

POLICY BRIEF

Southern Africa Compact Commitments



ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AC	Alternating Current
AESTAP	Africa Energy Sector Technical Assistance Program
AfDB	African Development Bank
AFD / FDA	Agence Française de Développement
ANNA	Angola-Namibia interconnector
ASCENT	Accelerating Sustainable and Clean Energy Access Transformation
ATAF	Automatic Tariff Adjustment Formula (Malawi)
ATC&C	Aggregate Technical, Commercial and Collection (losses)
BESS	Battery Energy Storage System
BOOT	Build-Own-Operate-Transfer
BPC	Botswana Power Corporation
COD	Commercial Operation Date
DAM	Day-Ahead Market (SAPP)
DBSA	Development Bank of Southern Africa
EAPP	Eastern Africa Power Pool
EDF	Électricité de France
EDM	Electricidade de Moçambique
EGENCO	Electricity Generation Company (Malawi)
EIB	European Investment Bank
ENE	Empresa Nacional de Electricidade (Angola)
ESCOM	Electricity Supply Corporation of Malawi
EU	European Union
FUNAE	Fundo de Energia (Mozambique's Energy Fund)
FY	Financial Year
GDP	Gross Domestic Product
GWh	Gigawatt-hour
GPSA	Government Project Support Agreement (Zimbabwe)
HCB	Hidroeléctrica de Cahora Bassa
HVAC	High-Voltage Alternating Current
IBRD	International Bank for Reconstruction and Development
ICBC	Industrial and Commercial Bank of China
IDA	International Development Association
IMF	International Monetary Fund
IPP	Independent Power Producer

Acronym	Definition
IRP	Integrated Resource Plan
KfW	Kreditanstalt für Wiederaufbau (German development bank)
kV	Kilovolt
LCGEP	Least Cost Geospatial Electrification Plan (Zimbabwe)
LEC	Lesotho Electricity Company Liberia Electricity Corporation
LEWA	Lesotho Electricity and Water Authority
LPG	Liquefied Petroleum Gas
MW	Megawatt
MYTF	Multi-Year Tariff Framework (Zambia)
NEAT	National Energy Advancement and Transformation Program (Zambia, World Bank)
NIRP	National Integrated Resource Plan (Namibia)
OGSF	Off-Grid Solar Fund (Botswana)
PAYGO	Pay-As-You-Go
PEDU	Private Energy Development Unit (Botswana)
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PV	Photovoltaic
RBF	Results-Based Financing
RE	Renewable Energy
RTIFF	Regional Transmission Infrastructure Financing Facility (SAPP)
SAPP	Southern African Power Pool
SEFA	Sustainable Energy Fund for Africa
SHS	Solar Home System
SME	Small and Medium Enterprise
TANESCO	Tanzania Electric Supply Company
TSO	Transmission System Operator
USc	US cents
ZESA	Zimbabwe Electricity Supply Authority
ZESCO	Zambia Electricity Supply Corporation
ZETDC	Zimbabwe Electricity Transmission and Distribution Company
ZIZABONA	Zimbabwe-Zambia-Botswana-Namibia interconnector
ZPC	Zimbabwe Power Company
ZTIP	Zambia-Tanzania Interconnector Project
WB	World Bank

INTRODUCTION

In January 2025, the Mission 300 Africa Energy Summit in Dar es Salaam brought African governments and development partners around a shared objective: accelerating universal access to reliable, affordable, and sustained energy. Co-hosted by the African Development Bank (AfDB) and the World Bank (WB), the initiative has since translated into National Energy compacts that set country-level commitments on electricity access, system modernization, renewable energy, private investment, and utility reform.

Figure 1: Energy Summit



For this brief, the Southern Africa compacts are assessed through five operational dimensions: 1) Expanding cost-efficient power generation; 2) Boosting regional power integration for cross-border trade; 3) Scaling up last-mile electrification with distributed renewable energy solutions; 4) Unlocking private investment through supportive regulatory frameworks; and 5) Strengthening utilities with transparent financial management and cost recovery.

Southern Africa gives the Mission 300 framework one of its most demanding tests. The seven countries covered in this brief, **Botswana, Lesotho, Malawi, Mozambique, Namibia, Zambia, and Zimbabwe**, all sit within or are strategically connected to the Southern African Power Pool (SAPP), the continent's oldest and, in some respects, most developed regional electricity market. Yet that institutional maturity has not translated into reliable supply. The 2023-2025 El Niño drought dealt a severe shock to the sub-region's hydropower-dominated systems: Lake Kariba's usable live storage fell to just 8% by late August 2024, cutting generation on the Zambian side to roughly 98 MW and on the Zimbabwean side to around 214 MW. Zambia moved from eight to twenty-one hours of daily load-shedding within seven months. Zimbabwe's grid operated under comparable pressure. What had been a structural vulnerability became a political and economic emergency, and in doing so it changed the strategic meaning of diversification, storage, and interconnection from long-term preferences into near-term necessities.

The seven compact stories reviewed here are therefore best understood as seven variants of one shared transition problem: how to scale electricity access, reduce dependence on narrow or climate-vulnerable generation portfolios, attract private capital, and restore utility financial credibility within the same policy window. Botswana is moving from coal-led fragility toward solar-led diversification. Lesotho is trying to convert its renewable potential into reliable domestic supply. Malawi is seeking a credible acceleration from

a very low access base. Mozambique is working to align export-scale power development with domestic electrification. Namibia is prioritizing grid strengthening and import reduction. Zambia is using drought shock to justify a sharper solar and transmission pivot. And Zimbabwe is pairing ambitious universal-access targets with utility rehabilitation and network expansion.

This brief provides a comparative analysis of the Energy Compacts submitted by these seven nations. The analysis draws on official National Compact documents (2024-2025), cross-referenced with World Bank and African Development Bank data and Southern African Power Pool reporting.

KEY FINDINGS

A close reading of the seven Southern African compacts reveals a region where energy ambition and structural vulnerability are running in parallel. The countries share climate-exposed power systems, underused regional market architecture, and a financing challenge concentrated in transmission, storage, and utility balance sheets. At the same time, each country starts from a different position, and the gap between stated targets and current delivery capacity is wide enough to matter.

- Divergent but serious access ambitions. Botswana, Zambia, Mozambique, and Zimbabwe target universal household electricity access by 2030. Malawi sets a more conservative but still demanding target of 70% by 2030. Lesotho commits to 100% connectivity but requires 45,300 new connections per year, more than ten times its historical pace. Namibia targets 70% by 2030 and universal access only by 2040. The credibility of these targets depends less on the ambition of the announcements than on the delivery of annual connections, and the compacts reveal that almost every country needs to sustain connection rates well above recent performance.
- Hydro over-dependence as the defining regional risk. Zambia generates 83% of its power from hydropower, Zimbabwe 35% from Kariba alone, Malawi 73% from hydro, Lesotho 69% from the Muela scheme, and Mozambique 74-78% from hydro including Cahora Bassa. The 2023-2025 Kariba drought demonstrated just how quickly climate stress can translate into economic damage. All five hydro-dependent compacts place solar, wind, and battery storage at the center of their 2030 capacity additions as a direct response. Botswana stands apart as the regional outlier, its immediate vulnerability is a coal-heavy fleet with a chronically underperforming thermal anchor (Morupule B).
- Private capital as the hinge variable. Private finance targets range from 33% of total investment in Namibia to 82% in Zambia. The combined private investment expected across the seven compacts exceeds USD 26 billion. At that scale, investor confidence depends directly on whether utilities can achieve cost-reflective tariffs, maintain payment discipline, and offer bankable off-take arrangements. Most utilities in the region are still below full cost recovery, and the compacts acknowledge this constraint more explicitly than has previously been the case in national energy plans.
- Regional integration through the SAPP is advancing but constrained by transmission. SAPP is the continent's first and only power pool operating a competitive electricity market, but in January 2025 only 7% of total traded power in the region moved through competitive channels, the rest passed through bilateral agreements. The dominant constraint is physical infrastructure: transmission bottlenecks cause roughly two-thirds of competitively matched trades to fail to materialize. Every compact in this review includes interconnector or grid expansion commitments that are explicitly motivated by the desire to improve access to regional trade.

- Clean cooking has formally entered national energy strategy. All seven compacts now include explicit clean cooking targets. Botswana sets a 90% access target by 2030 from a current base of 66.6%; Zambia targets 40% from just 8.9%; Zimbabwe targets 70% from 38.6%; and Lesotho targets 75% from 45.2%. This shift represents a meaningful broadening of how energy access is defined in Southern African policy. The funding gap for clean cooking remains large, but its inclusion in compact commitments is a structural step forward.

PILLAR 1: EXPANDING COST-EFFICIENT POWER GENERATION

Achieving cost-efficient power generation in Southern Africa requires tackling two overlapping problems at once. The first is portfolio concentration: most countries in this group depend on a single dominant source: coal in Botswana, hydro in Zambia and Malawi, or imported power in Namibia and Lesotho. This creates fragility when that source underperforms. The second is system quality: high grid losses, underperforming assets, and constrained available capacity mean that installed capacity figures routinely overstate deliverable supply. Morupule B in Botswana, for instance, produced 2,674 GWh in 2024/25 against a theoretical output well above that figure. In Mozambique, Cahora Bassa has 2,075 MW of installed capacity but most of it is committed to South Africa under a power purchase agreement expiring in 2029, leaving the domestic system with only around 1,292 MW of effectively available generation capacity. In Zimbabwe, Kariba, when drought had not eroded its reservoir, still left the grid dependent on Hwange coal units that regularly trip.

The seven countries occupy distinct starting positions and propose distinct transition pathways, but a clear clustering emerges across three strategic types.

Analysis of National Strategies

Table 1 compares the generation mix, grid performance, and utility-related constraints across the seven Southern Africa compact countries, while Table 2 summarizes their current installed capacity and 2030 generation targets.

Table 1. Energy mix and power grid performance

Country	Current Energy Mix	Installed Capacity / Peak Demand	Grid Reliability / Technical Issues	Grid Losses	Utility Financial Position
Botswana	97% comes from coal (Morupule A+B 732 MW); 8.2% RE (74.6 MW solar)	892 MW installed vs 678 MW peak demand	Morupule B under-production; 15% system losses (2022-23)	14.35%	P3.1bn trade payables; average sell price below cost of service
Lesotho	100% RE (72 MW Muela hydro + 30 MW solar)	104.7 MW against ~209 MW peak demand	Supply gap of 50%; heavy import reliance	10% ATC&C	Non-cost-reflective tariffs; LEC Performance Improvement Plan under way
Malawi	73% hydro (398 MW), 18% solar (101 MW), 9% diesel	550 MW installed; ~469 MW available	ATC&C losses 20.73%; ESCOM cost recovery at 77%	20.73% ATC&C	Cost-reflective tariff USD 0.12/kWh vs current USD 0.09; ATAF not enforced
Mozambique	74% hydro (2,193 MW incl. Cahora Bassa 2,075 MW); Gas 15%; Solar 3%	2,922 MW installed; 1,292 MW available domestically	Most of Cahora Bassa exported; T&D losses reduced 24%	24% total	EDM arrears: USD 137 million to IPPs + USD 351 million to HCB

Country	Current Energy Mix	Installed Capacity / Peak Demand	Grid Reliability / Technical Issues	Grid Losses	Utility Financial Position
Namibia	RE 54% (energy basis); 347 MW Ruacana hydro; 120 MW coal (Van Eck)	695 MW installed; firm capacity only 140 MW vs 673 MW peak	59% imported in FY2023; up to 90% at some instances	11.1% ATC&C	NamPower profitability improving (USD 76 million profit 2024 vs USD 48 million loss 2023)
Zambia	83% hydro (3,164 MW); coal 9%; solar 3%; Heavy Fuel Oil 3%; Diesel 2%	3,811 MW installed; fell to 1,019 MW generation in Aug 2024 (drought)	Drought reduced output of installed capacity; load-shedding 3-7 hrs/day	Not disclosed	ZESCO below cost recovery; debt restructuring under way
Zimbabwe	35% hydro (Kariba 1,050 MW); 57% coal (Hwange 1,680 MW)	2,962 MW installed; dependable capacity limited despite peak demand of 2,000 MW	Technical losses 18-20%; connection backlog 467,470	18-20%	ZESA/ZETDC: ~US\$119 million import arrears; tariff raised to 16.08 USc/kWh

Source: National Energy Compact (Mission 300).

Table 2. 2030 targets and current situation

Country	Current capacity (MW) – 2025	2030 target (MW)	Current renewables share	Renewables share target 2030	Target dominant source
Botswana	892 MW	950-1,850 MW	8.2%	50 - 58%	Solar PV
Lesotho	104.7 MW	300 MW	99.6%	100%	Solar / Wind / Hydro (BESS)
Malawi	550 MW	1,400 MW	90% (incl. hydro)	96.1%	Hydro / Solar / Wind
Mozambique	2,922 MW	6,073 MW	78.4%	80.6%	Hydro / Gas / Solar
Namibia	695 MW	1,149 MW	54% (energy)	70%	Solar / Wind / Hydro
Zambia	3,811 MW	10,000 MW	86.2%	≥90% RE (incl. hydro); non-hydro RE to 33%	Solar / Wind / Hydro
Zimbabwe	2,962 MW	5,432 MW	43% (incl. large hydro)	48.6%	Solar / Hydro / Wind

Source: National Energy Compact (Mission 300).

Tables above show seven countries whose shared exposure to climate and import risk sits on top of very different institutional starting points.

- Botswana's constraint is asset performance: a coal fleet (Morupule A+B, 732 MW) exposed to persistent under-production, system losses of 15% (2022-23), and an average sell price below the cost of service.
- Lesotho and Namibia are shaped by small scale and import dependence: Lesotho meets roughly half of its 209 MW peak demand through imports despite being 100% renewable domestically, while

Namibia imported up to 90% of its power at times in FY2023 against a firm capacity gap of over 500 MW.

- Malawi, Mozambique, Zambia, and Zimbabwe share hydro concentration but differ in financial position: Malawi is closest to cost reflectivity (a tariff of USD 0.12/kWh against a current USD 0.09), Zambia and Zimbabwe are still working through debt restructuring and import arrears, and Mozambique's EDM carries the largest documented arrears in the group (USD 137 million to IPPs and USD 351 million to Cahora Bassa's operator, HCB).

The Least-Cost Transition Pathways

The seven countries cluster into three distinct Southern African least-cost transition pathways.

- Zambia and Zimbabwe stand as the region's 'climate-shock converts,' countries whose dependence on hydropower was tolerable until drought turned it into crisis. Zambia's compact responds by targeting 10,000 MW of installed capacity by 2030, with non-hydro renewables rising from 3% to 33% and 3,000 MW of solar added within five years. Zimbabwe mirrors that logic, planning to lift renewable capacity from 1,282 MW to 2,640 MW while simultaneously pursuing the Batoka Gorge scheme (1,200 MW Zimbabwe share) as a shared Zambezi asset that is inherently more resilient than Kariba alone.
- Mozambique and Malawi represent a more complex transition model in which large hydropower expansion and domestic electrification, both proceed simultaneously. Mozambique's 1,500 MW Mphanda Nkuwa project, which reached a development consortium agreement in December 2023, is the largest single asset in this group; but the country's more immediate challenge is that Cahora Bassa's 2,075 MW has historically been directed abroad, leaving a domestic grid with significant T&D gaps and a north-south imbalance that only a 2,000 km backbone expansion can resolve. Malawi's Mpatamanga project (358.5 MW, USD 1.47 billion) would nearly double installed capacity, but Malawi's macro-fiscal constraints and non-cost-reflective tariffs mean that the enabling conditions for private finance are still being assembled.
- Botswana, Namibia, and Lesotho face a different configuration. Botswana's transition starts from coal fragility. Its compact targets 50% renewables by 2030, backed by 1.5 GW of planned solar, and the change requires not just new capacity but a structural market reform: IPP procurement pathways, wheeling rules, and a cost-of-service framework that Botswana Power Corporation (BPC) has historically lacked. Namibia begins from heavy import dependence (up to 90% at some instances) and a firm capacity gap of over 500 MW; its path to reliability runs through grid strengthening and domestic solar and wind additions rather than large hydro. Lesotho is the smallest system in the group, with only 104.7 MW of domestic installed capacity against a peak demand of about 209 MW, yet it sits on significant renewable potential, solar, wind, and hydro, that its new pipeline of projects is designed to unlock.

Key Issue: Sequencing in Zambia & Zimbabwe

The Kariba drought crisis crystallized what had previously been a theoretical concern about hydro concentration. According to the Zambezi River Authority's weekly report on Lake Kariba water levels and power generation, Zambia's generation capacity fell from a theoretical 3,811 MW to 1,019 MW in August 2024. That collapse happened inside a system still carrying ZESCO's legacy debt, a tariff structure that does not yet fully recover costs, and an open-access framework that had only just been legislated. The lesson is a single-source system has essentially no buffer when that source underperforms. New solar and storage commitments are therefore risk-management necessities. Zimbabwe faces the same

structural argument. Hwange's coal units have a history of unplanned outages, and Kariba's hydrology is driven by the same Zambezi basin rainfall patterns that depleted Zambia's generation. Both countries are building out solar capacity and pursuing Batoka Gorge as part of a resilience strategy. Until cost recovery improves, utility creditworthiness is restored, and the interconnection pipeline translates from plans into energized lines, both countries remain exposed to a repeat of 2024.

Enabling Market and Regulatory Conditions

The generation targets outlined in the compacts will only be achieved if the right planning and procurement foundations are in place. All seven countries are now anchoring new capacity decisions in some form of least-cost integrated planning: Botswana's Integrated Resource Plan (IRP, 2020) sets a 20-year least-cost pathway that already governs its solar and gas procurement; Namibia's National Integrated Resource Plan (NIRP), now in its third iteration (2022), performs the same function under the Modified Single Buyer market; Zambia's IRP-2050, developed under the NEAT program alongside the ZESCO and Rural Electrification Authority strategic plans, extends least-cost planning out to mid-century; Malawi's Integrated Energy Plan applies least-cost geospatial analysis to both grid and off-grid investment choices; Mozambique's Integrated Electricity Master Plan (2018-2043) performs a similar role, complemented by a least-cost Integrated Energy Access Plan for last-mile connections; and Zimbabwe's Least Cost Geospatial Electrification Plan (LCGEP) underpins its 2025-2030 National Electrification Strategy. Lesotho is the outlier: its new Energy Bill creates an independent Energy Commission for the first time, but a comparable least-cost generation plan has yet to be published, a gap that matters given the country's need to more than quadruple its annual connection rate.

Competitive procurement is advancing at different speeds across the group. Botswana's Private Energy Development Unit, created as the country's IPP office, and its AfDB-funded Cost-of-Service Study together provide the institutional and analytical basis for moving away from unsolicited proposals. Zambia is going further, pairing a Multi-Year Tariff Framework with a planned Independent System and Market Operator that would end ZESCO's historic role as both buyer and system manager. Zimbabwe's Government Project Support Agreement targets operational competitive procurement by Q2 2026. Mozambique already runs competitive renewable tenders under PROLER and Get.Fit, alongside the strategically selected Mphanda Nkuwa consortium. Namibia is updating its Modified Single Buyer model to raise the IPP share of installed capacity from 19% to over 40% by 2030. Malawi and Lesotho are the least advanced on this dimension, with both compacts describing procurement reform as a work in progress rather than an operating system.

PILLAR 2: BOOSTING REGIONAL POWER INTEGRATION FOR CROSS-BORDER TRADE

Regional power integration is arguably the single most important structural lever available to Southern African energy planners, and the Southern African Power Pool provides the institutional architecture through which it operates. Founded in 1995, SAPP is the first power pool in Africa and the only one with a functioning competitive electricity market. Its Day-Ahead Market (DAM), introduced in 2009, allows members to buy and sell electricity at financially binding day-ahead prices. Twelve countries are active market participants. Yet despite this institutional maturity, in January 2025, only 7% of total traded power in the SAPP region moved through competitive channels, with 888 GWh going through bilateral agreements against just 71 GWh traded competitively. The dominant explanation is infrastructure: transmission bottlenecks cause the majority of competitively matched trades to fail to settle because the physical path does not exist or is congested.

This gap between institutional design and physical delivery defines the regional integration challenge for Mission 300 in Southern Africa. Unlike Eastern Africa, where the Eastern Africa Power Pool is still building foundational market mechanisms, SAPP already has the rules. What it lacks is the wires. Every compact in this review includes interconnection commitments that are essentially responses to that diagnosis.

SAPP Architecture and Transmission Bottlenecks

SAPP's competitive market has grown significantly in structure and participation over the past decade. The DAM operates under a zonal pricing model, and the SAPP Coordination Centre in Harare manages dispatch and settlement across member countries. In February 2025, the DAM accounted for 96% of competitive volumes (115.3 GWh, up 85% month-on-month), with 13 active members and 21 portfolios, including five Independent Power Producers (IPPs), two from Zambia and one each from the Democratic Republic of Congo, Namibia, and Zimbabwe.

However, the key bottleneck is grid capacity. SAPP's own analysis indicates that roughly two-thirds of competitively matched trades fail to materialize because the necessary transmission infrastructure does not exist or cannot handle the required flows. The SAPP launched the Regional Transmission Infrastructure Financing Facility (RTIFF) in 2024 specifically to address this structural barrier, recognizing that no amount of market-rule improvement would substitute for actual wire.

AfDB Operations and the Regional Infrastructure Push

The AfDB has committed USD 18 billion to Mission 300 across its 2024-2030 program, targeting access for 50 million people as part of the broader initiative. In Southern Africa, its engagements combine infrastructure financing, technical assistance, and institutional capacity support across the compact group.

The most consequential near-term regional infrastructure project is the ZIZABONA interconnector, a 422 km, 400 kV line (operating initially at 330 kV) linking Zimbabwe, Zambia, Botswana, and Namibia along the Western SAPP corridor. ZIZABONA is designed to transfer up to 300 MW and to decongest the heavily loaded central corridor through Zimbabwe, which currently acts as the main spine of SAPP's physical network and is already close to capacity. The AfDB funded the feasibility and technical studies for ZIZABONA and committed roughly 40% of the debt financing in a package that also includes the Development Bank of Southern Africa (USD 50 million) and the Agence Française de Développement (AFD, USD 30-50 million), with a total estimated project cost of approximately USD 223 million.

Beyond ZIZABONA, the AfDB is engaged on Cahora Bassa rehabilitation in Mozambique (a package of up to EUR 125 million – EUR 100 million AfDB and EUR 25 million from the Africa Growing Together Fund, 2022), acting as adviser and credit-enhancement structurer for the Mphanda Nkuwa development, and supporting Malawi's Kapichira and Nkula B rehabilitation through a USD 22.9 million African Development Fund grant approved in 2025. For Botswana and Zimbabwe, AfDB engagement in recent years has been predominantly in technical assistance and sector reform preparation rather than new construction lending, a reflection of the fact that institutional and policy conditions are the current binding constraint.

Table 3. Interconnection infrastructure

Project	Countries	Technical Specs	Length	Capacity	Status	Operators	Financing
ZIZABONA (Western Corridor)	Zimbabwe - Zambia - Botswana - Namibia	400kV (initially 330kV)	422 km	300 MW	Under construction (partial)	SAPP Coordination Center; national TSOs	AfDB (40% debt), DBSA (USD 50 million), AFD (USD 30-50 million)

Project	Countries	Technical Specs	Length	Capacity	Status	Operators	Financing
Mphanda Nkuwa	Mozambique (export to region)	BOOT hydro scheme + 1,300-1,400km Tete-Maputo line	1,400 km (transmission)	1,500 MW generation	Financial close 2027; operations 2032	EDM, HCB; EDF (40%), TotalEnergies (30%), Sumitomo (30%)	EU/EIB EUR 500 million; AfDB credit enhancement facility (TBD)
MOMA (Mozambique-Malawi)	Mozambique - Malawi	400kV AC	218 km	Initial 50 MW (extendable)	Near completion 2025/26	SAPP / EDM / ESCOM	World Bank, regional cooperation
Batoka Gorge	Zambia - Zimbabwe	Large hydro PPP	Zambezi River	2,400 MW (1,200 MW each)	Feasibility update 2025; financial close TBD	Zambezi River Authority; ZPC/ZESCO	PPP; Zambia & Zimbabwe each committed USD 220 million (2025)
ZTIP (Zambia-Tanzania)	Zambia - Tanzania (SAPP-EAPP link)	HVAC transmission	620 km	400 MW Transfer	Under development	TANESCO; ZESCO	USD 295 million (IDA USD 245 million)
ANNA (Angola-Namibia)	Angola - Namibia	400kV AC	166 km main line (+270 km regional links)	Up to 500 MW transfer (300 MW Take-or-Pay)	Agreements signed (April 2026); Active pre-construction; COD ~2029	NamPower; ENE Angola	Namibia National Energy Fund (N\$4 billion / USD 220 million), World Bank IBRD (Angola side pipeline)

Source: National Energy Compact documents 2025; AfDB project pages; SAPP Market Performance Reports.

Remaining Integration Gaps and the Road to a Functioning Regional Market

Despite the scale of investment under way, several barriers continue to limit the volume and reliability of regional power trade in Southern Africa.

First, the physical infrastructure pipeline runs well ahead of procurement and financial close. Batoka Gorge, the largest single project in the group, with 2,400 MW and an estimated cost of USD 4-5 billion, has seen its development timeline extend by several years: the 2019 GE/PowerChina deal was cancelled in 2023, a new feasibility study was commissioned only in late 2025, and financial close remains some years away. Mphanda Nkuwa is further advanced, with a development consortium in place since December 2023, but financial close is not projected before 2027 and commercial operations not before 2032.

Second, SAPP's competitive market remains constrained by asymmetric utility creditworthiness. South Africa's Eskom, despite its own severe financial difficulties, remains the pool's dominant single entity. Smaller utilities, such as ZETDC in Zimbabwe, ZESCO in Zambia, face payment credibility challenges that

affect their ability to enter reliable bilateral contracts and, by extension, the willingness of larger SAPP members to commit to inter-country trades.

Third, wheeling charge arrangements, the tariffs for transmitting power across a third country's network, remain underdeveloped in several corridors. This creates a structural disincentive for the multi-country transit arrangements that would unlock the full value of the SAPP footprint. Botswana's compact explicitly identifies wheeling framework development as a prerequisite for realizing its IPP export ambitions.

PILLAR 3: SCALING UP LAST-MILE ELECTRIFICATION WITH DISTRIBUTED RENEWABLE ENERGY SOLUTIONS

Rural Electrification: Targets and Strategies

For the first time in the history of Southern African energy planning at this scale, the compacts treat mini-grids and solar home systems (SHS) as durable components of national electricity infrastructure. Extending the national grid to every household by 2030 is financially and logistically impossible in most of these countries; the compact commitments reflect an honest acknowledgment of that reality and a shift toward least-cost access planning that combines grid densification in peri-urban areas with distributed renewable solutions in dispersed rural communities.

Table 4 below compares rural electrification targets and off-grid strategies across the seven countries.

Table 4. Rural electrification targets and off-grid strategies

Country	Current Access (National)	2030 Target	Off-Grid Strategy	Priority Technology	Clean Cooking Target
Botswana	76.6%	100%	Off-Grid Solar Fund (OGSF); 4 mini-grid pilots; 61,000 off-grid connections	Solar PV + mini-grids for 81 unserved villages	90%
Lesotho	53% (rural 11.4%)	100%	18,900 off-grid connections/year; 11 existing mini-grids; 10 more under World Bank procurement	Solar PV + wind hybridization	75%
Malawi	25.9% (rural grid 3.8%)	70%	244,000 SHS/year + 13,600 mini-grid households/year; National Energy-Sector Fund	Solar PV + mini-hydro	75%
Mozambique	60.1% (rising from 31% in 2018)	100%	700,000+ SHS sold 2020-24; 98 FUNAE mini-grids; 8 PAYGO companies; 42 mini-grids tendered for private O&M	PAYGO solar; mini-grid PPPs	54%
Namibia	59.5%	70% by 2030	34,000 off-grid household/SME connections; Solar Revolving Fund	Solar PV (commercial scale)	61%

Country	Current Access (National)	2030 Target	Off-Grid Strategy	Priority Technology	Clean Cooking Target
Zambia	53.6% (rural 34.9%)	100%	1,440,007 SHS + 328,304 mini-grid connections targeted; 1,000 mini-grid initiative; USD 2.2 billion off-grid investment	Solar PV + mini-grids + BESS	40%
Zimbabwe	62%	100%	502 solar mini/micro-grids for rural institutions; Presidential Rural Solarization Scheme (1kW for +1 million households); 200,000 off-grid/year	Solar PV + BESS; SHS PAYGO	70%

Source: National Energy Compact (Mission 300).

Enabling Regulatory Frameworks

The regulatory maturity gap across the seven countries is wide enough to matter in terms of execution risk. Botswana is operationalizing an Off-Grid Solar Fund designed to channel concessional finance to private mini-grid developers in villages that the national grid cannot reach economically, with the first four mini-grid pilots already under procurement. Zambia's compact describes a market-opening approach, open access, the Electricity Open Access Framework, and a 1,000 mini-grid initiative underpinned by a Demand Stimulation Incentive. Zimbabwe's Presidential Rural Solarization Scheme takes a different route, using a government-financed program to deploy 1 kW solar systems in over one million rural households while a private regulatory framework is built out in parallel.

In Malawi, Mozambique, and Lesotho, donor-funded programs remain the primary delivery mechanism for off-grid electrification. Malawi's Ngwee Ngwee Ngwee Fund, intended to evolve into a National Energy-Sector Fund, provides the scaffolding for blended finance at the community level, but the broader investment case for private developers remains constrained by the same tariff and forex conditions that affect on-grid IPPs. Mozambique's FUNAE has an active mini-grid portfolio but 99% of its assets were built by the utility itself; the shift toward private operation and maintenance, for which 42 mini-grids are being tendered, is an important step toward a more sustainable delivery model.

Access to clean cooking

Clean cooking is emerging as a central element of Southern Africa's energy transition story, though funding for it still lags well behind its strategic importance. In the majority of countries in this review, more than 60% of the population still relies on solid biomass, firewood and charcoal, for daily cooking. The public health, environmental, and economic costs are well documented: indoor air pollution, forest degradation, and the disproportionate time burden on women and girls. The compacts now address this with quantified 2030 targets for the first time, marking a meaningful shift in how energy access is framed.

Table 5. Access to clean cooking

Country	Current Access	2030 Target	Households to Reach	Priority Technologies
Botswana	66.6% (urban 86.9%, rural 25.3%)	90%	+260,000 households	LPG, ICS, electric cooking
Lesotho	45.2%	75%	Not specified	LPG, ICS, solar cooking
Malawi	Clean fuels used by only 2% households	75%	Not specified	Improved biomass stoves, LPG, biogas
Mozambique	17% (LPG 14%, other 3.4%)	54%	4.5m households	LPG scale-up, ICS, electric cooking (linked to Mphanda Nkuwa)
Namibia	48.5% (urban 77.1%, rural 13.8%)	61%	+200,000 households	LPG, ICS (clean cooking largely absent from nat'l energy strategy)
Zambia	8.9% clean; 16.2% using clean sources	40%	Not specified	LPG, ICS, biogas, e-cooking
Zimbabwe	38.6%	70%	Firewood/charcoal use to fall 50%	LPG, ICS, e-cooking (linked to ZPC IPPs)

Source: National Energy Compact (Mission 300).

The contrast between Zambia and Botswana captures the two ends of the Southern African clean cooking spectrum. Zambia, with only 8.9% clean cooking access, faces one of the most severe biomass-dependence challenges in the region, a consequence of deep rural poverty, large geographic dispersal, and decades of energy policy that treated cooking fuel as a household welfare question rather than an energy-sector question. Its compact target of 40% by 2030 is ambitious relative to its base, but even its successful attainment would leave the majority of Zambian households still cooking on solid biomass at the end of the decade. Botswana, at 66.6%, faces a more tractable challenge in aggregate terms but a stark urban-rural divide: rural clean cooking access is just 25.3%, and the least-cost pathways for dispersed households are different from those serving urban areas with functioning LPG distribution networks.

Namibia represents a distinctive gap: despite being the highest-income country in this group and having the most technically advanced utility, clean cooking is largely absent from the national energy and climate strategy. Its compact acknowledges this, but the absence of a structured support program means that the 13.8% rural clean cooking rate is unlikely to improve quickly without a specific policy intervention.

Mozambique's clean cooking story illustrates how electrification strategy and cooking strategy can be designed as complementary agendas. The country's compact targets 54% clean cooking access by 2030, with LPG rising from 14% to 23% and other clean fuels rising from 3.4% to 31%. The compact links the electric cooking pathway to Mphanda Nkuwa's expected commercial operations in 2032, a recognition that the viability of e-cooking at scale depends on generation capacity that does not yet exist. That kind of sequencing logic is more sophisticated than simply listing clean cooking targets alongside electrification targets, and it reflects an understanding that technology choice is contingent on infrastructure availability.

PILLAR 4: UNLOCKING PRIVATE INVESTMENT THROUGH SUPPORTIVE REGULATORY FRAMEWORKS

Private investment is a structural necessity in the Southern African compact story. The combined total investment need across the seven countries exceeds USD 50 billion, and public finance and concessional development lending can cover only a fraction of that requirement. Even the most optimistic scenarios for AfDB and World Bank commitments in this region leave the majority of generation and distribution investment dependent on private capital. The challenge, which every compact acknowledges in some form, is that private investors follow bankable transactions, not policy signals.

National Regulatory Frameworks

Zambia presents the most structurally ambitious private-sector strategy in the group. Its compact combines open-access legislation, a Multi-Year Tariff Framework (MYTF) targeting cost recovery by 2027, an Energy Single Licensing System, and the creation of an Independent System and Market Operator, the last of which would end ZESCO's historic role as both buyer and system manager. The target is USD 9.5 billion in private investment out of USD 11.88 billion in total need (82%). That ratio is credible only if the enabling conditions are operationalized on schedule. ZESCO's current creditworthiness is the weakest link: its debt restructuring is ongoing, and until the utility can demonstrate payment discipline under the new tariff framework, private developers face a binary risk between sovereign performance and commercial return.

Zimbabwe takes a de-risking rather than market-liberalization approach to the same challenge. The Government Project Support Agreement (GPSA) is designed to reduce the three risks that most frequently deter IPP investment in the country: political risk (contract renegotiation or retrospective changes), tariff risk (below-cost-recovery settings that erode project economics), and currency-convertibility risk (inability to repatriate returns). Zimbabwe targets USD 4.42 billion in private investment from a USD 9.13 billion total. The compact specifies that competitive procurement should be operational by Q2 2026, a milestone that will signal whether the GPSA framework is being backed by institutional capacity or remains aspirational language.

Botswana is in an earlier enabling phase. Its Private Energy Development Unit (PEDU) was established as the IPP Office to manage competitive procurement, and the AfDB-funded Cost-of-Service Study provides the analytical foundation for a cost-reflective tariff. Botswana's private investment range is wide, USD 646 million to USD 1.57 billion, because the upper end requires securing regional offtake for IPP exports via SAPP wheeling, which in turn requires the wheeling framework development and market-structure review that the compact commits to completing by 2026.

Mozambique and Malawi rely most heavily on multilateral de-risking instruments. Mphanda Nkuwa's financing package includes an AfDB credit-enhancement facility and EU/EIB commitments of EUR 500 million (EUR 200 million generation and EUR 300 million transmission), with financial close expected in 2027. Malawi's Mpatamanga project is structured around a World Bank partial risk guarantee as a core de-risking element, with total financing of USD 1.47 billion against a government fiscal capacity that remains severely constrained by the November 2023 IMF Extended Credit Facility program. For both countries, the honest conclusion is that their private-investment targets depend more on development-finance institution risk absorption than on domestic market conditions, at least for the near term.

Lesotho and Namibia sit at the foundation-building end of the spectrum. Lesotho's Energy Bill, which creates a Rural Energy Agency, an independent Energy Commission, a National Energy Fund, and a one-stop investment facilitation center, provides the statutory framework for IPP development; but LEC's financial instability and the absence of a track record in competitively procured renewable projects means that private developers will be watching institutional performance before committing capital. Namibia targets a rise in the IPP share of installed capacity from 19% (2024) to over 40% (2030), supported by a National Electrification Strategy, a National Electrification Funding Portfolio, and a regulatory update to the Modified Single Buyer model; but its target remains modest in absolute dollar terms (USD 411 million private from a USD 1.764 billion total, excluding the USD 1.6 billion Baynes hydropower scheme).

Results-Based Financing as a De-risking Tool

Across the compact group, results-based financing (RBF) is emerging as a preferred mechanism for off-grid electrification because it links disbursements to verified outcomes and shifts the risk of non-performance away from the public budget. Zambia's Demand Stimulation Incentive for the 1,000 mini-grid initiative follows this logic. Zimbabwe's Presidential Rural Solarization Scheme uses output-linked disbursements. Malawi's Ngwee Ngwee Ngwee Fund and Mozambique's FUNAE tendering process both incorporate elements of performance-conditionality. The AfDB's Sustainable Energy Fund for Africa (SEFA) provides catalytic RBF-compatible finance across the region, including for the Ilute 25 MW solar project in Zambia (USD 8 million of a USD 26.5 million package) and the Garneton North 20 MW solar project, which comprises a USD 7.27 million direct AfDB contribution matched by an equal amount of concessional funding.

At COP30 in November 2025, SEFA mobilized nearly EUR 50 million in new commitments for Southern and Eastern Africa, including Germany's EUR 14 million for energy access and EUR 30 million for green hydrogen, and Italy's EUR 5 million. These commitments are relatively small against the scale of the investment gap, but they play an outsized role in demonstrating commercial viability to mainstream institutional investors.

PILLAR 5: STRENGTHENING UTILITIES WITH TRANSPARENT FINANCIAL MANAGEMENT AND COST RECOVERY

The utilities across the seven compact countries span a wide spectrum of financial and operational performance, but none has fully escaped the sector's defining structural problem: tariffs that do not cover the cost of supply, combined with technical and commercial losses large enough to compound the gap. The result is a broadly shared pattern in which utilities cannot maintain assets, cannot attract private counterparts for bankable PPAs, and cannot access debt markets without sovereign backing. Getting these institutions to a point of commercial viability is not a utility-sector reform in the narrow sense, it is the precondition for the entire Mission 300 investment agenda.

- **NamPower (Namibia):** the most commercially stable utility in the group, with losses of 11.1% and a return to profitability in 2024 (USD 76 million profit against a USD 48 million loss in 2023). NamPower's cost-plus tariff is transitioning to a Performance-Based Regulation framework by 2026-2027 under the Electricity Control Board, which provides a structured pathway to cost-reflective pricing. Its primary challenges are import dependence (up to 90% at certain times) and the firm capacity gap (140 MW against 673 MW peak demand), both of which reflect the infrastructure investment deficit.
- **BPC (Botswana Power Corporation):** posts recurring operating losses and carries P3.1 billion in trade payables as of 2023, with a current ratio of 0.3. Its average selling price of 127 Thebe/kWh sits below the cost of service of 159 Thebe/kWh. A USD 825 million ICBC loan is on the balance sheet. The AfDB-funded Cost-of-Service Study and the associated tariff reform process are the most important near-term developments, but they need to be translated into a credible multi-year tariff determination before private developers will treat BPC as a bankable off-taker.
- **EDM (Mozambique):** has maintained a cost-recovery position since 2021, which is notable given the scale of system losses (29%) and the complexity of the sector structure. However, arrears of approximately USD 137 million to IPPs and USD 351 million to the Cahora Bassa company (HCB) represent serious short-term liquidity risks, and the 2022 tariff methodology remains unapplied. EDM's position as a credible off-taker for Mphanda Nkuwa's future generation output will depend

on whether these arrears can be restructured and whether the new tariff methodology is actually implemented on a predictable schedule.

- **ESCOM / EGENCO (Malawi):** operates at 77% cost recovery, a gap that the non-enforcement of the Automatic Tariff Adjustment Formula (ATAF) has prevented from closing. Revenue collection efficiency is 90-93%, which is relatively healthy, but the mismatch between the current tariff of USD 0.09/kWh and the cost-reflective level of USD 0.12/kWh creates a structural cash shortfall that limits ESCOM's ability to maintain infrastructure and service debt. The compact explicitly commits to ATAF enforcement, but the credibility of that commitment depends on political will in a country under an IMF program.
- **LEC (Lesotho Electricity Company):** operates with non-cost-reflective tariffs and weak revenue collection. A World Bank Performance Improvement Plan has been completed, but the underlying structural issue, a system that imports roughly 50% of its supply at prices higher than its regulated domestic tariff, remains unresolved without either a tariff increase or a sustained reduction in import costs through domestic renewable addition. LEWA, as the regulator, is the institutional actor with the most leverage over LEC's financial trajectory.
- **ZESCO (Zambia):** is the most challenged utility in the group in terms of the gap between current performance and the requirements for serving as a credible off-taker for the private-dominated 2030 investment program. Debt restructuring is ongoing, and cost recovery at 100% is targeted by 2027 under the Multi-Year Tariff Framework. Load-shedding of 3-7 hours per day continues in normal periods. The key watchpoint is whether the 2027 cost-recovery milestone can be reached on schedule; a delay would stall Zambia's 82% private-investment target.
- **ZESA Holdings / ZETDC (Zimbabwe):** carries approximately USD 119 million in import arrears and a connection backlog of 467,470 pending customers as of May 2025. Tariffs were raised from 11.3 to 16.08 US cents per kWh in a step toward cost recovery, with the target of 100% operational cost recovery by Q4 2027. Technical losses running at 18-20% against a target of 14% represent both a financial drain and a barrier to the 1,607 km of new transmission the compact specifies. ZETDC's rehabilitation sits on the critical path for Zimbabwe's entire access and integration agenda.

Cost Recovery and Tariff Reform

Across the seven countries, tariff structures remain the single most important institutional variable in the Mission 300 agenda, because they link utility financial sustainability, off-taker credibility, and private investor confidence into a single chain. Below-cost-recovery tariffs create a structural disconnect that no amount of project-level de-risking can fully overcome: without revenues that reflect the actual cost of supply, utilities cannot maintain assets, service debt, or present credible payment schedules to independent power producers.

The compacts address this with varying degrees of specificity and political realism. Zimbabwe's commitment to 100% operational cost recovery by Q4 2027, with the tariff already raised and competitive procurement scheduled for Q2 2026, is the most structured and time-bound. Zambia's Multi-Year Tariff Framework establishes a clear process but leaves the outcome contingent on ZESCO's debt restructuring. Botswana links its tariff reform to the completion of the AfDB-funded Cost-of-Service Study, which at least grounds the future tariff determination in a documented cost base. Malawi's ATAF enforcement commitment is the most explicit acknowledgment that the problem is political will rather than technical knowledge, the mechanism for automatic annual adjustment already exists and is simply not being applied.

Transparent Financial Management

Financial transparency is a related but distinct challenge. Several utilities in the group have historically operated without timely audited accounts, creating a situation in which it is genuinely difficult for any external partner, investor, lender, or regulator, to form an accurate view of the institution's financial position. Zimbabwe's ZETDC, Zambia's ZESCO, and Malawi's ESCOM all carry disclosure gaps of varying severity. The compacts' explicit commitments to publish audited financial statements and implement performance improvement plans represent a meaningful change in the direction of travel, even if the pace of change remains slower than the investment agenda requires.

The African Development Bank, the World Bank, and their partner institutions have a direct role in supporting transparent financial management through technical assistance, performance improvement plan design, and conditions attached to sector lending. The ASCENT program's country-level components typically include utility reform elements: Malawi's ASCENT package includes financial management support for ESCOM, Zambia's package incorporates ZESCO performance milestones, and Mozambique's ProEnergia+ program (EUR 343 million) is explicitly linked to EDM's commercial performance trajectory.

COMPARATIVE ANALYSIS OF FINANCING NEEDS

Across the seven Southern African compacts, total identified investment needs exceed USD 50 billion. While the overall financing requirement is significant, the balance between public, donor, and private financing differs markedly from one country to another in terms of market maturity, investment readiness, and scale of reform commitments.

Table 6. Investment amounts

Country	Total investment	Public / donors share	Private sector share	Most capital-intensive Segment
Botswana	USD 2.06-2.98 billion	47-78%	22-53%	Solar generation & grid
Lesotho	USD 1.97 billion	25%	75%	Solar, wind, BESS pipeline
Malawi	USD 5.50 billion	70%	30%	Generation (Mpatamanga PPP)
Mozambique	USD 18.62 billion	53%	47%	Generation (Mphanda Nkuwa) & T&D backbone
Namibia	USD 1.76 billion	77%	23%	Grid strengthening & solar
Zambia	USD 11.88 billion	24%	76%	Generation (solar, hydro)
Zimbabwe	USD 9.13 bn	54%	46%	Generation (90% private) & transmission

Source: National Energy Compact (Mission 300).

The financing challenge looks very different once investment needs are read against the size, fiscal space, and market depth of each economy. Mozambique's USD 18.6 billion figure is the largest in absolute terms, but significant portions are expected from private developers for Mphanda Nkuwa, a project that has a development consortium but not yet financial close. Zimbabwe's USD 9.1 billion is a phase-1 figure within

a larger USD 16.8 billion envelope, with 90% of generation investment expected from the private sector. Zambia's 82% private share is the most ambitious ratio in the group and rests on the assumption that ZESCO's creditworthiness improves on schedule.

At the other end of the scale, Lesotho's USD 1.97 billion total is modest in absolute size but significant relative to a GDP of roughly USD 2.5 billion. Its 75% private share is similarly demanding for a market that has not yet established a track record of competitively procured renewable projects. Namibia's headline figure of USD 1.764 billion is the most clearly anchored in financed or near-financed transactions, but it excludes the USD 1.6 billion Baynes hydropower scheme, a decision that understates the country's true investment ambition significantly.

STRUCTURAL GAPS AND IMPLEMENTATION CHALLENGES

The seven Southern African compacts represent a step change in how these countries articulate their energy transition strategies. The inclusion of quantified targets for clean cooking, off-grid electrification, and private-sector financing ratios goes well beyond previous national energy plans in both specificity and ambition. But the analytical review across the five pillars points to several structural challenges that will determine how much of this ambition translates into delivered outcomes.

The access-target credibility gap is mostly about pace. Botswana, Zambia, Zimbabwe, and Mozambique all carry universal-access horizons for 2030, but their own compact numbers reveal the delivery challenge. Zimbabwe requires 320,000 on-grid plus 200,000 off-grid connections per year, a pace that implies a tenfold increase over recent historical performance for on-grid connections. Zambia needs to double annual grid connections to 120,000 while simultaneously rolling out over 1.7 million off-grid solutions. Mozambique requires 423,000 on-grid and 435,000 off-grid connections annually. The region's main access question is therefore whether annual delivery capacity can move fast enough to make targets credible. That requires financing as well as procurement capacity, trained installation crews, functioning metering and billing systems, and grid infrastructure that can absorb new loads.

Hydro dependence is the defining risk that the compacts are responding to, but solar transition has its own delivery constraints. Zambia's target of adding 3,000 MW of solar by 2030 is technically achievable but requires procurement pipelines, grid-connection capacity, and storage infrastructure that do not yet exist at the required scale. Zimbabwe's solar ambitions face the same infrastructure constraint, compounded by ZETDC's legacy debt and the difficulty of managing variable generation on a network with 18-20% technical losses. The solar transition is the right strategic direction for the region; the risk is that the institutional prerequisites for executing it at scale are underestimated in the compact commitments.

Utility reform is the central condition for progress across every other pillar. Private investment in generation depends on creditworthy off-takers. Regional power trade depends on financially viable utilities that can enter and honor bilateral contracts. Off-grid electrification depends on regulatory frameworks that can be enforced by competent institutional actors. Clean cooking depends on standards systems and market oversight that are downstream of functioning energy-sector institutions. In every compact in this review, utility financial rehabilitation and transparent management are commitments, but their delivery timelines are the most politically exposed element of the entire agenda. Cost recovery by 2027, the target year for both Zambia and Zimbabwe, will require political decisions about tariff levels that directly affect household energy costs in countries with significant poverty rates.

Transmission is the most stubborn bottleneck and the most underfunded. The compacts collectively describe an interconnection pipeline worth several billion dollars, ZIZABONA, the evacuation lines for Batoka Gorge transmission, Mphanda Nkuwa's 1,400 km backbone, Zimbabwe's 1,607 km of planned network, Zambia's seven new international interconnectors, and Namibia's ANNA and other corridors. But

the financing of transmission is structurally more difficult than the financing of generation because it does not generate direct revenue streams attractive to private equity. Most transmission investment requires sovereign or quasi-sovereign balance sheets, concessional lending, or development-bank guarantees. The SAPP RTIFF is a recognition of this gap, but its capitalization is still well below the scale of the investment it needs to catalyze.

The bottleneck in Southern Africa is the capacity to translate reforms into bankable projects, credible procurement, and executable grid investments. The compacts define sizeable investment pipelines, but give less attention to the transaction capacity, procurement systems, and utility governance needed to move projects from commitment to financial close. Effective procurement of large energy infrastructure requires competent and independent regulators, experienced transaction advisory capacity, functioning procurement agencies, and legal systems that can enforce contracts on commercially realistic timelines. In Malawi, Lesotho, and Zimbabwe especially, the gap between the ambition of the compact commitments and the current institutional capacity to deliver on them is large enough to be a material risk to execution.

CONCLUSION

The seven Southern African compacts point to a regional energy transition shaped by more than infrastructure deficits alone. The central lesson from the 2023-2025 drought is that energy security in Southern Africa can no longer rest on narrow generation portfolios, whether hydropower in Zambia, Zimbabwe, Malawi, Lesotho, and Mozambique, coal in Botswana, or imported supply in Namibia. Diversification into solar, wind, storage, and more flexible dispatch is therefore a macroeconomic risk management strategy designed to protect households, firms, public finances, and regional trade from the next climate or fuel supply shock.

The second lesson is that Southern Africa's regional integration challenge is different from that of other African regions. SAPP already has a functioning competitive market and established trading rules. The binding constraint is increasingly physical and financial: insufficient transmission capacity, congested corridors, underdeveloped wheeling arrangements, and the difficulty of financing grid infrastructure that does not offer the same revenue profile as generation assets. In this context, interconnectors, storage, dispatch systems, and transmission-financing facilities are not secondary infrastructure; they are the backbone of the region's energy transition.

The third lesson is that utility reform must be treated as a regional market issue, not only a domestic financial-management concern. Cost recovery, audited accounts, payment discipline, and credible performance-improvement plans are essential for attracting IPPs, but they are also necessary for reliable bilateral trade, SAPP market liquidity, and the bankability of cross-border infrastructure. Weak utility balance sheets in one country can therefore constrain regional power flows well beyond national borders.

For the African Development Bank, this creates a distinct strategic role in Southern Africa. The Bank should position its support as a resilience-and-integration package: accelerating transmission and interconnector finance, de-risking solar, wind, and storage pipelines, supporting utility turnaround plans, and helping SAPP countries convert market rules into delivered power. The success of the Southern African compacts will ultimately depend on whether countries build systems capable of withstanding climate shocks, moving power across borders, and sustaining credible commercial relationships across the regional electricity market.

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