MISSION 300
#PoweringAfrica

NATIONAL ENERGY COMPACT
FOR THE KINGDOM OF LESOTHO

Preamble

The Government of Lesotho is committed to ensuring reliable, affordable, sustainable, inclusive, and clean energy for all. This National Energy Compact serves as a roadmap to accelerate the pace of access to energy toward that goal.

The Energy sector in Lesotho has undergone significant transformation over the years laying a foundation for a more sustainable and inclusive energy future. While the country has made notable progress in expanding access to electricity, achieving universal energy access remains a key priority. As of July 2025, Lesotho has electrified 303,074 households through grid extension and an additional 840 households through mini-grids, contributing to the country's overall electrification efforts. However, with 569,631 total households, a considerable portion of the population (47%) still lacks access to modern energy services.

To accelerate electrification, the Government of Lesotho (GoL) is adopting a clustering approach which will divide the country into off-grid mini-grid, standalone systems and clean cooking solutions and on-grid (grid densification) areas. Despite these efforts, challenges remain, including limited private sector investment, the need for a comprehensive subsidy framework in areas where commercial investments are economically not viable, aging energy infrastructure, a financially unstable electricity utility and heavy reliance on traditional fuels for cooking. In response to these, the Government through the Ministry of Energy (MoE) is reviewing mini-grid regulations and exploring the establishment of a National Energy Fund (NEF) to support financing for rural based electrification initiatives. Additionally, financial support mechanisms, including capital investment subsidies, Results-Based Financing (RBF) and connection fee subsidies, are needed to encourage private sector participation.

Lesotho is committed to achieving universal energy access by 2030, ensuring that all Basotho have access to affordable, reliable and sustainable energy. To realise this vision, the country must significantly scale up investments in energy infrastructure, attract private-sector participation and mobilise financial resources to support energy expansion and clean cooking initiatives.

This National Energy Compact (NEC) is the result of extensive stakeholder engagement and collaboration with Government Ministries, development partners, the private sector and civil society, all of whom play a crucial role in transforming the energy landscape. Recognising that achieving universal access requires a coordinated and well-resourced approach, the Government of Lesotho calls on partners, both local and international, to support this effort through technical assistance, investment and capacity-building. This will require mobilising an additional US$ 1.97 billion in financing, including US$ 1.47 billion from the private sector needed for investments in grid expansion, mini-grids, clean cooking technologies and off-grid solutions.

Through this Compact, Lesotho reaffirms its commitment to advancing sustainable energy development, improving access to modern energy services and ensuring that no one is left behind on the journey to a cleaner, more resilient, and inclusive energy future.

Abbreviations

DoE	Department of Energy
DRE	Distributed Renewable Energy
EC	Energy Commission
EDM	Electricidade de Moçambique
EIFU	Energy Investment Facilitation Unit
EIMS	Energy Information Management System
EMP	Electrification Master Plan
ESMAP	Energy Sector Assistance Management Program
EU	European Union
GDP	Gross Domestic Product
GEF	Global Environment Facility
GoL	Government of Lesotho
HMKLIII JET Fund	His Majesty King Letsie III Just Energy Transition Fund
HECS	Household Energy Consumption Survey
HV	High-Voltage
IDA	International Development Association
IPP	Independent Power Producer
IPPF	Independent Power Producer Framework
IPTP	Independent Power Transmission Project
IRP	Integrated Resource Plan
JICA	Japan International Cooperation Agency
km	kilometers
kV	kilovoltage
kWh	Kilowatt hour
LCPDP	Least-cost Power Development Plan
LDS	Lesotho Demographic Survey
LEC	Lesotho Electricity Company
LEGCo	Lesotho Electricity Generation Company

LEWA	Lesotho Electricity and Water Authority
LHDA	Lesotho Highlands Development Authority
LHWP	Lesotho Highland Water Project
LREEAP	Lesotho Renewable Energy and Energy Access Project
LV	Low-Voltage
MoE	Ministry of Energy
MV	Medium-Voltage
MVA	Megavolt Ampere
MW	Megawatt
MWh	Megawatt hour
MWp	Megawatt peak
NEC	National Energy Compact
NEF	National Energy Fund
NES	National Electrification Strategy
OGS	Off-Grid Solution
PF	Petroleum Fund
PIP	Performance Improvement Plan
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PV	Photovoltaic
RBF	Results Based Financing
REA	Rural Electrification Agency
REU	Rural Electrification Unit
SADC	Southern African Development Community
SAPP	Southern African Power Pool
SDG	Sustainable Development Goal
SEforALL	Sustainable Energy for All
SREP	Scaling-Up Renewable Energy Program
UNDP	United Nations Development Programme

USD	United States Dollar
WB	World Bank

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Declaration of Commitment

Cognisant of the fact that today only 53% of the population in Lesotho has access to electricity, the Government of Lesotho commits itself to ensuring universal access to reliable, affordable, sustainable, inclusive, and clean energy by 2030. To this end, the Government commits to undertake the following:

Increase access by expanding electricity connectivity through;

Raising the national electricity connectivity rate from the current 53% to 100% by 2030 through both grid extension and off-grid solutions. However, this target can only be met through speed and scaled up investments that will increase the current annual electrification developments from 15,000 (grid) and significantly expand off-grid efforts beyond the 840 mini-grid connections implemented since 2021, in order to reach a combined target of 45,300 new connections per year;

- With an increase to 18,900 off-grid connections and 26,400 grid connections annually, the national electrification rate could reach 100% by 2030. Private Sector Investments are expected to play a big role in grid extensions, mini-grids, as well as leapfrogging the adoption of smart solar home systems, in particular the Pay-As-You-Go (PAYGO) (including Energy as a Service Model which is proving to be successful for affordability in rural areas).

The Government also commits to promoting the productive use of energy (PUE) to stimulate income-generating activities, support rural development and improve livelihoods. This includes enabling micro-enterprises, agro-processing, cold storage, irrigation, and digital services powered by clean energy."

Expand the share of renewable energy use in the country.

- With the exception of 400KW diesel generated power at Semonkong, Lesotho has been strictly promoting power generation from clean sources. Under the Renewable Lesotho initiative, promotion of e-mobility is underway and introduction of drones for transporting vaccines to rural areas thereby replacing conventional fuel in transportation.
- Encourage clean sources for power generation in off-grid solutions i.e. solar and/or micro-hydro sources.
- Incentivize the private sector participation to unlock more resources partly by developing frameworks to enable the issuance of green bonds, including setting up impact measurement standards and reporting mechanisms that ensure transparency and accountability in fund utilization.

Accelerate access to clean cooking

Increasing clean cooking and heating from 45.2% in 2024 to 75% by 2030, significantly improving the lives of women and girls by promoting alternative fuels and clean cooking technologies. This can be achieved through country wide innovation challenges and business acceleration support to promote home-grown innovations.

In the context of this Compact, clean cooking is defined based on the Multi-Tier Framework (MTF) standards as applied in Lesotho, and refers to cooking solutions that meet Tier 2 and above for efficiency, safety, and emissions. These include improved biomass stoves, Liquefied Petroleum Gas (LPG), e-cooking (electric stoves and appliances), and biogas systems. Ethanol is not currently considered due to limited availability and uptake.

Create investment friendly environment through establishment of transparent and non-restrictive legal and regulatory frameworks for crowding-in private-sector participation in the energy sector in both generation and distribution initiatives.

The Mission 300 initiative and the Compact thereof, aligns with global energy and climate objectives by focusing on renewable energy solutions to reduce dependence on environmentally damaging fuels such as kerosene and diesel and over dependence on traditional biomass fuels which have detrimental effects on the human health in our rural communities.

GoL recognizes that this initiative indeed embodies the ethos of sustainability while addressing our country's urgent energy needs. It does not only assist the country in attaining the Sustainable Development Goal (SDG) 7 Universal access to electricity by 2030, but goes a long way in addressing Africa Agenda 2063. GoL further recognises and appreciate that;

- Achieving universal energy access is not just a goal; it is a human right essential for eradicating poverty and fostering sustainable development.
- Electrification is more than an infrastructure goal - it is a moral imperative. It represents hope for a mother who dreams of her child studying under electric light, for a farmer seeking better irrigation methods, and for a doctor requiring reliable power to save lives and that every connection we establish is a step towards reducing inequality and igniting prosperity. With this

background in mind, and building on the natural resource endowments the country has, we commit to have our National Energy Compact encompassing and addressing all the existing impediments to ensure a timely achievement of our targets as outlined in the Compact. More specifically, Lesotho intends to undertake the following;

PILLAR I
REHABILITATE AND EXPAND ENERGY INFRASTRUCTURE AT COMPETITIVE COSTS

The Government of Lesotho through the support of the World Bank has just concluded a Least Cost Power Development Plan which recommends among other aspects the priority and least-cost generation and energy storage projects for permutations of scenarios; national and trade optimization for low, medium and high electrification. This feeds into the existing Electrification Master Plan (EMP) 2018-2038 and also aligned to the National Electrification Strategy (NES) study report which is being finalised. It also provides for the demand growth forecast as well as Monitoring and Implementation. Furthermore, an upcoming Integrated Resource Plan (IRP), to be developed with the support of GET.transform, will build on these foundations by providing a comprehensive framework that responds to evolving national priorities, integrates least-cost planning with broader energy sector objectives and ensures long-term security of supply. The priority cost effective projects are annexed herewith.

PILLAR II
LEVERAGE BENEFITS OF INCREASED REGIONAL INTEGRATION

Power trade through Southern African Power Pool (SAPP) and/or bilaterally with South Africa and any other country on the SAPP interconnector is crucial in meeting the country's objective of becoming a net exporter of clean energy leveraging the abundant resource endowments the country is blessed with. To this effect, the signing of the necessary partnership protocols with South Africa, construction of the necessary cross-border transmission lines and strengthening Lesotho Electricity Company (LEC) for readiness in facilitating cross border power trade are the imperative actions the Government is embarking on. The necessary regulatory frameworks and instruments, for example the private sector involvement in network constructions and operations and power wheeling frameworks, etc, shall be established where the private sector shall be involved in direct power exports.

PILLAR III
EMBRACE DISTRIBUTED RENEWABLE ENERGY (DRE) AND CLEAN COOKING SOLUTIONS AS CRITICAL ELEMENTS OF THE ACCESS AGENDA

- Cognisant of the need by the rural communities including the last mile population, the Government has been encouraging the private players in this subsector. Currently 11 solar powered mini-grids are being developed by the (9) private sector and (2) community based mini-grids while under the World Bank (WB) support another 10 mini-grids are under procurement for private sector involvement. There are other small entrepreneurs that are involved in solar home systems' initiatives in the country especially where grid networks are hard to execute. A subsidy scheme, including fiscal incentives, is under consideration to ensure the lifeline population also benefits.
- Lesotho is one of the vulnerable countries affected by climate change. It's the only country on the continent that experiences severe winter and very hot summer periods. To this effect, beyond cooking, heating is also essential for people and animals to survive. In responding to this challenge, the Government is strongly promoting private-sector initiatives that support clean cooking and heating solutions. The national target is for 75% of the population in the country to have adopted clean cooking and heating technologies by 2030.
- To further support the 75% target, the Government has prioritised the development of LPG storage expansion, aligned with clean cooking goals and energy access targets under the Sustainable Energy for All (SEforALL) and SDG 7 agenda.
- Institutional reforms are also under way. The Energy Bill currently in the enactment process, provides for the transformation of the Rural Electrification Unit (REU) into Rural Energy Agency (REA) which will have an expanded mandate that includes not only accelerating electrification, but also actively promoting clean cooking and heating solutions.
- To finance these efforts, a NEF is envisioned to consolidate various existing funding streams. The NEF will focus on providing concessional loans and grants to small entrepreneurs with interest in engaging in rural electrification as well as clean cooking and heating initiatives.

PILLAR IV
INCENTIVIZE PRIVATE-SECTOR PARTICIPATION TO UNLOCK ADDITIONAL RESOURCES AND DEVELOP LOCAL GENERATION AND TRANSMISSION CAPACITY

An Independent Power Producers Framework (IPPF) has been developed to provide guidelines for investment processes and procedures. The tool has been a good guide to prospective investors that have been initially struggling to know how to navigate through the Government bureaucracies. The framework is currently under review with the support of GET.transform and will be enhanced to include the development of necessary templates aimed at reducing negotiation time, lowering legal costs, and minimising ambiguity, thereby improving project bankability.

- Furthermore, the Energy Bill provides for establishing an "Energy Investment Facilitation Unit (EIFU)". This unit, which shall be a one stop centre for investments in energy, shall be responsible for holding the hands of prospective investors guiding them through all the needed processes. This will help in cutting down the time that is otherwise spent in tedious and misaligned processes in different offices.
- Identifying and solving bottlenecks to unlocking private investment in power generation, transmission, and distribution through exploration of innovative financing sources including developing and promoting green bond markets and leveraging partnerships with multilateral institutions and philanthropic organizations to establish blended finance mechanisms that reduce risk and attract large-scale investments.
- Consideration of establishing an independent market operator to facilitate both domestic and cross border power trade.
- LEWA is currently reviewing the mini-grids regulations (2021) to reflect the current regulatory guidelines all meant to make it easier for private sector participation in this subsector.
- Guarantees from different institutions i.e The WB PRG, AfDB ADF-PRG, etc.
- AfDB supported "African Legal Support Facility"

PILLAR V
ADVANCE FINANCIALLY VIABLE UTILITIES THAT ENSURE ENERGY SECURITY AND PROVIDE RELIABLE AND AFFORDABLE SERVICES

The Government is well aware of the challenges the Utility is facing in its current performance endeavours. Cognisant of this challenging situation, the utility with assistance from the Government is undertaking several measures to overcome these challenges. Some of the measures considered in the near term include the following;

- Tariff adjustment to reflect cost recovery, with consideration of lifeline tariffs proposed for affordability by the low-income population.
- Attending to regular/predictive power systems is another obligatory undertaking to be observed.
- Attending to and taking serious steps to avoiding administrative/commercial losses that include meter tampering and other power theft mechanisms.
- Utility internal management that ensures efficiency and effectiveness. This may involve but not limited to having clean accounting system ensuring regular audited accounts and reporting to the regulatory authority as required by the law.
- Ensuring maximum collection of electricity bills. This may involve installation of prepaid meters.
- Undertake a metering system audit.

In the medium- and -long term perspective, the utility needs to ensure the following measures are undertaken;

- Maintenance and replacement (where possible) of the aging network infrastructure which often results into unreliable services to customers and loss of revenues.
- Minimising technical losses to the extent possible to ensure stable and smooth service delivery.
- Continuous staff capacity enhancement to create internal expert skills in maintaining the power systems as well as meeting the ever-emerging technological advancement. Building the internal skills base needed for tariff setting is also essential especially in Power Purchase Agreement (PPA) negotiations with Independent Power Producers (IPP) as well as tariff adjustments when negotiating with the regulatory authority.
- Develop the shareholders compact as a mechanism to promote good corporate governance.
- Establish a market operator.

These initiatives are also pegged on to the utility **Performance Improvement Plan (PIP)** study which has just been completed under World Bank support and the utility to ensure effective implementation of the plan.

INCLUSIVE GROWTH AND EFFECTIVE SERVICE DELIVERY: JOBS, DIGITAL TRANSFORMATION, AND GENDER EQUALITY

Job Creation through the Compact Action Plan

The National Energy Compact will drive job creation in Lesotho by leveraging two strategic pillars. First, by promoting PUE and innovative technologies, the Compact will enable households, businesses, and communities to utilise improved energy access for income-generating activities—creating new opportunities in both the formal and informal sectors. This includes supporting micro-enterprises, agro-processing, digital services, and other productive ventures powered by clean energy.

Second, the Compact will initiate a comprehensive energy sector skills gap audit to identify critical skills' shortages and inform the development of targeted training and recruitment programs meant to enhance priority skills for growth. This will facilitate the creation of new job positions within government, utilities, and key energy entities, ensuring that Lesotho's workforce is equipped to support the sector's growth and transformation.

Together, these efforts will foster inclusive economic development, enhance livelihoods, and ensure that the benefits of expanded energy access translate into tangible employment opportunities for Basotho.

Digital transformation as an Enabler of the Successful Compact Implementation

The Compact recognizes digital technologies as powerful enablers to achieve its targets on energy access, reliability, and financial sustainability. To support this, the Government of Lesotho will establish integrated digital platforms for data collection, accessible to relevant energy sector institutions, to support coordinated planning, implementation, and reporting for both on-grid and off-grid electrification.

Additionally, a suite of digital solutions—identified in the Lesotho Electricity Company's Performance Improvement Plan (PIP)—will be deployed to modernize utility operations. These include Incident Recording Management System (IRMS) with Workforce Management (WFM) module, Geographic Information System (GIS), Advanced Metering Infrastructure (AMI) supported by Meter Data Management System (MDMS), and the consolidation of ERP–SAP and other ICT platforms. These tools will make outage response faster and smoother, strengthen revenue protection through accurate and tamper-proof metering, enable customers to access real-time information on their energy use, and provide managers with digital dashboards for service quality. By embedding these PIP-recommended systems into core processes, the Compact ensures that digital transformation serves as a means to an end: accelerating energy access with reliable energy service quality by improving operational and financial efficiency.

Addressing Gender Gaps in Lesotho's Energy Sector

According to the 2024 Global Gender Gap Index, Lesotho has closed approximately 70% of its overall gender gaps. However, gaps within the energy sector continue to remain wide. Energy access remains a significant challenge, particularly in rural areas where only around 28% of households are connected to electricity and most rely on traditional biomass for cooking. This disproportionately affects women who are mainly responsible for household energy tasks such as firewood collection and cooking. As a result, they face health risks from smoke exposure and lose valuable time that could otherwise be devoted to education or income-generating activities.

In the formal energy sector, women are underrepresented in technical, leadership, and decision-making roles, and often lack access to finance and training needed to engage in energy-related entrepreneurship. Although private energy companies show a higher representation of women in senior management at 44%, many of these positions are within family-run businesses, and women often occupy supportive roles rather than technical ones. This underrepresentation is influenced by broader societal factors, including a gender disparity in STEM education, where women make up only 23% of graduates in these fields. Also, women have limited entrepreneurial opportunities within the energy sector. While women often face limited access to productive resources and energy-related income-generating activities, the Compact seeks to address these gaps by promoting female entrepreneurship and employment through targeted community awareness campaigns and support for productive uses of electricity. As the first step, the Compact targets to increase the percentage of women employed in the workforce, in leadership, and in technical positions in the energy sector by 30%. The compact shall also support the strengthening of the Women in Energy unit anticipated to be established once the Energy Bill is enacted by Parliament.

Funding Needs from the Public and Private Sectors investments by 2030 (US$ million)

	Generation	Transmission	Distribution	Rehab	Last-Mile	Clean Cooking[1]	Capacity Building[2]	Total	Anticipated Source of Funds	Funds Available (US$ Mill)	
Public	86.0	207.8 (This figure includes Regional Infrastructure)	9.4	36.5	146.0	14.0	-	499.70	Government Resources	To be pledged[4]	
									Development Partners	World bank	52.9
										AfDB	10.6
										JICA	8.9
										Exim bank of china	67.4
										EU/GIZ (GET.Pro)	18.9
										Other Donors	
Private	1,343.0	23.0	6.0	36.5	53.0	9.0		1,470.5	24 MW SPV – Neo 1	32.3	
									50 MW SPV – Rama Phase II	67.4	
									40 MW SPV - Beijing	53.9	
									1.1 MW - Katse Hydro	8.9	
									60 MW – Wind - Hirundo	89.9	

[1] Figures are based on the 2017 HECS and subject to change after updating the nation-wide clean cooking survey report
[2] The Capacity Building component shall be costed after carrying out the skills audit in the sector
[3] The 600 MWh BESS is based on the 2 hours peak from a generation of 300 MW (Grid charged)
[4] Figures for Government Annual Contributions to be pledged

									50 MW SPV - Rexivista 89.0
									40 MW Floating SPV 50.0
									BESS 47.5
									HMKIII JET fund
Total	1,429	230.8	15.4	73	199.0	23.0	-	1,970.20	

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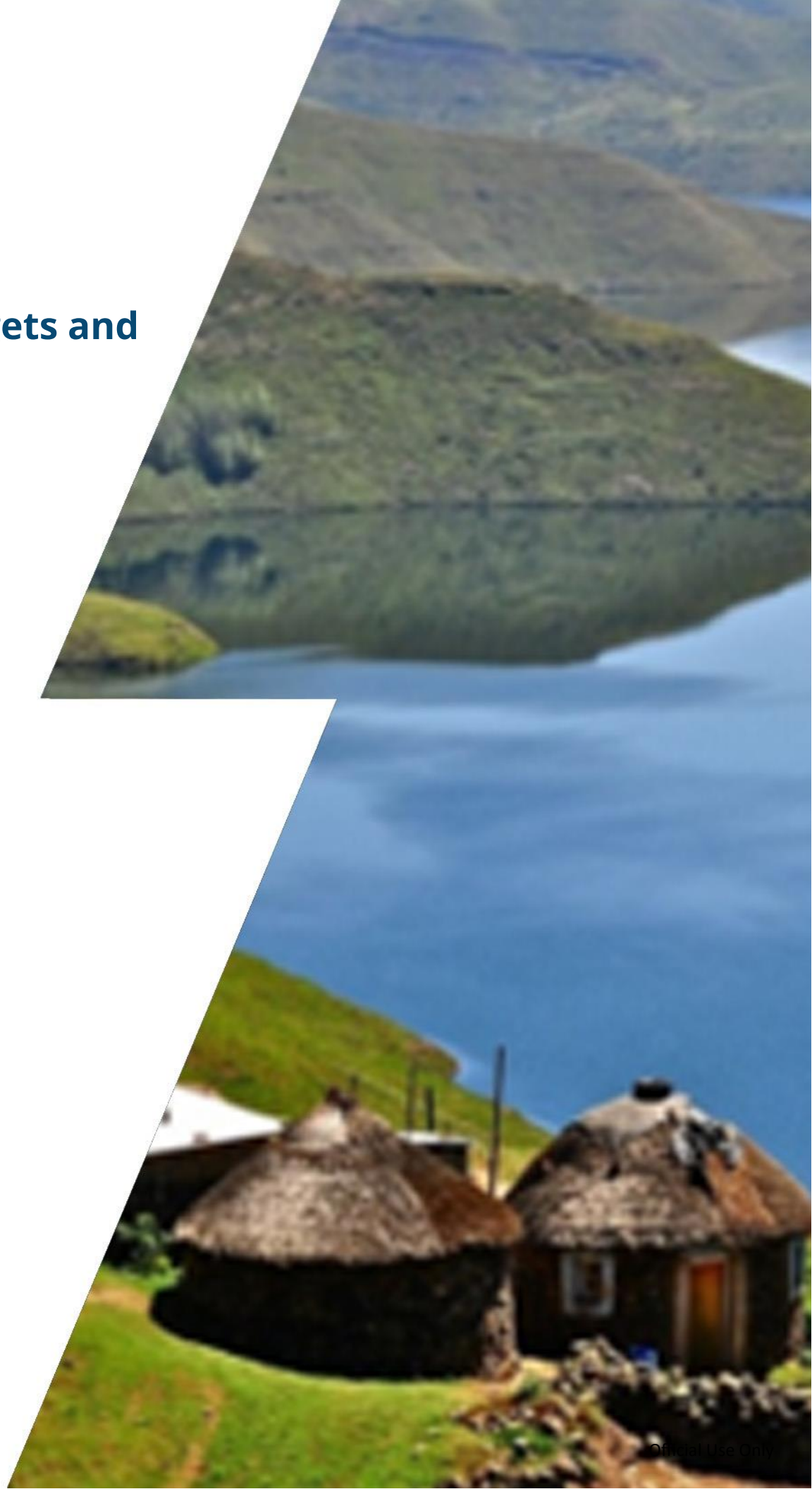
Compact Targets and Action Plan



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This Energy Compact presents the Government of Lesotho's strategic commitment to accelerating universal energy access, enhancing renewable energy adoption and strengthening private sector participation in the energy sector.

Indicator	Baseline: Annual Growth Rate Between 2017 and 2022	Targeted Growth Rate Between 2023 and 2030
Increased Access to Electricity	15,000 increase p.a.	• 45,300 connections increase p.a (To achieve 100% connectivity by 2030) • 18,900 households connections through off-grid per annum (688 mini-grid and 18,212 off-grid solar: solar lantern, solar DIY Kit, AC Solar Home System) • 26,400 households connections through grid per annum
Increased Access to Clean Cooking	0.48% p.a. (Access to clean cooking was 45.2% in 2022)	75% of households using clean cooking

Note: Lesotho Energy Policy 2015-2025 defines

Access: End-users or customers are physically connected to the network.

Indicator	Current Share Renewable Energy in Fuel Mix	Target by 2030
Increase Share of Renewable Energy in the power generation mix	99.6% (The total current installed capacity of 102 MW is all renewable)	100% • New capacity will be generated from; – 50 MW solar (Ramarothole) – 24 MW solar PV (Ramarothole) – 1.1 MW hydro (Katse) – 40 MW Solar (Beijing) – 600 MWh BESS – 60 MW wind (Hirundo) – 50 MW Solar (Rexivista) – 60 MW Floating Solar

Action Plan

Through clear policy actions, enhanced financial mechanisms and stakeholder collaboration, the Government of Lesotho (GoL) is on track to ensuring that all Basotho have access to clean, reliable and affordable energy by 2030, the most critical of which are included in the action plan below.

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
I: Rehabilitate and Expand Infrastructure at Competitive Costs	Least-Cost Power Development Plan (LCPDP) Implemented	Draft LCPDP	• Approve and adopt comprehensive Least-Cost Power Development Plan (LCPDP) to guide long-term investment in the electricity sector; it will identify and prioritise the most cost-effective generation projects required to meet the country's electricity demand over a 20 year horizon	• October 2025	• MoE/DoE
			• Develop and adopt the Integrated Resource Plan (IRP) to provide a more holistic framework that integrates long-term generation and transmission planning with emerging energy trends and cross-sectoral priorities	• March 2026	• MoE/DoE
			• Periodically (every five years) update LCPDP/IRP, which should include public consultation on the draft plan intended for approval and publishing after approval	• December 2030	• MoE/DoE
	Competitive and transparent procurement policy and framework in place for private-sector investment in power projects	• Energy Policy 2015-2025 • Draft IPP Framework	• Review the National Energy Policy 2015-2025 and develop updated policy 2026 - 2036 to guide the implementation of all public and private energy initiatives	• December 2025	• DoE
			• Review, adopt and launch the IPP/IPT Framework to facilitate private-sector-led power project	• November 2025	• DoE /MoE
			• Develop tools (templates) providing guidelines for IPP processes and subsequent procurement processes	• December 2025	• DoE /LEC/ LEWA
			• Build Capacity through Technical Assistance in financial transactions leading to effective and fast tracked PPA negotiations and PPP arrangements on key projects.	• December 2025	• DoE

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
II: Regional Integration and Power Trade	Enhance readiness for regional interconnection and power trade	132 kV transmission line from Tweespruit (SA) to Mabote (Lesotho) 88 kV from Clarence (SA) to Khukhune (Lesotho) 22 kV from Matatiele (SA) to Qacha's Nek (Lesotho)	• Construction of a new interconnector line from South Africa (merapi substation) to ha Mabote Lesotho build and designed at 400 kV operated at 275 kV to begin with. • Finalisation and adoption of Bi-national cooperation (BNC) between Lesotho and South Africa • Signing of MOU on energy trade between Lesotho and South Africa for exports	• December 2028 • December 2025 • December 2025	• Lesotho / South Africa • MoE (Lesotho) /MoE(SA) • LEC/ESKOM
			• Align national regulations with SAPP trading frameworks to facilitate smoother cross-border transactions	• March 2026	• LEWA/LEC/SAPP
			• Develop transmission pricing to facilitate power trade and harmonized tariff structure for energy imports and exports, assuming transparent and fair pricing (LEWA include recommendations from transmission pricing and timelines and wheeling fees)	• March 2026	• LEWA/LEC
			• Review and adopt grid codes to align with SAPP regional grid codes • Establish power trading office within LEC and provide necessary training (e.g more staff, training of staff) and develop adequate capacity in undertaking power trading transactions (PPA negotiations, etc)	• December 2026 • December 2026	• LEWA/LEC • LEC/LEWA
III: Last-Mile Access	100% of the households within the last mile location have access to electricity from	• 53% electrification rate through grid extension and off grid extension	• Adopt the National Electrification Strategy to facilitate renewable energy deployment and applications beyond electricity through;	• October 2025	• MoE/LEC/REU

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
	different supply sources (grid extension, mini-grids network extension, and SHS)		– Grid extension target 27,200 connections annually through – Installation of 200 distribution transformers across the 10 districts in the country – Extension of low voltage distribution network to reach around 15,000 households located in the vicinity of these transformers – Construction of the distribution network with about 550 kilometres of low voltage distribution lines – Cross border electrification where candidate villages exist – Electrification of 18,900 refers to NES targets, including 688 households connected through mini-grids and 18,212 through Off-Grid Solar – installation of solar street lights in Semonkong (2.1km), Ha Sekake (2.2km), Roma (5.1km), Mapholaneng (1.8km)		
			• Scale up the RBF mechanism (currently supporting SHS, improved cookstoves, mini-grid connections, Productive Use of Energy) to de-risk investment and encourage private sector participation	• March 2026	
			• Develop additional RBF Programs to strengthen monitoring frameworks to track implementation progress and expand the scope of RBF by introducing a Clean Cooking Innovation and sustainable biomass fuels (through developing and adopt financial incentives for local producers of pellets and briquettes) targeting the 5 remote and rural districts (Thaba-Tseka, Mokhotlong, Quthing, Mohale's Hoek and Qacha's Nek). This should include capacity building in business development to promote the deployment and scaling of locally-developed clean cooking solutions	• March 2026	• DoE/UNDP • DoE/Ministry of Public Service
			• Project supervision and management		

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
			– Design , develop and implement a Monitoring and Evaluation (M&E) Framework and Integrate and adopt digitalisation tools to track progress in electricity and clean cooking access as well as tracking off-grid electrification access through – Provide capacity building – Establishing a unit responsible for tracking progress	• November 2025	• UNDP/MoE
			• Develop an integrated digital platforms for data collection for energy institutions		
			• Conduct a comprehensive survey to assess connectivity Tier 1 up to Tier 5, clean cooking, heating and update it every 5 year to assess electrification access	• November 2025 • June 2026	• MoE/DoE • MoE/DoE/BoS
	National clean cooking strategy in place	No	• Develop and adopt a National Clean Cooking Strategy and Action Plan 2026- 2030 with a focus on women and children and with clear targets and timelines to leapfrog the adoption of clean cooking from 2026	• November 2025	• DoE/REU
			• Define and adopt Technical, Quality and Performance standards for clean cooking technologies and appliances	• January 2026	• DoE

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
					• DoE
				• January 2026 - March 2030	
	Productive Use of Energy Program developed and implemented	Not yet established	• Conduct a national PUE market assessment	• November 2025	• MoE
			• Develop PUE implementation strategy (2026-2030) that explicitly links energy access to rural entrepreneurship, local industry growth, and job creation across value chains	• March 2026	• MoE
				• June 2026	• MoE
			• Provide financing, technical support and business incubation for micro-enterprises using energy	• January 2026	• MoE/UNDP
			• Align RBF and subsidy mechanisms to support PUE technologies and services		
	Liquefied Petroleum Gas (LPG) Regulations in place	No	• Finalise, adopt and implement LPG Regulations, including safety standards, pricing, distribution licensing and consumer awareness, to support the scale-up of clean cooking solutions	• December 2025	• MoE/PF
	Enhance investment in clean cooking	45.2% access to clean cooking	• Strengthen involvement of public and private sector to scale up clean cooking technologies	• March 2026	• DoE/UNDP
			• Strengthen partnerships with development finance institutions and climate funds	• March 2027	• DoE/UNDP
	Technical, policy, and regulatory framework to attract and support investments across the energy-sector value chain	2021 mini grid regulations	• Review and update Mini-Grid Power Generation, Distribution and Supply Regulations 2021 to – Facilitate private sector investment. – Provide a framework for the licensing, regulation and development of mini-grids	• December 2025	• DoE/LEWA

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
			– Include transparent and predictable tariff-setting and approval processes, ensuring cost-reflective tariffs while safeguarding affordability for low-income consumers, in alignment with national regulatory standards		
			• Develop a net-metering regulation – Review and/or develop tariff setting framework to addresses weaknesses and align with international best practices	• March 2026	• LEC/LEWA
IV: Private-Sector Participation	Investment environment is conducive including having in place outlined investment processes for transparent legal and regulatory frameworks for private-sector-led investments	Independent Power Producers Framework	• Enactment of the Energy bill to: – Establish Energy Investment Facilitation Unit (EIFU) to reduce bureaucracy in processing the licensing, and other necessary instruments including the PPA, Implementation and Connection agreements. – Transformation of REU to REA – Transformation DoE to EC – Establishment of the Energy Fund – Establishment of Women in Energy Unit	• March 2026	• DoE/MoE
			• Review and adopt standardized PPA to facilitate investment security	• August 2025	• LEWA/LEC
			• Facilitate for ease access of Guarantees from different institutions i.e The WB PRG, AfDB ADF-PRG, etc, to assist in derisking anticipated investments	• June 2026 • March 2026	• MoE
			• Conduct a study to explore engaging private sector in transmission lines	• December 2025	• LEWA/LEC • LEC/LEWA
			• Open up for IPPs/IPTs to trade directly with anchor off takers	• December 2025	• LEC

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
			• Establish an independent market operator •		•
	Financial support to private- sector DRE and clean cooking operators to ensure affordability and viability	• Renewable Lesotho/UNDP RBF scheme • WB supported LREEAP project subsidizing Mini-grids power connections(under preparation)	• Establish a National Energy Fund to support infrastructure investment with clear governance and disbursement mechanisms • Finalise the design of the subsidy facility and launch it to provide capital subsidy for development of mini-grids	• March 2026 • September 2025	• DOE/REU • DOE/MOE/MOFDP
	Fiscal Incentive Framework/Policy developed; tax exemption provisions published and implemented	No Fiscal Incentive Framework/Policy	• Develop and adopt a coordinated fiscal incentive framework/policy for renewable energy investments	March 2026	MoE
V: Financially Viable and Operationally Competent Utilities	Healthy financial cash flow maintained, Efficient and reliable service to clients sustainably delivered.	Utility PIP Utility Turn Around Strategy	• Audited annual financial statements published as required by the law • Internal administration and operations transformed as per the PIP recommendations and the Turn Around Strategy • Introduction of digital tools such as Incident Recording Management System (IRMS) with Workforce Management System (WFM) module, Geographic Information System (GIS), Advanced Metering Infrastructure (AMI) including Meter Data Management System (MDMS) and Meter Control Centre (MCC), and the consolidation of ERP–SAP	Annual (starting December 2025) • November 2025 • November 2028	• LEC • LEWA/LEC • LEC

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
			and other ICT platforms. These digital systems will modernize customer service, outage management, and revenue protection, while improving data-driven decision making, accountability, and transparency across LEC's operations		
			• Tariff adjusted following the Cost of Service Study, developing and adopting Automatic multi-Annual Tariff	• December 2025	• LEC/LEWA
			• Utility Performance monitored	• December 2025	MoE/DoE
	The Utility achieving 100 percent operational cost recovery	PIP	• Undertake a cost-of-service study to determine cost-recovery rate for provision of electricity services, and establish and implement a methodology for adjusting electricity tariffs to the identified cost-recovery rates with periodic adjustments, while protecting poor and vulnerable groups	• March 2026	• LEC/LEWA
			• Develop and adopt Automatic multi-Annual Tariff Review Mechanism to ensure cost-reflective tariffs while ensuring affordability for low-income consumers through targeted subsidies	• Bi-Annually from May 2026	• LEC/LEWA
			• Implement lifeline tariff framework as part of tariff adjustment		
			• Enhance transmission and distribution efficiency to reduce technical losses as part of PIP implementation	• May 2026	• LEC/LEWA • LEC

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
			• Multi-Annual tariff adjustment is conducted and published as per the guidelines	• September 2025	• LEWA
			• Develop and provide capacity building on asset management of electricity infrastructure and develop and implement asset management guidelines	• May 2026	• LEWA/DOE/LEC
				• March 2026	
	Regular M&E within Utility-specific plan to improve service quality approved by regulator	PIP	Set up a team within LEC reporting to management or board for monitoring and evaluation of the implementation of the turn around including PIP recommendations against agreed key performance indicators. The team will provide quarterly semi and annual reports	• October 2025	• LEC/DOE
Other key Areas					
1. Sector Governance	Energy Sector reformed	Energy Policy (2015 – 2025)	• Review the National Energy Policy 2015-2025 and develop updated policy 2026 - 2036 to guide the implementation of all public and private energy initiatives	• December 2025	• MoE/DoE
			• Developing National Electrification Strategy	• October 2025	• MoE
		National Energy Bill	• Enacting the National Energy Bill	• December 2025	• MoE/DoE

Pillar	Intended Outcomes	Baseline Data (2024)	Detailed Actions Needed to Achieve Goal	Timeline	Responsible Entity
		LEC Reform	• Conducting a diagnostic study and assessment of possible LEC management models	• December 2025	• MoE/MoF&DP
2. Capacity Building	MoE and all affiliate Institutions sufficiently staffed	Only about 60% of the labor force in the Energy sector is skilled	• Conduct capacity/skills needs audit to design targeted training and recruitment programs, creating new job positions within government, utilities, and key energy entities with an aim to increase the percentage of women employed in the workforce, in leadership, and in technical positions in the energy sector by 30% (Specifically, skills gaps within the anticipated Energy Directorate, Rural Energy Agency, LEC and LEWA will be identified and enhanced through capacity building as needed)	• December 2025	• MoE/DoE/LEWA/LEC/REU
			• Recruit experts (local/foreign) to fill the gaps based on the capacity/skills audit	• December 2026	• MoE/DoE (to be upgraded into Energy Commission)/LEWA/LEC/REU (to be upgraded into REA)
			• Conduct training programs (In/Outside the country)	• Dec 2028	• MoE/DoE

To ensure timely and effective implementation of the Compact action plan, the Government will establish a Compact Delivery and Monitoring Unit (CDMU) as a dedicated secretariat, staffed with technical experts (including M&E, legal, and administrative personnel as appropriate). The CDMU will track implementation progress and report to the Steering Committee (SC) and the Compact Technical Working Group (TWG). The SC will be chaired by the Principal Secretary of Energy and the Principal Secretary of Finance and Development Planning and comprise Director of Energy, Managing Director of LEC, CEO of LEWA, and the Compact Development Coordinator. The CDMU will also facilitate coordination with the TWG, which brings together representatives from the Department of Energy, Lesotho Energy and Water Regulatory Authority, Lesotho Electricity Company, the Ministry of Finance and Development Planning, and the Compact Development Coordinator.

The TWG and SC will provide quarterly progress reports to both the Minister of Energy and the Minister of Finance and Development Planning. In turn, the Ministers will submit bi-annual reports to the Cabinet. Additionally, the TWG and SC will present quarterly progress updates at the Energy Sector Coordination Forum—a public sector-wide platform attended by all energy sector stakeholders, including private sector companies, government entities, development partners, academia, financing entities, and others.

The CDMU will proactively support inter-agency coordination and ensure rapid response to emerging challenges. Its work will be supported by the Government's budget and, as appropriate, by development partners for implementation and monitoring activities.

3

Country and Sector Overview

Lesotho is a small mountainous country surrounded entirely by South Africa. Rich in natural resources, particularly water and diamond, it is home to several major rivers (Senqu, Senqunyane, Mohokare, Makhaleng, Malibamatso) and dams (Katse, Muela, Mohale, and Polihali which is currently under construction). These assets present untapped opportunities for renewable energy, especially hydro and wind power, the latter particularly viable in the highland regions. The GoL conducted a feasibility study which revealed hydropower generation potential along the Senqu river and Oxbow.

The population of Lesotho is projected at 2.1 million in 2025 and 2.2 million by 2030. The population is predominantly rural, relying on subsistence farming, livestock rearing and wool and mohair sales for livelihoods. The country's GDP currently stands at $2.3 billion with services sector, manufacturing and agriculture as leading contributors.

Energy plays a pivotal role in driving socio-economic development of Lesotho. It is regarded as a growth enabler for participation of other sectors e.g health, education and industry. **The country's installed power generation capacity is approximately 104.7 MW, with 72 MW from the Muela hydropower plant, 30 MW from the Ramarothole solar plant, 0.3 Moshoeshoe 1 International Airport: Solar PV plant, 0.2 MW Mants'onyane Mini Hydropower Plant, and 0.4 MW Semonkong Diesel Generation Plant.** However, peak electricity demand stands at around 209 MW requiring imports from South Africa and Mozambique to bridge the deficit, a practice that places financial strain on the LEC, which imports nearly 50% of electricity consumed.

The energy sector institutional arrangement encompasses the MoE who is responsible for energy policy development and planning while the LEC oversees electricity transmission, distribution, supply and procurement. The sector is regulated by LEWA, which is tasked with the technical and economic regulation of the electricity, water and sanitation subsectors. To enhance rural electrification, the GoL established the REU, focusing on rural off-grid electrification. The Lesotho Electricity Generation Company (LEGCO) is responsible for operation and maintenance of Ramarothole (90 MW) Solar Power Plant and is envisioned to play a power generation coordination role and providing support to the IPPs rather than of competing with them. The Lesotho Highlands Development Authority (LHDA) operates and maintains the 'Muela hydropower plant which provides the bulk of domestically generated electricity. Lastly, the Petroleum Fund (PF) which is responsible for regulating the pricing of petroleum products, collecting the petroleum levy and funding petroleum related activities.

The current electrification rate in Lesotho is estimated at 53% with major disparities between urban (71.3%) and rural (11.4%) areas. Rural households (62%) still rely heavily on biomass for cooking, space heating and water heating posing health risks and exacerbating deforestation, climate change and exposing the country to many social and economic challenges. These burdens fall disproportionately on women and girls, limiting their time for leisure, education and economic activities.

To address the electrification gap, the GoL developed an EMP in 2018, setting a path toward universal access by 2038. However, implementation has been hampered by budget shortfalls, increased material costs (particularly during the COVID-19 pandemic), and the ambitious target of electrifying 15,000 households per year has fallen short, averaging only 4,000 households annually. In response, the GoL is now preparing the NES to accelerate electrification access and achieve universal access by 2030. The NES will prioritise investment mobilisation, define roles for public and private stakeholders and outline a mix of grid, mini-grid and stand-alone off-grid approaches. It also identifies the need for:

- Clear subsidy framework to support capital expenditure (CAPEX)
- Support for end-user affordability
- Enhanced infrastructure in hard-to-reach areas
- Productive uses of energy to increase local demand

Through the technical support of European Union (EU) under the Support to Reform in the Energy Sector in Lesotho initiative, the GoL developed an Energy Bill, which lays the foundation for institutional transformation and regulatory modernisation. The draft Energy Bill currently awaits Cabinet approval. This bill establish a National Energy Fund to subsidise infrastructure and access costs, transform the REU into REA, with a mandate for nationwide rural energy services, elevate the MoE into an Energy Commission (EC) with a mandate to attract and coordinate private investments.

The ongoing reforms are instrumental in paving the way for accelerated and inclusive energy access. The Mission 300 initiative builds upon these reforms by committing to electrify communities through a combination of grid, mini-grid, and stand-alone off-grid solutions. By leveraging the enabling policy environment set out in the draft Energy Bill, strengthening institutional capacity, and mobilising both public and private investments, this Compact aims to fast-track the country's progress toward achieving universal access by 2030, in line with SDG7. This integrated approach not only addresses current access gaps but also ensures that energy becomes a catalyst for socio-economic transformation, particularly for rural and underserved populations.

4

Current Status, Opportunities and Challenges

PILLAR I
INFRASTRUCTURE EXPANSION AT COMPETITIVE COSTS

The power generation expansion in the country is anchored on the NES which focuses on accelerating electricity access (including on-grid and off-grid), ultimately leading to achieving the electricity access targets set by the Government of 100% access by 2030. The strategy further suggests an ambition target of having Lesotho becoming a net exporter of clean energy in the region by 2030. Whereas the Lesotho NES provides a roadmap for;

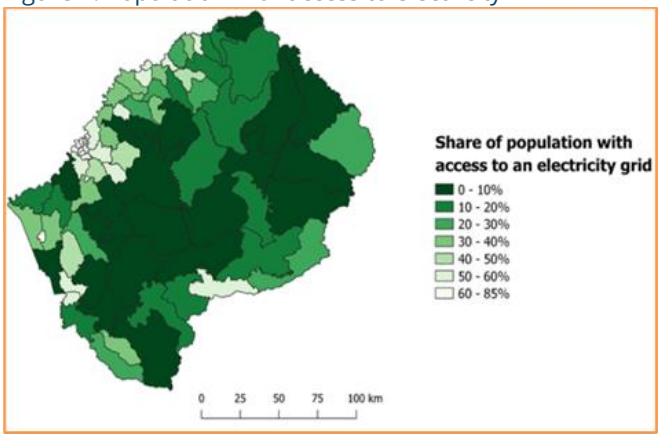
- Selecting the most appropriate level of service,
- Identifying the technology options that would allow electricity delivery at the lowest cost of service, and
- Selecting the most suitable and sustainable implementation model,

The Least Cost Power Development Plan (LCPDP) considers certain key parameters including the population growth, urbanization, rural electrification, and industrialization, all of which are demand growth driven, as well as the power export targets per the agreement between Lesotho and South Africa and other latent demand growth.

The power generation plan further evaluates and considers all available energy resources, investment requirements, and security of supply, enabling allocation of resources predictably and effectively for the energy future. The Government is ensuring that the considered energy mix meets the energy needs in a cost-effective, sustainable, and environmentally responsible manner.

Currently, around 53% of households have access to electricity, with most coverage concentrated in urban areas as shown in the Figure below

Figure 1: Population with access to electricity



Source: Mapping Subnational Poverty in Lesotho (The World Bank, 2021)

Electricity access is primarily grid-based, with ongoing efforts to extend the grid to rural communities. However, expanding access in rural areas is challenging due to rugged terrain, limited infrastructure, low economic activity, and widely dispersed households. As a result, rural areas, which comprise about 60% of Lesotho's households, continue to rely heavily on biomass for cooking and heating. While this is a challenge, it is also an opportunity to prospective private players in the sector.

As at the end of 2023/24 Financial Year, Lesotho had a total of 104.7 MW installed generation capacity comprised of the following:

- 30 MW - Ramarothole Solar PV Plant.
- 0.3 MW – Moshoeshoe 1 International Airport: Solar PV plant
- 72 MW – Muela Hydropower Plant
- 2 MW – Mants'onyane Mini Hydropower Plant, and
- 0.4 MW – Semonkong Diesel Generation Plant

This is a significant amount of intermittent renewable energy power input into the energy mix, but with the Lesotho power network interconnected to the South African strong network, no network instability is expected.

According to the Lesotho Maximum Demand Profile for the Period 2012/13-2023/24, the highest demand in the reporting period was 209.62 MW. This means that the maximum power that the utility (LEC) had to import to cover the deficit was around 104.92 MW or 50% of the peak demand.

These projects will help therefore increase the country's local electricity generation capacity, thus closing the electricity supply and demand gap while in the meantime, this deficit is met primarily through Power trade agreements with ESKOM (South Africa) and the EDM.

On the power transportation, the transmission and distribution infrastructure in the country is built by the Government while the operation and maintenance remain the responsibility of the utility. The transmission lines at 132 kV, 88 kV, and 66 kV have been built to transport power mainly from the central part of the country (Maseru capital city) to the northern parts where mines and dams are located. These lines are complemented by 33 kV and 11 kV lines that are used for distribution of power to the end users.

The Government has plans to expand the transmission and distribution networks in the country to enable evacuation of power for the planned new power generation. To this end, the Government is currently trying to source funds to conduct feasibility studies for construction of a 132 kV transmission line from Mofoka - Qacha' Nek which will be

used for evacuation of planted power plants in the western parts of the country.

Furthermore, funds are being sourced to undertake the feasibility for construction of a 275 kV interconnector transmission line between Lesotho and Republic of South Africa. This line will serve in facilitating power flow between LEC and Eskom in either direction.

With the current increasing power demand in the Southern African Development Community (SADC) region, Lesotho's objective of becoming a net exporter of clean energy by 2030 may be realised.

Currently, the access rate is only about 53%. The rural electrification rate stands at 11.4% compared to 71.3% in urban areas, highlighting a significant disparity in energy access.

In response to this situation, the Government has opened up to the new market entrants that include Ramarothole phase 2 of 50 MW solar PV with 7 MW battery storage, Neo I with about 24 MW solar PV, the 40 MWp/20 MWh Grid-Connected Photovoltaic and Energy Storage Station Project to be developed by Beijing Jingyuntong Technology Company Limited from China, and the Rexivista, a local company intending to develop 50 MW solar PV. Other Potential projects in the pipeline which are at feasibility studies stage include;

- **Oxbow Hydropower** Generation Project 80.3 - 90 MW
- **Kobong pumped storage** Hydropower of 1200 MW
- **Floating Solar PV** of about 200 - 400 MW (Polihali, Katse and Mohale dams)
- **60 MW wind** power plants to be developed by IPP
- **Senqu B, C and D Hydropower** projects: Total of about 122 MW
- **Muela hydropower** expansion by additional 40 MW
- **Jordan hydropower** potential of 36 MW
- **11 Small HPP**: Total of 88 MW
- **Quthing hydropower**: 15 MW

Clearly, Lesotho possesses significant renewable energy potential in hydro, solar and wind. On hydropower alone, due to its abundant water resources, the hydropower generation potential is approximately 450 MW. Solar PV and Wind potential equally provide huge opportunities.

Leveraging on the current trend of renewable energy and related technologies costs de-escalation, investments in renewables shall be competitive for mutual benefit.

Again, with such potential existing in Lesotho, combining the adaptation of energy efficient appliances across the country with smart infrastructure supported by digital applications, costs optimisation and better efficiency shall be achieved.

The IPPF provides for the interested investors in the energy sector to invest in both generation, transmission and distribution for both on and off-grid initiatives. It also provides for the facilitation of cross-border power exports by private investors. Given the situation explained above, potential investors may wish to exploit these opportunities.

Investment preparedness and sector reform needs: There are still some areas that pose doubts and reduce investor confidence thereby slowing down the crowding-in of potential investors. These include;

Energy Bill: the energy Bill which is taking very long to be enacted by the Parliament. On this aspect, the Minister responsible for energy who also serves as a Parliamentarian is trying hard to push this through.

Investment Facilitation: It takes very long for the prospective investors to go through the processes before the PPA and other agreements are concluded. It is envisaged to have an energy investment facilitation unit which shall be responsible for facilitating the investors from their first arrival to the end of the processes. That way, the investors shall only deal with one unit that will coordinate all the players on behalf of the investors. The Energy Bill provides for the Minister responsible for energy to establish this unit once the Bill is enacted.

Utility Performance: The utility has been operating under non-cost reflective tariffs that make it difficult to engage with the private developers as this will be loss making power trading. Besides, revenue collection from a number of consumers especially the Government related institutions has been very difficult. The Utility Board of Directors and the Government have well understood the implications of both the unrealistic tariff as well as revenue collections on the sustainability of the utility and are working on rectifying this along with other relevant institutions e.g., the regulator.

Projects preparations: A number of projects are still in the preparation phase, most of which lacking feasibility studies needed to ascertain viability. Cognisant of this situation, the Government through the Ministries of Finance and Energy are trying to mobilise the necessary financing through the Government treasury and the Development Partners to ensure timely conducting and finalising the studies.

Institutional Capacity: There is a visible lack of capacity within different Energy Sector Institutions to undertake the implementation of all planned initiatives. This has been causing delays in Government activities and inefficiencies across the institutions whereby some institutions even face financing support absorption capacity due to lack of effectiveness in implementation of projects.

One of the most important institutions is LEWA whose role is to regulate power and water in the country also faces internal capacity challenges. The entity lacks the necessary capacity for tariff settlement including lifeline tariff frameworks, development and implementation of regulatory data reporting and management system, technical and financial data improvement plan for the utility as well as monitoring and evaluation capacity within the authority.

The enactment of the Energy Bill shall unlock a number of proposed sector reforms among which transformations and reforms in the Department of Energy (DoE) and the REU are suggested. The badly needed staffing and the capacity enhancement in these entities including the Regulatory Authority shall be addressed.

Investment Risk: Owing to the utility situation as explained as well as the country credit rating, private Investments in big projects including Oxbow (90 MW), Senqu B, C and D (122 MW), the Kobong pumped storage (1,200 MW), etc shall need strong securities including sovereign guarantees, etc which might be difficult to grant. This situation may derail the crowding in of investments.

One of the measures the Government is looking at is His Majesty King Letsie the III **"Just Energy Transition Fund" (HMK JET Fund)**. Under His Majesty's efforts, a team of experts at technical level and a number of Ministers at a political level, have been working hard in mobilising the investment funds under the JET initiative. One of the key uses of this fund is to leverage foreign investments by contributing towards such investments and this will play a two-role purpose; one, it will boost the investor confidence where the assumed risk is shared with the local co-investment, and second, it will enable some of the investment returns to remain in the country.

A key untapped opportunity for Lesotho lies in international carbon finance, particularly through Article 6 of the Paris Agreement. Lesotho is eligible for bilateral cooperation under Article 6.2 and 6.4, which would enable the country to attract forward investment from international buyers for verified climate mitigation activities. Development of a national carbon finance strategy can help unlock premium co-financing for clean energy and clean cooking projects that reduce emissions.

PILLAR II
INCREASED REGIONAL INTEGRATION

Through the SAPP, Lesotho imports power from South Africa and Mozambique. The transmission network evacuates power from the generation sources at Eskom (South Africa) and EDM (Mozambique) to LEC load centres. The supply from Eskom and EDM (at Maseru intake) is transmitted through the 132 kV line to Mabote Substation. The supply from Eskom (Clarence intake) enters Lesotho through 88 kV line at Khukhune Substation in Botha-Bothe, while Qacha's Nek (in Lesotho) intake is through 22 kV line from Matatiele (South Africa). The transmission lines are of voltage levels 132 kV, 88 kV, 66 kV and 33 kV. However, there are places where LEC distributes with 33 kV like Thabana Morena in Mafeteng. The transmission voltages are stepped down to distribution voltages through 45 substations of which six of them namely Mabote, Mazenod, Maputsoe, Ramarothole, Litsoeneng and Khukhune Substations are critical for the supply of electricity countrywide. Qacha's Nek and Mokhotlong districts are the only districts that are not connected to the main national grid.

The distribution network distributes power from substations to electricity users. It ranges from the voltage of 11 kV up to the customers supply at 220V and 380V.

Plans are underway to upgrade the LEC Transmission grid from 132 kV to 275 kV. This will involve upgrading the thermal violation on the 132 kV line that links LEC to ESKOM grids.

Under the partnership protocols between South Africa and Lesotho, it has been agreed that Lesotho exports 2000 MW to South Africa and recently, the Lesotho Minister responsible for Energy and the Minister of Electricity of South Africa agreed to sign an MoU to that effect. This gesture shall motivate investments due to the assurance of power off-take and should Lesotho work faster in generation expansion, South Africa is likely to import more of this clean energy from Lesotho to curb their energy supply insecurity.

PILLAR III
CLEAN AND AFFORDABLE LAST-MILE ACCESS

Electricity Access

According to the Energy Sector Management Assistance Program (ESMAP) around 600 million people in Sub Saharan Africa still live without access to electricity. Lesotho is at 53% electricity access, about 47% of households do not have access. The EMP had assumed that in order to reach universal access by 2038 a total of M150,000,000.00 is needed with an allocation of

M30,000,000 to off grid systems and M120,000,000.00 to grid extension. However, electrification increased at a slow pace in the last 5 years with only 1.6% increase per annum, mainly through grid extension to households. Private sector investment and participation in mini-grids has also been extremely low with only 11 mini-grids constructed and a total of 840 households connected. Private sector stakeholders have identified several challenges during implementation, among them is slow connectivity of the end users due to low-income levels in these communities.

Secondly, the CAPEX costs were high as rural areas are remote, dispersed and harder to reach. This has led to slow progress in the construction of mini-grids and a growing need for additional support from the GoL to scale up implementation. In the same manner, there were energy shops that were established and supported under the United Nations Development Programme (UNDP) and GEF supported project which supplied rural communities with solar home systems, solar lanterns and energy-efficient cookstoves. These decentralized solutions offered a cost competitive alternative to grid expansion and were aimed at meeting demand levels too low to justify grid investments. However, these shops could not operate beyond the project cycle and eventually closed down due to low sales from low purchasing power from end users. In addition to affordability, poor quality of SHS equipment and standard installation have also contributed significantly to the slow uptake of the SHS in the country. Many SHS failed within months of installation due to the low quality of imported components and shoddy workmanship. One key lesson from the Lesotho Renewable Energy-based Rural Electrification (LREBRE) project was that ensuring quality and standards is essential for the sustainability of SHS interventions. In response, the Government aims to strengthen the role of the Department of Standards and Quality Assurance to regulate the importation and installation of renewable energy technologies. All installations and maintenance activities will be mandated to be performed by certified and licensed technicians, in line with established electricity codes and safety standards. These lessons have also informed the design of subsequent projects, such as SEforALL.

Given these constraints, the Government decided to revise the EMP and develop the NES, which aims to accelerate the electrification rate to reach universal access by 2030. This plan will clearly define the investment strategies required from both the Government and private sector. Furthermore, the GoL intends to develop a subsidy policy/framework to support the private sector in making the supply of OGS systems financially viable in rural areas. This subsidy will not only reduce the CAPEX burden of infrastructure but also ease connection fees and tariffs for end users.

To enable this, an Energy Bill had been developed and currently awaits parliamentary approval. Once enacted, it will establish an Energy Fund to finance the development of backbone infrastructure in remote rural areas. The enactment of the bill will also transform the DoE into the EC, which will oversee infrastructure development and maintenance. The REU will become the REA, responsible for ensuring the availability of commercial and modern energy services and technologies. Achieving SDG 7 by 2030 is possible only through a mix of grid, mini-grid, and stand-alone off-grid solutions, with a particular focus on the faster deployment of distributed renewable energy systems. More education and awareness programs on productive uses of energy are essential to stimulate demand, increase sustainability and improve livelihoods in rural communities. There is also an urgent need for national and regional funding to unlock private co-investment at scale, which will be a key to accelerating electrification in the country.

PILLAR IV
INCENTIVIZE PRIVATE-SECTOR PARTICIPATION TO UNLOCK ADDITIONAL RESOURCES

While the private sector has a significant role to play in helping Lesotho achieve its energy development objectives, private investment continues to be relatively low across the value chain. To date, the private sector has supported mini-grid deployment with 11 mini-grids operating up to date, distribution of solar home systems (to about 0.001% of households in 2024) and the promotion of improved cooking solutions (with approximately 8000 distributions since 2020). To further improve access, these technologies will benefit from a RBF mechanism recently introduced through a Financing agreement between the GoL and the European Union (EU). This initiative aims to incentivise the private sector participation and expand the reach of renewable energy solutions.

Large-scale private investment in power generation, transmission and distribution has been limited in Lesotho. In the generation space, private developers have been minimally instrumental in solar energy. However, Lesotho remains heavily dependent on electricity imports from South Africa and Mozambique and domestic generation still remains a challenge.

LEC has been solely responsible for the transmission and distribution infrastructure of the country. However, while private sector participation in transmission has been non-existent, the Government has recently shown interest in exploring private sector involvement in transmission projects through the development of an IPPF. This includes the potential development of Independent Power

Transmission Projects (IPTP), where private investors could contribute to grid expansion and modernisation.

Private sector participation in the generation projects requires international financing as local financing is limited to fund large-scale renewable energy projects. Regulatory uncertainties, lengthy approval processes and challenges related to risk allocation between off-takers and project developers remain key barriers to attracting private sector investment.

Securing financing for small-scale renewable energy projects in Lesotho remains a significant challenge. While initiatives such as matching grants and donor-supported programs have been introduced to support private sector participation, access to financing remains limited due to resource constraints and structural barriers.

For small projects, many developers lack sufficient equity or collateral to secure loans from local financial institutions. Additionally, the banking sector has limited experience in structuring loans tailored to renewable energy projects, leading to high transaction costs for both securing and servicing loans.

A major concern for investors is the lack of long-term predictability in the energy sector, particularly regarding tariffs allocation and risk allocation. This uncertainty affects investment decisions, as it impacts payback periods and project bankability. Additionally, public-private-partnerships in the energy sector are still evolving, with limited financial guarantees and Government backstopping to support private investments.

To this end, both the Government and the private sector players including the financial institutions, should take advantage of the available innovative business and financial models including blended finance, exploration and use of green bond markets, etc.

The IPPF under legal and regulatory framework has been developed and validated by the sector stakeholders. This instrument opens up for transparent and swift private investors and Government engagement in an efficient manner.

One of the key challenges in scaling private sector participation is the lack of a coordinated fiscal incentive framework, particularly regarding corporate tax benefits and import-related exemptions for renewable energy investments. While the MoE recognises the importance of such incentives in attracting investment, there has been limited buy-in to date from relevant authorities and stakeholders. This misalignment has resulted in the absence of formalised tax relief measures for IPPs and developers and consequently a lag in investor confidence.

Another significant affordability and liquidity challenge is the application of VAT on verified energy access products, such as solar home systems, clean cookstoves and sustainable fuels. To support electrification and clean cooking targets, the Compact will explore the introduction of VAT refund mechanisms or zero-rated VAT schemes for certified off-grid energy systems and clean cooking solutions. Such measures would lower the cost burden for companies operating pay-as-you-go models or managing rural energy logistics, enhancing market penetration and consumer affordability.

Resolving this institutional coordination challenge presents an opportunity. Once consensus is reached between the MoE, RSL, and the Ministry of Finance, the Government of Lesotho can move forward in developing a tailored fiscal incentive package. This would include assessing feasible ranges for corporate tax incentives, VAT and import duty exemptions for renewable energy equipment, accelerated depreciation allowances, and other tax-based measures that would enhance the viability of renewable energy projects under this Compact.

PILLAR V
WORK TOWARD FINANCIALLY VIABLE UTILITY THAT PROVIDE RELIABLE SERVICES

The biggest challenge African utilities including LEC in Lesotho face is **the balancing of cost reflective tariffs that would make the utility sustainably profitable and the consumers' affordability imperatives** especially when we are aiming at meeting the universal access target by 2030.

Cognisant of this challenging situation, the utility with assistance from the Government is undertaking a number of measures to overcome this challenge. Some of the measures considered in the near term include the following;

- Tariff adjustment to become cost reflective, with consideration of lifeline tariffs for affordability purposes to the low-income population
- Ensuring maximum collection of electricity bills. This may involve installation of prepaid meters
- Attending to and taking serious steps to avoid administrative/commercial losses that include meter tampering and other power theft mechanisms
- Utility internal management that ensures efficiency and effectiveness. This may involve but not limited to having clean books of accounts, ensuring regular audited accounts and reporting to the regulatory authority as required by the law

In the medium- and -long term perspective, the utility needs to undertake the following measures;

- Minimising technical losses to the extent possible by attending to regular maintenance of power systems
- Maintenance and replacement (where possible) of the aging network infrastructure which often results into unreliable services to customers and loss of revenue
- Continuous staff capacity enhancement to create
- internal expertise in maintaining the power systems as well as meeting the ever emerging technological advancement in this technological space.
- Building the internal skills base needed for tariff setting is also essential especially in PPA negotiations with IPPs as well as tariff adjustments when negotiating with the regulatory authority.

ANNEX I
METRIC OF KEY INDICATORS

Pillars	Metrics /Indicators	Data (Latest available)
Pillar 1: Expand Generation, Transmission, and Distribution Networks at Competitive Costs	**Generation capacity installed/available** (MW) by 2024	**104.7 MW installed (97.8% available – a 0.3 solar PV plant and a 2MW Mini Hydropower Plant are dysfunctional)** • Hydro: 70.6% • Solar PV: 28.9% • Diesel: 0.3%
	• Average annual growth rate (%) (of last three years)	• Annual growth rate: 18.4%,
	• Energy produced annually (MWh): Total by 2024	• 48,781.9 MWh ..... of which; • Hydro: 97.6% • Solar: 0.9% • Diesel: 1.5%
	• Average cost per kWh: renewable	• US$0.092/kWh
	• Energy imported annually (MWh): Total by 2024 • Average annual growth rate (%) (of last three years) • Average cost per kWh (US$)	• 475,846.65 MWh • 5.6% • US$0.114/kWh
	• Energy exported annually (MWhs): Total by 2024 • Average annual growth rate (%) (of last three years) • Total revenue (US$)	• 46.91 MWh • 80.2% • N/A
	• Transmission network: low-voltage (LV), medium- voltage (MV), high-voltage (HV),	• Total HV: 799km • 132 kV AC – 656 km • 88 kV AC – 86 km

Pillars	Metrics /Indicators	Data (Latest available)		
	• Total: length (km); voltage (kV): transfer capacity (MW/MVA)	• 66 kV AC – 57 km		
	• Rehabilitation Costs	US$0.4 billion		
	• Expansion Costs	US$1.7 billion		
	• **Distribution network** (LV) • Total: length (km), voltage (kV)	• Total MV: 5,356.9km • 33 kV: 872.58 km • 22 kV: 0.32 km • 11 kV: 4484 km		
	• **Access to energy (electricity)**			
	• Number of on-grid connections (by customer type)			
	Customer type	**2021/2022**	**2022/2023**	**2023/2024**
	Households	276,293	284,511	292,116
	Industries	202	207	207
	Commercial (SGR)	254	255	255
Pillar 2: Regional Integration	• **Transmission interconnectors** (HV) • Total: length (km), voltage (kV)	• Lesotho-South-Africa (Tweespruit – Mabote intake): 132 kV; 68 km • Lesotho-South Africa (Clarens to Kukhune intake: 88 kV; • Lesotho South Africa (Qacha's Nek intake): 22 kV;		
	• Bilateral power purchase agreements/MOUs	• LEC/ESKOM/EDM		
	• Energy traded in power pool	• Currently - N/A		
	• Transmission wheeling charges (26,022US$ per kWh)	• Eskom $0.03 per kWh		

Pillars	Metrics /Indicators	Data (Latest available)
Pillar 3: Last-mile	• Connectivity – Number of new mini-grid connections (by customer type) (last three years) – Number of solar home systems (last three years)	• • Residential households and small-scale commercial: 791 • Households: 78,490
	• Clean Cooking – Number of clean cooking connections	• 271,099 households
Pillar 4: Private-Sector Participation	• Total investment required to meet 2030 Energy Compact goals/targets: public/private	• US 2,018 Million
	• Total (private) investment needs by 2030 (US$, percentage)	• US$1,434 Million (50.8%)
	• Investment gap to be mobilized each year up to 2030: public/private	• US$40 Million p.a. (public) • US$226.4 billion p.a. (private)
Pillar 5: Sector Reforms and Sustainable Utilities	• Utility financial profitability (per audited accounts): Net income/loss for Discos, Transcos, Gencos	• US$20.3 million (income) - total
	• Regulator: tariff policy, average end-user tariffs (per kWh), and trajectory to full cost reflectivity (current % of recovered costs to achieve 2030 target)	• To be determined after cost-of-service study by 2026
	• Path/timelines to full cost reflectivity	• To be determined after cost-of-service study by 2026
	• Aggregate technical & commercial & collection losses: % reduction targets per year.	• Current 10%; reduction 20.9% p.a.
	• Number of customers connected to the grid	• 310,186 as of April 2024
	• Load-shedding	• No load shedding except in Qach's Nek and Mokhotlong districts that are yet to be connected to the national grid.

ANNEX II
PROJECTS & INVESTMENT NEEDS

Last-Mile Connectivity Projects

S/N	Project Name/Details	Estimated Cost (US$ million)
1	Roll-out of Off-grid electrification programme	55.9
2	Productive Use of Energy promotion in rural mini-grid areas	10
3	Grid electrification	128
4	Solar street lighting (Roma 5.1km, Semonkong 2.1km, Ha Sekake 2.2km)	5.1
Total		199

Grid Stabilization Projects Phase II

Transmission lines

S/N	Project Name/Details	Estimated Cost (US$ million)
1.	132 kV Line (Mofoka – Qacha's Nek (Mofoka substation to Mpiti substation: 146km line and 132 kV line, Mpiti substation to Sehlabathebe: 60km line and 33 kV line)) with evacuation to power plants	77.1
2.	400 kV operated at 275 kV Transmission Line Interconnector between Lesotho and Republic of South Africa (68km line)	100 .0
3.	Construction of 33 kV line; 11 km from Mohale Sub-station to existing Roma-Thaba Tseka line :132/33 substation	5.3
4.	Construction of 30 km of 132 kV line of BARE conductor from 132/33 kV Mofoka switching station to 33/11 kV to Thetsane substation & construction of new 132/33 kV, 2 x 40MVA Transformer at Thetsane substation	33.8
5.	Construction of 33 kV line from Teyateyaneng to Mapoteng (31 km) to Maputsoe (31 km) and New 33/11 2x 5MVA substation at Mapoteng substation	4.1
6.	Construction of 33 kV; 20 km line from Morija to Kolo	2.5
7.	Construction of 33 kV line; 91 km from Ha Makhakhe to Ribaneng to Mpharane to Mohale's Hoek	2.5
8.	Construction of 33 kV line from Thaba Tseka to Qachasnek (80km)	3.5
9.	Construction of 33 kV line from Makunyapane to Mokhotlong (40km)	2.0
Total		**230.8**

Grid Stabilization Projects Phase II

Distribution lines

S/N	Project Name/Details	Estimated Cost (US$ million)
1.	Construction of Marabeng substation 33/11 kV line; 0.8km 2*10MVA	1.7
2.	New Makhoathi 33/11 kV substation: New 2 x 10 MVA power transformers and new 33kV; 11km line to Mazenod 132/33 kV substation	3.9
3.	New Ntjabane 33/11 kV Substation; 33kV line; 10km	4.2
4.	New Botha-Bothe II, 33/11 kV substation, New 2 x 10 MVA power transformers and 10 km of 33 kV line	3.9
5.	New construction of Hlotse 33/11 kV Substation: 2 x 10 MVA	1.7
Total		**15.4**

Rehabilitation Projects

S/N	Project Name/Details	Estimated Cost (US$ million)
1.	Rehabilitation and Upgrading of Tsoelike Hydropower Generation Plant (Detailed designs)	0.8
2.	Upgrading of Leloaleng substation from 1x5 MVA to 2 x 10MVA	1.7
3.	Construct double circuit 33 kV line; 24 km between Mabote, Highway, LEC Border & Pioneer to relieve overloaded 33 kV ring	5.5
4.	Pitseng 132/66/11kV Substation Upgrading	1.7
5.	Installation of SVC at Lejone substation/s	1.7
6.	Construction of 66 kV transmission line (60 km) of BARE conductor from Katse Dam to T/Tseka & Extension and Upgrading of existing 33/11 kV substation to 2x10MVA, 66/33/11 kV substation	44.3
7.	Roma 33/11 kV substation: Replacing 2 x 5 MVA Power transformers by 2 x 10 MVA power transformers	1.9
8.	Ts'osane 33/11 kV substation: Replacing 2 x 5 MVA Power transformer by 2 x 10 MVA	1.9
9.	Pioneer 33/11 kV substation: Replacing 2 x 10 MVA Power transformers by 2 x 20 MVA power transformers	2.9
10.	Upgrade of Khukhune substation to 2 X 30 MVA transformers	10.6
Total		**73.0**

Generation and Transmission Projects

Contribution to Compact Targets							
Project Name	**Timeline**	**Project Description**	**Funding (USD Mill)**	**Access to Electricity (people or connections)**	**Access to Clean Cooking (households)**	**Renewable Energy Installed (MW)**	**Relevant Pillar(s) & Binary Targets**
Oxbow Hydropower Generation Project	2032 (70% completion by 2030)	Lesotho Highlands Water Project (LHWP) Phase II aims to construct a 90 MW Oxbow hydropower generation plant. The feasibility studies completed, now undertaking final engineering designes.	440.0			90 MW	Pillar I
Senqu river hydropower projects	2036 (30% completion by 2030)	The project aims to go through the preparation phase (feasibility studies) for potential of power generation along Senqu B (82 MW), C (10 MW) D (30 MW)	600.0			70 MW	Pillar 1
24 MW solar PV at Ramarothole	2027	24 MW solar PV plant	32.3			24 MW	Pillar I
50 MW solar PV Ramarothole phase 2 with 7 MWh battery storage	2027	50 MW Solar plant with a 7 MWh storage	67.4			50 MW	Pillar 1
40 MW solar PV/20MWh storage to be developed at Mafeteng	2027	40 MW solar PV with a 20 MWh storage	53.9			40 MW	Pillar I
Rehabilitation and upgrading of Katse 1.1 MW hydro power plant at Katse dam	2026	Rehabilitate and upgrade of 1.1 MW hydro power plant	8.9			1.1 MW	Pillar I

60 MW Wind power	2028	A 60 MW Wind power	89.9		60 MW	Pillar 1
Battery energy storage	2027	600 MWh BESS	47.5			Pillar I
50 MW Solar PV (Rexivista)	2030	50 MW solar plant	89.0		50 MW	Pillar 1
Total cost			**US$ 1,428.9**			

ANNEX III
ONGOING ACTIVITIES WITH SUPPORT FROM DEVELOPMENT PARTNERS

Development Partner	Project Name	Timeline	Project Description/Components	Funding (USD Mill)	Contribution to Compact Targets: Access to Electricity (connections)	Access to Clean Cooking (households)	Renewable Energy Installed (MW)	Relevant Pillar(s) & Binary Targets
World Bank	Lesotho Renewable Energy and Energy Access Project (LREEAP)	2022 - 2027	**Grid extension to peri-urban areas of Lesotho** • Belo industrial park at Botha-Bothe • Grid extension to Tikoe industrial zone • Grid extension to households **Rural electrification by mini-grids** • Rehabilitation and upgrading of Semonkong mini-grid	**8** (SREP loan) **4.9** (SREP Grant)	11,416			Pillar I Pillar III

			• Mini-grids development under PPP model **Technical assistance and implementation support** • Project implementation and coordination support • (Women employment, female entrepreneurship, consumer education and citizen engagement and productive use of Energy • Contingent emergency response.	**40** IDA Financing (concessional loan)				
JICA	Katse 1.1 MW hydropower project	2022 - 2025	The Project's objective is to construct a 1.1 MW hydropower plant to increase security of supply	**8.9** Japanese Govt Grant			1.1 MW	Pillar I
EU	Renewable Lesotho Project	2022 - 2027	Technical assistance to the public and private sector	**16.3** (EU Grant)				Pillar I
			Grant Facility	**0.2** (UNDP Grant)	4,400 Mini-grid Connections and 3,402 SHS connections	4,194 Households		Pillar II
			Lending Facility	**0.2** (Ireland Grant)				Pillar III
EXIM Bank of China	Ramarothole 50 MW solar generation plant	2024 -2027	The project objective is to construct a 50 MW solar pumped storage with a 7 MWh storage	**67.4** (Exim Bank (loan)			50 MW	Pillar I
Total cost				**US$ 145.9**				

ANNEX IV
ONGOING PROJECTS FINANCED BY THE GOVERNMENT OF LESOTHO THUS FAR

Project Name	Timeline	Project Description	Funding (USD Mill)	Contribution to Compact Targets		
				Access Growth to Electricity (Households)	Access Growth to Clean Cooking (Households)	Relevant Pillar(s) & Binary Targets
Rural Electrification	2016 -2030	Provision of rural off grid and grid electrification	13.3	18,900 households per annum (688 mini-grid connections and 18,212 off-grid solar connections)	15,000 households	Pillar III
Mphaki -Sekake Transmission line (33 kV)	2025–2026	Construction of a 33 kV transmission line, 28 km from Mphaki to Ha Sekake	1.4			Pillar 1
Ramarothole 50 MW solar generation plant	2025 -2027	The project objective is to construct a 50 MW solar pumped storage with a 7 MWh storage	67.4			Pillar I
Total cost			US$ 82.1			

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