Vodacom Report:
Decarbonising Africa's ICT sector

Chapter 4
Finance

April 2026

Further together

Chapter 4

Finance

RECAP:

Chapter 1, titled "Challenges to decarbonisation", outlined the significant obstacles faced by the ICT and other electricity-intensive sectors in Africa, including unreliable electricity supply, financial constraints, carbon-intensive grids, and complex regulatory frameworks, which hindered their efforts to decarbonise. **Chapter 2, titled "Possible solutions to the challenges"** explored solutions to decarbonisation challenges in Africa, focusing on improving grid infrastructure, developing off-grid renewable energy, and overcoming institutional, policy, and regulatory barriers through power sector reforms and public-private partnerships. **Chapter 3, titled "Solutions available to MNOs"** discussed the challenges and opportunities for improving energy efficiency in base stations and data centres, and explored cleaner alternatives to diesel generators for mobile network operators (MNOs) in Africa.

Finance is key to enabling a rapid transition towards net zero. MNOs are highly dependent on electricity decarbonisation to meet their net zero goals, and their financing needs mostly relate to the technologies discussed in chapter 3. In Chapter 4 financing needs are unpacked and have been grouped into:

- Utility-scale renewable electricity generation, enabled by transmission and distribution infrastructure
- Mini-grids
- On-site renewable energy generation and energy efficiency measures

These financing needs face different barriers and opportunities, which are discussed on the following page.

Contents

4.1 Utility-scale renewable electricity generation and transmission and distribution infrastructure

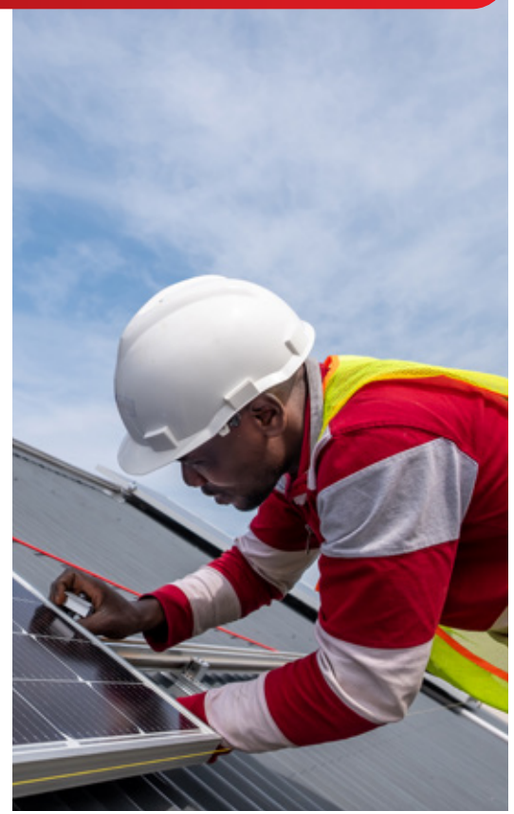
Table 1 Primary utility-scale renewable energy generation and transmission and distribution related decarbonisation challenges and solutions in this report

	Summary of challenges	Summary of solutions
Primary challenges		
High upfront costs and limited returns	Utility-scale projects and transmission and distribution infrastructure require significant upfront investment, with longer payback periods and lower immediate returns, making them less attractive to private investors.	Leveraging independent power producers (IPPs) and power purchase agreements (PPAs) will provide stable revenue streams and reduce financial risks. Using Development Finance Institutions (DFIs) and blended finance models will reduce the cost of capital.
Government financial constraints	Many African governments face severe financial constraints and high debt levels, limiting their ability to invest in large-scale infrastructure projects.	DFIs provide concessional loans, grants and technical assistance to help de-risk projects and attract private investment. Public-private partnerships (PPPs) can mobilise private sector capital for infrastructure projects.
Regulatory and political risks	Regulatory uncertainties, political instability and governance issues deter investment as they affect the stability and predictability needed for long-term projects.	Establishing clear, transparent and stable regulatory frameworks will enhance investor confidence. Independent regulatory bodies should be created to oversee the sector and reduce political interference.
Operational inefficiencies and losses	State-owned utilities often suffer from inefficiencies, high transmission and distribution losses, and poor financial health, reducing revenue collection and exacerbating financial challenges.	Investing in modern technologies and improving operational efficiencies will reduce losses and enhance revenue collection. Strengthening governance and accountability mechanisms will improve financial health.
Underdeveloped financial markets	Many African countries have underdeveloped financial markets, limiting access to long-term financing options necessary for large infrastructure projects.	To attract funding, innovative financing mechanisms, such as green bonds and climate finance, can be adopted. DFIs and blended finance models can support developing robust project pipelines.
Currency fluctuations	Investments in Africa often involve foreign currency due to concerns around currency volatility, which can affect the value of assets and revenue.	DFIs and concessional finance can mitigate currency risk by providing financing in local currencies or through hedging mechanisms. Strengthening domestic capital markets will reduce reliance on foreign currency.

High upfront costs, political risk, regulatory uncertainty and the poor state of African utilities are some of the challenges to financing utility-scale generation and transmission and distribution infrastructure.

Globally, significant progress has been made to decarbonise electricity generation. In 2023, a record US$1.8 trillion was invested in renewable energy production, mostly in the form of utility-scale projects (from ~20MW to hundreds of megawatts). This is US$600 billion more than investments in fossil fuel-based electricity generation[1]. However, investment into renewable energy needs to reach US$4.5 trillion annually to meet climate goals. The funding shortfall is particularly acute in Africa[2].

Utility-scale generation assets in Africa may be owned by public energy utilities or IPPs. Most state-owned utilities face severe financial constraints and typically require government guarantees or highly concessional finance from organisations like the World Bank to enhance renewable energy generation. Even if public utilities could fund their own renewable energy generation projects, the scale of investment needed to establish a reliable, widely accessible, low-carbon energy source in Africa is so extensive that it would exceed the capacity of public funding. Power sector reform that allows for increased private sector participation is considered as key to increasing renewable energy generation capacity in Africa. The primary mechanism for MNOs and other large corporates to purchase utility-scale renewable energy is through PPAs with IPPs.



The primary barriers to investing in African renewable energy generation projects result from upfront capital expenditure, high post-Covid-19 interest rates, political risk, regulatory uncertainty, currency fluctuations, underdeveloped financial markets, and a lack of forex availability to repay dollar-based loans[3,4]. These factors increase the cost of capital and financing risk, resulting in investors and lenders demanding higher returns to mitigate their risks. Increased costs of capital impact project costs, which need to be recovered through end-user tariffs or government subsidies. For most African countries, businesses and households cannot absorb increased electricity costs, and governments cannot provide subsidies. These factors discourage the development of utility-scale renewable energy projects in Africa.

The state mostly controls transmission and distribution assets to protect national security, public interest, regulatory needs, and others. Many countries, including in Africa, view their electricity grids as critical infrastructure components that serve socioeconomic goals rather than profit-making entities. Therefore, financing transmission and distribution infrastructure poses a more significant challenge than financing generation projects, due to the limited potential for generating near-term profits and the financial and regulatory constraints of many African governments.

Transmission and distribution infrastructure requires substantial upfront capital expenditure investments. Unlike electricity generation projects, which generate revenue relatively quickly, the longer payback periods of transmission and distribution projects make them less attractive to private investors. Severe financial constraints and high debt levels impact many African countries, limiting their ability to invest in large-scale infrastructure projects. Regulatory uncertainties, political instability and governance issues also deter investment, as changes in government policies or leadership can affect the stability and predictability needed for long-term projects.

Many of Africa's state-owned utilities suffer from operational inefficiencies, high transmission and distribution losses, and poor financial health. These factors reduce revenue collection, amplifying the financial challenges of maintaining and expanding infrastructure. Financial markets in many African countries are underdeveloped, which limits access to long-term financing options necessary for large infrastructure projects. The lack of local capital markets makes it difficult to raise funds locally, leading to increased reliance on often burdensome and expensive international financing.

IPPs and DFIs can help overcome these challenges and finance utility-scale generation and transmission infrastructure, and MNOs can serve as creditworthy off-takers.

1 BloombergNEF. (2024, January 30). Global Clean Energy Investment Jumps 17%, Hits $1.8 Trillion in 2023, According to BloombergNEF Report.
2 IEA. (2023). Net Zero Roadmap; a Global Pathway to Keep the 1.5C Goal in Reach.
3 IRENA. (2022). Renewable Energy Market Analysis: Africa and Its Regions.
4 IEA. (2023). Scaling up Private Finance for Clean Energy in Emerging and Developing Economies.

Despite the magnitude of these challenges, there are various options to tackle the financing challenges linked to utility-scale renewable energy generation and the associated transmission and distribution infrastructure in Africa. Key opportunities include leveraging IPPs, PPAs, DFIs, and PPPs.

IPPs are private entities that own and operate facilities to generate and sell electricity to state- or privately-owned utilities or directly to end users. In most countries, IPPs play an important role in developing renewable energy generation capacity. Successful IPPs are underpinned by PPAs. These long-term contracts ensure a stable revenue stream for the IPP and significantly reduce the financial risk for project investors and lenders by guaranteeing a buyer for the electricity. In recent years, South Africa's IPP market has grown to be one of the largest and most successful in Africa, driven by the country's Renewable Energy Independent Power Producer Procurement Programme (REIPPPP), which has attracted significant domestic and international investment, and led to the development of numerous large-scale renewable energy projects.

Concessional loans, grants and technical assistance from DFIs can lower risk and attract additional private investment into renewable energy projects. DFIs are usually backed by governments, and their risk tolerance is higher than private investors. Thus, DFIs can finance projects that fall outside commercial banks' risk tolerance. Lower interest rates and risk mitigation tools, such as guarantees and first-loss tranches, can allow DFIs to significantly reduce their overall cost of capital for renewable energy projects. Blended finance models that combine concessional finance from public sources with private investment, could be effective. As an example, Kenya's Lake Turkana Wind Power Project is the largest wind farm in Africa. The project successfully utilised a blended finance approach. DFIs, including the African Development Bank (AfDB), provided critical concessional loans and guarantees that helped de-risk the project, which attracted significant private investment. This combination of public and private financing reduced overall capital costs and facilitated the project's implementation, demonstrating the potential of blended finance to drive large-scale renewable energy projects in Africa[5]. Table 2 provides an overview of the financing instruments that can be leveraged for de-risking loans.

PPPs can play an important role in overcoming many challenges associated with funding and developing transmission and distribution infrastructure. By structuring deals that share risks and returns between public and private sector stakeholders, governments can retain control of critical infrastructure while attracting private sector investments. The expertise and efficiency bought by the private sector can reduce the overall cost and lead time of projects. PPPs are particularly useful for large-scale infrastructure projects that require significant upfront investment with long payback periods.

Green bonds, sustainability-linked loans and other innovative financing mechanisms can provide additional funding for sustainable/low-carbon electricity infrastructure projects. The strict proceeds allocation and impact generation reporting requirements of green bonds can increase investor confidence in the project's investment credentials. International appetite for providing climate finance is growing, thereby increasing the availability of capital to support large-scale renewable energy and electricity infrastructure projects.

Stable and transparent regulatory frameworks are key to creating investor confidence. To ensure fair tariffs, reduce political interference and improve the overall investment landscape, independent regulatory bodies should play a central role in overseeing the energy sector. Efficient regulatory environments can help streamline licensing processes and lower project costs, making potential infrastructure investments for domestic and international investors more attractive.

Developing the capacity of regulators, utilities and other local institutions through training and technical assistance can improve project planning, implementation and management, which all reduce project risks and strengthen the investment case. Organisations such as the AfDB and the International Renewable Energy Agency (IRENA) provide critical support in this area, helping to develop robust project pipelines and improve the investment landscape.

MNOs are well placed to support the development of private sector renewable energy generation in Africa. As creditworthy off-takers utilising PPAs with IPPs, MNOs can play an important role in providing a stable revenue stream that enhances the bankability of renewable energy projects. Aside from reducing financial risks for investors and lenders, MNOs can drive demand for renewable energy, encouraging further private sector investment. MNOs' participation in renewable energy projects may improve the sustainability profile of renewable energy projects by contributing to developers' corporate social responsibility goals (e.g., new generation capacity leads to improved mobile network coverage), making them more attractive to environmentally conscious consumers and investors.

Realising these opportunities and identifying further opportunities will require close collaboration between key stakeholders, as identified in Table 4.

5 AfDB. (2015, September 17). Lake Turkana Wind Power Project: The largest wind farm project in Africa.

Table 2 **Several financing instruments can be used to attract private capital into private sector African utility-scale renewable energy projects, with DFIs playing a pivotal, catalytic role in these arrangements**

Financing instrument	Description	Key risk mitigation and capital attraction attributes
Concessional loans	Loans offered at below-market interest rates to reduce financing costs	Lowers the overall cost of capital, making projects more financially viable
Grants	Non-repayable funds to support project development and implementation	Reduces the amount of debt required, easing the financial burden
Technical assistance	Support services to enhance project design, implementation, and management	Improves project readiness and increases chances of successful implementation
Equity investments	Direct investments in project equity to provide initial capital	Signals project viability and attracts additional private investment
Green bonds	Bonds earmarked to finance environmentally friendly projects	Attracts investors interested in sustainable investments, providing additional funding sources
Blended facilities	Structured finance that combines public and private funds to share risk	Aligns interests of public and private investors, leveraging the strengths of both
First-loss tranches and guarantees	Subordinated financing and guarantees to cover initial losses and credit risks	Reduces perceived risk, protects investors and enhances project creditworthiness
Partial credit guarantees	Guarantees that cover a portion of the credit risk associated with a project	Reduces perceived risk and enhances the project's creditworthiness
Political risk insurance	Insurance that protects investors against political events that could impact projects	Mitigates the risk of political instability, encouraging foreign investment
Currency exchange guarantees	Guarantees that protect against currency fluctuation risks	Reduces foreign exchange risk, making projects more attractive to investors
Completion guarantees	Guarantees that ensure project completion, covering cost overruns or delays	Increases investor confidence by ensuring project delivery
Interest rate caps or swaps	Financial instruments that limit or swap interest rate exposure	Protects against interest rate volatility, to stabilise financing costs
Portfolio guarantees	Guarantees applied to a portfolio of projects rather than individual projects	Diversifies risk across multiple projects, making investment more attractive
Liquidity facilities	Facilities that provide additional liquidity to projects during financial stress	Ensures continuous project operation, reducing the risk of financial distress

Case study 1

World Bank's US$700 million support for Egypt

In a strategic effort to strengthen Egypt's renewable energy sector and enhance economic stability, the World Bank announced in June 2024 the allocation of a US$700 million budget support package[6].

This package forms part of a broader three-year US$6 billion initiative aimed at boosting private sector engagement, fortifying macroeconomic resilience and fostering sustainable growth. The programme, titled the "Generating Resilience, Opportunities, and Welfare for a Thriving Egypt" Development Policy Financing, addresses immediate economic challenges and supports long-term structural reforms.

The Development Policy Financing focuses on significant investments in renewable energy and efficiency improvements across key sectors, including electricity, water and sanitation, aligning with Egypt's sustainable development and climate resilience goals. This funding will aid Egypt's transition towards a more competitive, greener economy driven by the private sector, promoting job creation and economic diversification. Key objectives of the programme include enhancing the governance of state-owned enterprises, empowering the competition authority, improving tax collection systems, and implementing climate adaptation measures, such as establishing a framework for carbon credit trading.

This initiative illustrates the pivotal role of DFIs, like the World Bank, in lowering the cost of capital and mitigating risks associated with large-scale renewable energy projects. By offering concessional financing and technical support, DFIs enable the mobilisation of private investment, leveraging public funds to initiate private sector participation and innovation in renewable energy. This blended finance model overcomes financial barriers and ensures the sustainable development of utility-scale renewable energy projects and the required transmission and distribution infrastructure in Africa.

6 World Bank. (2024, June 24). New World Bank US$700 million Support to Help Egypt Achieve More Sustainable, Diversified and Resilient Growth.

4.2 Mini-grids

Table 3 Primary mini-grid-related decarbonisation challenges and solutions identified in this report

	Summary of challenges	Summary of solutions
Primary challenges		
High upfront capital investment	Mini-grid projects require substantial initial costs for generation and distribution assets, project development, and securing land rights and permits.	Telco base stations as anchor customers can provide a steady revenue stream, enabling mini-grid developers to secure favourable financing terms with longer commitment and lower interest rates.
Perceived risk by investors	Investors view mini-grids as risky due to uncertain revenue streams and the lack of creditworthy off-takers.	Telco base stations offer a reliable and continuous power supply, mitigating revenue uncertainty and making the investment more attractive to financiers.
Small project size	The size of mini-grids does not justify the due diligence and appraisal effort required by financiers.	The presence of telco base stations can improve the overall load factor and average revenue per user, enhancing the financial metrics considered by investors.
Dependency on inconsistent subsidies	Mini-grid projects heavily rely on subsidies to make tariffs affordable for end-users, but subsidies are inconsistent with availability and timely disbursement.	With reliable off-takers like telco base stations, mini-grid developers can reduce their dependency on subsidies by securing stable revenue streams.
Political and regulatory risks	Lack of robust regulatory frameworks can lead to uncertainties around tariffs, grid encroachment (where natural or manufactured elements are too close to electricity infrastructure, creating a safety risk), and the mini-grid's long-term sustainability.	Anchor customers such as telco base stations can attract other productive loads, fostering a supportive business ecosystem and enhancing regulatory and political stability.
Limited tailored financial products	No financial products cater to the needs of mini-grid projects, such as concessional loans and de-risking mechanisms.	Including telco base stations in mini-grids can secure more favourable financing terms, including concessional loans and de-risking mechanisms typically offered by DFIs.

Financing challenges for mini-grids

Financing mini-grids in Africa can be highly challenging, preventing the development and scaling of these crucial energy solutions. The high upfront capital investment requirements associated with generation and distribution assets, project development and securing land rights and permits present a significant barrier . Mini-grid projects are often perceived as risky by investors due to their new, often unreliable revenue streams, and the lack of credit history of the project developers. The size of mini-grids can compound these risks as the ticket size does not justify the due diligence and appraisal effort required by financiers.

Mini-grid projects often rely heavily on subsidies to make tariffs affordable for end-users. The availability and disbursement of these subsidies are often inconsistent, adding another layer of uncertainty to the financial viability of mini-grids[6]. Political and regulatory risks may also play a significant role –weak regulatory frameworks can lead to uncertainties around tariffs and subsidies, encroachment of the national grid, and the long-term viability of the mini-grid. The limited availability of financial products tailored to the needs of mini-grid projects, such as concessional loans and de-risking mechanisms, can limit developers' ability to raise funding.

Opportunities for telco base stations as anchor customers

By acting as an anchor customer, MNOs can utilise their base station networks to enhance the financial viability of mini-grids. Telco base stations require a reliable and continuous power supply, which can provide mini-grid operators with a steady and predictable revenue stream. The reliability of MNOs as off-takers and creditworthy customers can significantly mitigate revenue uncertainty, making the mini-grid investment more attractive to financiers[6].

MNOs serving as anchor customers help address the issue of the high upfront capital investment for mini-grid developers. With a reliable off-taker, mini-grid developers can access a wider range of loan instruments and secure better financing terms (e.g., lower interest rates and longer payback terms). Including telco base stations in the mini-grid improves the overall load factor, which is crucial for improving the mini-grid's economic performance. Higher and more consistent electricity demand from the base stations enhances the average revenue per user – a key financial metric for investors.

Through their base stations, MNOs can attract other productive loads onto the mini-grid, developing a business ecosystem that supports local economic development. This enhances the mini-grid's viability and drives socioeconomic development in rural areas. By providing reliable power to telco base stations, surrounding communities and businesses, mini-grids can promote economic activities, improve livelihoods, and support broader development goals.

Footnote 6 referenced above can be found on page 5.

4.3 Energy efficiency and on-site generation

Financing challenges for energy efficiency and on-site renewable energy

The financing of energy efficiency and on-site renewable energy generation for telecommunication base stations in Africa faces several key challenges. The high upfront capital costs associated with installing renewable energy systems (e.g. solar PV panels and batteries) and energy efficiency retrofits can be prohibitive, especially in areas that lack affordable financing options. The financial viability of energy efficiency investments is often challenged by long payback periods and the perceived risks associated with new technologies and their integration with existing systems.

The lack of familiarity and technical expertise among financial institutions regarding energy efficiency and renewable energy projects can provide another challenge[7]. Unfamiliarity impacts risk perceptions, making it difficult for MNOs to secure funding at favourable terms. The limited availability of local financing options, particularly in local currency, compounds the challenge. Many financing options are only available in foreign currencies, which introduces foreign exchange currency risk.

Improving energy efficiency and integrating on-site renewable energy in data centres face similar challenges, with additional complexities. Data centre energy efficiency retrofits, such as advanced cooling systems or aisle containment, require significant capital investment. The logistical challenges of importing equipment from suppliers outside Africa can further elevate project costs.

The acute shortage of trained personnel to manage and implement energy efficiency projects is another significant challenge in many African countries. The complexity of energy performance contracts and the lack of standardised contracts increases transaction costs and deters investors and lenders from financing these projects. Because the market is new, risks are considered high and there is no track record for successful energy efficiency projects, which further complicates the financing landscape for data centres.

7 IFC. (2023). Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies.

Opportunities for financing energy efficiency and on-site renewable energy

Despite these challenges, several opportunities exist to enhance the financing landscape for energy efficiency and on-site renewable energy for base stations and data centres. Energy Service Companies (ESCOs) provide one of the most promising opportunities. By providing turnkey solutions, including financing, implementation and performance guarantees, ESCOs can significantly reduce the risk and upfront capital requirements of energy efficiency retrofits and on-site renewable energy projects for MNOs. Although limited, some African ESCOs specialise in data centres and can navigate the data centre-specific retrofitting challenges, mitigating the perceived risks and encouraging investment.

Revolving credit lines and funds can play a role in overcoming barriers. These instruments provide continuous funding, which allows MNOs to invest in energy efficiency and renewable energy projects as part of their ongoing operational expenses, rather than as an upfront capital expenditure. Tax incentives for energy efficiency, such as those offered by the South African National Energy Development Institute (the 12L tax incentive), can enhance the financial viability of these projects by reducing their overall cost.

Debt and equity funds focused on energy efficiency and renewable energy projects can provide capital for these investments. These funds offer flexible financing options, including debt guarantees and concessional loans, which make it easier for data centres to secure funding. Replicating successful policy initiatives, such as South Africa's 12L tax incentive, in other African countries can also create an environment more conducive to investing in energy efficiency and renewable energy.

Energy performance contracts provide another significant opportunity. They are agreements where an ESCO designs and implements energy efficiency projects, and the client repays the investment through energy savings achieved over time. The ESCO generally guarantees savings, which reduces the client's financial risk. This model works in the interests of both parties, as the ESCO is incentivised to maximise energy savings to ensure repayment. Energy performance contracts can be especially impactful in the context of data centres, where energy savings can be high, but the capital required for energy efficiency retrofits can be a barrier.

While there can be significant financing challenges for energy efficiency and on-site renewable energy generation in telecommunication base stations and data centres in Africa, there are also substantial opportunities for overcoming these barriers. ESCOs, revolving credit lines, tax incentives and dedicated financial instruments provide MNOs with an opportunity to enhance their energy projects' financial viability. As described inTable 4, close collaboration between key stakeholders is necessary to realise these opportunities.

4.4 Collaboration opportunities

To overcome financial challenges, Table 4 outlines opportunities for various stakeholders to collaborate and implement practical solutions to the challenges.

Table 4 Finance-related collaboration opportunities for realising decarbonisation opportunities

Collaboration opportunity for MNOs	Opportunity description	Decarbonisation interventions covered	Potential carbon mitigation impact	Complexity of realising opportunity
PPAs with IPPs	Entering into PPAs with IPPs secures long-term, stable renewable energy supply, enhancing the financial viability of renewable projects.	Utility-scale generation		High
Partnering with DFIs	Collaborating with DFIs can secure concessional loans, grants, and technical assistance for renewable energy and infrastructure projects, reducing financial risks.	Utility-scale generation, transmission infrastructure, mini-grids, energy efficiency and on-site renewables		High
PPPs	Engaging in PPPs helps mobilise private sector capital and expertise for developing and maintaining renewable energy and infrastructure projects.	Transmission and distribution infrastructure		High
Issuing green bonds	Collaborating with financial institutions to issue green bonds can attract investment for sustainable projects and demonstrate corporate commitment to sustainability.	Utility-scale generation, transmission infrastructure, energy efficiency and on-site renewables		Medium
Acting as anchor customers for mini-grids	Supporting mini-grid projects by acting as reliable anchor customers provides steady revenue streams and enhances project bankability.	Mini-grids		Medium
Partnering with ESCOs	Collaborating with ESCOs to implement energy efficiency and on-site renewable energy projects leverages their expertise and financing solutions.	Energy efficiency and on-site renewables		Medium
Utilising revolving credit lines	Working with financial institutions to establish revolving credit lines allows for continuous funding of energy efficiency and renewable projects, through integrating these into operational expenses.	Energy efficiency and on-site renewables		Low

Potential carbon mitigation impact

High Medium Low

Table 4 **Finance-related collaboration opportunities for realising decarbonisation opportunities** continued

Collaboration opportunity for MNOs	Opportunity description	Decarbonisation interventions covered	Potential carbon mitigation impact	Complexity of realising opportunity
Participating in blended finance initiatives	Engaging in blended finance models that combine public and private funds can share risks and attract additional private investment for large-scale renewable energy projects.	Utility-scale generation, transmission infrastructure, mini-grids and energy efficiency		High
Advocating for improved regulatory frameworks	Collaborating with governments and regulatory bodies to establish clear, stable and supportive regulatory frameworks enhances investor confidence and streamlines project approvals.	Utility-scale generation, transmission infrastructure, mini-grids and energy efficiency		High
Building local capacity and technical expertise	Partnering with organisations like the AfDB and IRENA strengthens local institutions through training and technical assistance.	Utility-scale generation, transmission infrastructure, mini-grids and energy efficiency		Medium

Potential carbon mitigation impact

High Medium Low

In conclusion, the decarbonisation of Africa's electricity sector is a multifaceted challenge that requires a comprehensive approach. This chapter has highlighted the critical role of finance in enabling the transition to net zero, particularly for MNOs who are heavily reliant on electricity decarbonisation to meet their sustainability goals. By addressing the financing needs for utility-scale renewable electricity generation, mini-grids, and on-site renewable energy generation and energy efficiency measures, we can unlock significant opportunities for reducing greenhouse gas emissions and enhancing energy security.

The key to overcoming the financial barriers lies in leveraging innovative financing mechanisms, such as PPAs, DFIs, and PPPs. These mechanisms can help mitigate risks, attract private investment, and ensure the financial viability of renewable energy projects. Additionally, the involvement of MNOs as creditworthy off-takers can play a pivotal role in enhancing the bankability of these projects.

The recent **Addis Ababa Declaration** at the second Africa Climate Summit underscores the urgent need for increased climate finance to support Africa's transition to a low-carbon economy. This declaration aligns with the financing strategies discussed in this chapter, particularly the emphasis on leveraging innovative financing mechanisms such as PPAs, DFIs, and PPPs. The commitment to mobilise significant financial resources, as outlined in the Declaration, can help address the financial barriers identified in this chapter, such as high upfront costs, regulatory uncertainties, and underdeveloped financial markets. By enhancing the capacity of African financial institutions and markets, the Declaration's ambitions can facilitate the development of robust project pipelines and attract private investment. Furthermore, the Declaration's focus on creating an enabling environment for climate finance aligns with the recommendations for stronger regulatory frameworks and increased collaboration among key stakeholders.

As we move forward, it is essential to foster collaboration among key stakeholders, including governments, financial institutions, and the private sector. By working together, we can create a supportive regulatory environment, develop robust project pipelines, and build local capacity to implement and manage renewable energy projects effectively. This collaborative effort will be crucial in achieving the ambitious goal of decarbonising Africa's electricity sector and ensuring a sustainable and resilient energy future for the continent.