
Nigeria Infrastructure Debt Fund (NIDF): Africa’s first listed Infrastructure Debt Fund

> The Nigeria Infrastructure Debt Fund (NIDF) extends long-term, local currency capital, with the ultimate goal of unlocking domestic savings and channeling them into productive infrastructure projects, thus eliminating foreign exchange risks and improving investment returns.

> Its investor base includes the AfDB (NGN 3.6 billion investment), the Nigerian Sovereign Investment Authority, all major pension funds, insurance companies, wealth managers and family offices in Nigeria.

> Key Facts:
  - Issuance program of 2 billion units for an amount of NGN 200 billion;
  - Successfully raised and deployed approximately NGN 80 billion since June 2017 across 25+ loans;
  - Fund raising closely aligned with a mature deal pipeline; typically seeking to raise additional capital 2-3 times annually.

NIDF’s Investment Strategy

Sources: Chapel Hill Denham; Nigeria Infrastructure Debt Fund Marketing Material; AfDB analysis
Case Study 3: Distributed Energy Service Companies (DESCOs) Financing Programme

Facilitating viable alternatives to grid-based electricity access by working with local FIs to de-risk and execute receivables-backed transactions through guarantees and local currency financing
AfDB and EU Support for DESCOs

With the objective of increasing the pool of available finance in the off-grid solar sector in Sub-Saharan Africa, the African Development Bank, with support from the European Union, launched the DESCOs Financing Programme in July 2018.

Under the auspices of the DESCOs Financing Programme, the AfDB will work with local financial intermediaries (such as commercial banks and debt funds, amongst others) and DESCOs deploying solar home systems to structure, de-risk, and execute receivables-backed transactions that provide DESCOs with the local currency capital they require to sustainably scale-up their operations.

The AfDB and the EU believe that a transaction structure that both (i) isolates lenders from operator risk and (ii) generates predictable cash flows that can be collateralised, coupled with a de-risking mechanism such as a PCG can unlock local currency solutions for DESCOs operating in Sub-Saharan Africa.
Thank you

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