REPUBLIC OF KENYA

MINISTRY OF ENERGY & PETROLEUM

STATE DEPARTMENT FOR ENERGY

Kenya National Energy Compact 2025 – 2030

Draft 2

July 2025

Preamble

To provide reliable, competitive, affordable and sustainable energy to support national development and just energy transition.

Kenya's journey towards achieving sustainable and inclusive development requires reliable, competitive, affordable and sustainable energy to support its national development.

The energy sector in Kenya has been developed on the backbone of strong legal, policy and regulatory frameworks designed to address the country's energy and economic needs. They have fostered regulatory reforms and incentivized investment in the energy sector and laid the foundation for energy governance in the country both at the national and county level.

These frameworks undergo continual, review, improvement and updates to ensure the country's adaptability and resilience to evolving local, regional and global trends and phenomena, which have yielded several benefits and milestones, but have equally exposed diverse challenges.

Kenya has made significant strides in expanding electricity access, with national access levels rising from approximately 30% in 2014 to over 75% by 2024. This progress has largely been complemented by a strong focus on renewable energy development, which now accounts for 82% of the country's total installed electricity generation capacity and 93% of actual energy consumption. Notably, Kenya leads the African continent in installed geothermal capacity and ranks sixth globally. The country also boasts an extensive transmission network, spanning 9,484 kilometers, including three regional interconnectors that support cross-border electricity trade. Despite these achievements, critical challenges still exist, necessitating the need for urgent, strategic and coordinated interventions.

Approximately 25% of Kenyans still do not have access to electricity, with the rural areas disproportionately low on access. Over 69% of households rely on traditional biomass for cooking, contributing to deforestation, health risks, and environmental degradation. The high cost of energy, compounded by reliance on imported fossil fuels impedes energy security, economic stability and industrial growth.

As a result, key strategies and focus areas have been developed to aptly address these challenges and risks while sustaining the country's momentum towards achieving its National Development Goals. These strategies align with Mission 300's transformative impacts which come at an opportune time when the African continent is at the cusp of economic revolution.

Kenya's commitment to transforming the standard of living especially in off-grid and vulnerable communities is espoused through achieving universal access to electricity and clean cooking by 2030 and mainstreaming gender equity in the energy sector. This will ensure inclusive energy development while improving the livelihoods of all Kenyans.

The sector's commitment to providing reliable, competitive and sustainable energy to create jobs, foster higher incomes, and stronger economic growth will be achieved by expanding and modernizing energy infrastructure. This will be supported through establishing regulatory frameworks and roadmaps to ensure grid stability and reliability thus transitioning the electricity sector to a competitive local and regional power market. To spur investment and economic growth, the sector will develop sustainable and innovative financing frameworks and risk mitigation strategies that will encourage strategic investments and partnerships thus stimulating competitive private sector investment and participation.

The country's focus on accelerated development on renewable energy to reduce dependence on polluting fuels while advancing climate and health goals aligns with its global climate commitments. It is aimed at achieving 100% clean energy in the national power system by using LNG as a transition fuel and doubling the energy efficiency improvements by 2030**.**

Kenya therefore affirms its commitment to Mission 300, through provision of game-changing opportunities to lift millions out of energy poverty, unlocking opportunities and driving socio-economic growth.

ACRONYMS/ABBREVIATIONS

BESS	Battery Energy Storage System
CCAK	Clean Cooking Association of Kenya
DFI	Development Finance Institutions
EAPP	Eastern African Power Pool
EPRA	Energy and Petroleum Regulatory Authority
FIT	Feed-in Tariff
GDC	Geothermal Development Company
GoK	Government of Kenya
GSM	Government Support Measures
INEP	Integrated National Energy Plan
IPP	Independent Power Producer
KenGen	Kenya Electricity Generating Company PLC
KETRACO	Kenya Electricity Transmission Company
KNCTS	Kenya National Cooking Transition Strategy
KNeCS	Kenya National eCooking Strategy
KNES	Kenya National Electrification Strategy
KPLC	Kenya Power and Lighting Company PLC
LNG	Liquified Natural Gas
LPG	Liquefied Petroleum Gas
MoEP	Ministry of Energy and Petroleum
MW	Mega Watts
M&E	Monitoring and Evaluation
NDC	Nationally Determined Contribution
NEMA	National Environment Management Authority
NT	National Treasury
NuPEA	Nuclear Power and Energy Agency
O&M	Operation and Maintenance
PUE	Productive Use of Energy
REREC	Rural Electrification and Renewable Energy Corporation
SDE	State Department for Energy

Contents

Executive Summary

This compact underpins Kenya's commitment towards achieving its economic, social and environmental development goals by focusing on resource development and diversification, innovation, equity, sustainability, climate resilience, regional trade and industrialization. It has been developed in alignment to the country's national development goals and plans, global commitments and the energy sector's policy and regulatory objectives. It was developed in a consultative manner with the relevant approval processes in accordance with the country's laws and procedures.

It centres around the five key pillars enumerated in Mission 300 with each pillar bearing specific commitments that are broken down into clear action plans together with the resources and support required to achieve these goals within stipulated timelines. It also bears a retrospective aspect by building on past and existing efforts to ensure progressive and sustainable development of the itemized initiatives thus including the existing / ongoing projects and programs.

Pillar I: Enhance Capacity Expansion at Competitive Costs:
The government intends to efficiently rehabilitate, modernize and expand power generation, transmission and distribution capacity at competitive costs through the following initiatives which have clearly defined targets, outcomes and timelines:

i. **Operationalizing the Integrated National Energy Plan (INEP)** Framework and regulations. This will ensure that power planning and governance will be adaptive, data driven, optimized and aligned with least-cost principles and emerging technologies thus ensuring cost-effective, sustainable sector development.
ii. **Increasing renewable power generation 6,260MW** by scaling up the installed capacity to 1800MW of geothermal, 2060MW of hydro, 965MW of wind, 577MW of solar, 133MW of cogeneration, 400MW of import and the use of transitional fuels like LNG. The increase will drive the country to achieve its target of moving from 82% to 100% clean energy sources on the national grid by 2030.
iii. **Modernization and expansion of the transmission network** by 8,000km and 12,000MVA transformation capacity by 2030 hence increasing efficiency and availability of the transmission system.
iv. **Enhancing the automation, reliability and efficiency of the distribution system** while expanding it by 212,937km and further increasing the number of household connections by 5.1 Million, will increase access to reliable electricity.
v. **Competitive energy procurement and pricing** will be promoted through operationalization of the Renewable Energy Auction Policy and Open Access, bulk supply and market regulations which are aimed at achieving transparent, least-cost procurement of power at cost-reflective tariffs.
vi. **Innovative and sustainable financing options from local and international sources** including de-risking instruments will be explored as avenues to mobilize the targeted funding (USD 18.73 Billion: Private sector 7.91Billion, Public sector 10.82Billion) for energy projects from public and private sources as well as operationalizing the Consolidated Energy Fund.

Pillar II: Leverage Benefits of Increased Regional Integration
Through its membership with the Eastern African Power Pool (EAPP) Kenya has been a beneficiary of regional power trade which has enhanced the country's energy security. The government commits to enhance regional integration by investing in interconnections and promoting power trade through the following activities:

i. Finalizing and operationalizing **competitive local and regional power market regulatory frameworks, guidelines and procedures** by 2027 while building institutional capacity to support regional power trade. These efforts will support the country in actively participating in the Eastern Africa Power Pool (EAPP) by buying/selling power and providing wheeling services. It will further deepen regional integration and optimize the use of regional generation resources.
ii. Leveraging on the existing and planned regional interconnectors by **scaling up imported and exported power to 1000MW** by 2030. This will maximize the capacity and investment made in these interconnections while optimizing Kenya's strategic positioning in regional power trade.
iii. Completing pending transmission infrastructure (**Kenya–Uganda 400 kV interconnection** by 2030) as well as **expanding cross-border electricity supply to underserved border towns** and communities (target: Mandera, Takaba, Banisa, Rhamu, Sololo new towns) will enhance energy security and power supply while providing additional revenue from power trade and cross border power supply as well as access to cheaper sources of power.

Pillar III: Clean and Affordable Last Mile Access:
The government is committed to providing affordable, reliable, and sustainable energy to all citizens by achieving universal access to energy (electricity and clean cooking) by 2030. This goal is to be achieved through a combination of grid expansion, off-grid solutions and the integration of renewable energy technologies enumerated below:

i. **Connecting an additional 5.1 Million Households** through on and off-grid solutions as outlined in the Kenya National Electrification Strategy (KNES 2025) road map, will drive the achievement of universal access to electricity.
ii. Various strategies towards **achieving universal access to clean cooking by 2030** have been developed which will require implementation. These include the Kenya National Cooking Transition Strategy (KNCTS), Kenya National

Electric Cooking Strategy (KNeCS), the Behavior Change and Communication Strategy for the Promoting Clean Cooking in Kenya, the Bioenergy Strategy and the supporting regulations. Transitioning 65.6% of the population from traditional biomass cooking methods to clean cooking solutions by 2030 will require the supply and affordability gap for clean cooking solutions to be bridged. In addition, a national clean cooking support facility will be established to promote local manufacturing of clean cooking appliances and development of value chains for energy crops.

iii. **Productive Use of Energy (PUE)across grid, mini-grid and off-grid sectors** are key energy demand and economic drivers. The finalization and implementation of the Kenya National PUE Strategy by June 2026 will also stimulate the increase in access to productive use appliances and equipment across essential sectors of the economy.

Pillar IV: Incentivize private sector participation to unlock additional resources

Private sector participation plays a key role in accelerating development as well as increasing investment in the energy sector. Creating an enabling environment for their involvement is therefore essential in sustaining the sector's momentum for growth. The following initiatives are aimed at achieving the above-mentioned goal:

i. **Fiscal and non-fiscal incentives** to spur private sector participation and enhance competitiveness, knowledge transfer and innovation will be channelled through standardised PPAs & procurement guidelines, renewable energy auctions & FIT regulations, PPP regulations, mini-grid regulations, expanded tax exemptions on power infrastructure equipment, asset monetization and competitive sourcing of financing for energy projects.

ii. **Innovative financing and de-risking mechanisms** are equally key in accelerating private sector investment. These will be achieved through supporting GDC in geothermal drilling activities and scaling up risk mitigation facilities for geothermal, scaling up resources from insurance schemes, reviewing and updating the Government Support Measures (GSM) policy including letters of support, Green Bonds and Sustainability bonds. These initiatives will increase the number of bankable projects and unlock more private sector investment in energy projects.

iii. **Local capital for investment in energy projects and programs** will play a major role in enhancing competitiveness. Facilitating the mobilization of these funds will reduce reliance on foreign capital, mitigate against foreign currency risks hence reduce the cost of investment and strengthen the capital markets and financial markets in Kenya.

iv. Carbon markets serve as leverage to enhance investment viability and competitiveness in energy investments and projects. **Facilitating and supporting listing of carbon projects and programs** and enhancing capacity of the public sector will increase access to innovative financing and alignment of national climate goals.

Pillar V: Work toward financially viable utilities that provide reliable service
The financial viability of sector utilities is pivotal in the optimal operation and growth of the sector. It is therefore imperative to ensure the sustained efficiency and profitability of the key players in the sector's value chain. The following initiatives are aimed at achieving this goal:

i. Continually **monitoring the implementation of sector utility business and investment strategies**, to achieve increased operating efficiency and profitability including special procedures, specifications and exemptions for critical infrastructure in transmission and distribution. This is supported by enhancing HR Instruments to promote staff retention and skills-based benefits

ii. **Competitive sourcing for financing energy programs and infrastructure projects** as well as undertaking cost of service studies and tariff reviews that will facilitate / yield cost reflective consumer tariffs due to competitive costs in development of energy infrastructure.

iii. **Diversification Projects and Partnerships** including engagement of Geothermal Direct Use, dedicated generation and supply to Green Energy Parks and industrial zones, will increase revenue streams for sector players.

iv. **Demand Stimulation** through Time of Use Tariffs, E-cooking tariffs, rebates schemes and supporting demand drivers like green hydrogen and e-mobility, will increase efficiency and competitiveness of manufactured commodities in the country.

v. **Digitalization and Innovation** through use of Smart grids, Data analytics for predictive maintenance and Internet of Things to increase efficiencies.

vi. **Mainstreaming Gender Equity** by implementing the Gender in Energy policy programs and action plans as well as increasing private sector involvement in gender mainstreaming.

These initiatives require a total estimated investment of MUSD 18,732.56 of which 10,822.66 MUSD will be sourced from public sector (and development partners) while 7,909.9 MUSD will be sourced from private sector.

1. Declaration of Commitment

The government of Kenya is committed to ensuring reliable, affordable, sustainable, inclusive, and clean energy to all. To this end, the government intends to undertake the following:

- Increase access to electricity from current 75% to 100% by 2030 by connecting an additional 5.1 million households.
- Increase access to clean cooking from the current 34.4%% to 100% by 2030.
- Increase the share of clean energy from the current 83% to 100% by 2030
- Create an enabling environment to attract more Private Capital from the current estimated value of US$ 2.1 Billion to over US$ 8 Billion.
- Double energy efficiency improvement by 2030 by reducing the national energy intensity by 2.8% per year

Kenya's Energy objectives are aligned to the MTP IV of the Vision 2030 and reliable, competitive, affordable and energy access for all Kenyan is essential to realizing the National development aspirations. The compact's emphasis on sustainable and inclusive energy solutions supports Kenya Vision 2030, which aspires to transform Kenya into a newly industrialized, middle-income country providing a high quality of life to all its citizens. It also directly supports SDG7 by promoting affordable, reliable, sustainable, and modern energy for all.

The compact also complements the Agenda 2063 by promoting regional interconnections and power trade. This will support social economic growth in the Eastern Africa block. Through the strides made in the sector to date, Kenya is well positioned as a regional hub for clean energy innovation.

To achieve the targets outlined in the National Energy Compact, the Government of Kenya is committed to addressing key challenges across the energy value chain, as outlined in the Compact's action plan. The government will:

Pillar I: ENHANCE CAPACITY EXPANSION AT COMPETITIVE COSTS

The government commits to efficiently rehabilitate and expand power generation, transmission and distribution capacity at competitive costs. Operationalize the Integrated National Energy Planning (INEP) Framework and regulations to strengthen governance and provide a coordinated approach to energy development.

Increase the share of renewable energy in the energy mix, leveraging on the abundant renewable energy resource potential of the country to enhance energy security and achieve the national climate goals.

Develop and strengthen transmission and distribution networks in line with the Transmission and Distribution Grid Code requirements to improve reliability and extend access to underserved regions. This will improve the quality of electricity services, reduce outages, and ensure access to energy across all regions.

Ensure Competitive energy procurement and pricing mechanisms to create transparency, cost-efficiency and long-term sustainability in the energy sector. This will create a good environment to attract more investment in the sector.

Mobilize funding for energy projects from public and private sources by creating an enabling environment that attracts private capital while using the public funds to de-risk investments and support critical infrastructure.

Pillar II: LEVERAGE BENEFITS OF INCREASED REGIONAL INTEGRATION

Kenya has been a beneficiary to regional power interconnectors which have enhanced the country's energy security. The government commits **to enhance regional integration by investing in interconnections and promote power trade**.

To support the efforts of increased regional integration, the government will finalize on drafting and operationalization of power market rules, guidelines, and procedures at both the local and regional levels.

Pillar III: CLEAN AND AFFORDABLE LAST MILE ACCESS

The government is committed **to providing affordable, reliable, and sustainable energy to all citizens by 2030**. This goal is to be achieved through a combination of grid expansion, off-grid solutions, and the integration of renewable energy technologies. The government is committed to **connecting an additional 5.1 million households which will increase the access to a total of 15 million households** through a mix of on-grid and off-grid solutions.

Kenya is also prioritizing universal access to clean cooking by 2030 by **transitioning 65.6% of the population from traditional biomass cooking methods** and **actively promoting the productive use of energy** for grid-connected, mini-grid, and off-grid systems to drive economic development.

Pillar IV: INCENTIVIZE PRIVATE SECTOR PARTICIPATION TO UNLOCK ADDITIONAL RESOURCES

The government is committed to **creating a more enabling environment for private sector involvement with enhanced clarity on participation and available support measures.** This includes **providing both fiscal and non-fiscal incentives to support private sector participation and enhance competitiveness** in the energy value chain.

Facilitation of innovative financing mechanisms and de-risking strategies such as blended finance, Government Support Measures, including Letter of Support, guarantees, public-private partnerships, and other tools to address the financial and operational risks that may deter private investment.

The government seeks to **mobilize local capital by encouraging domestic investors and financial institutions** to participate in energy investments to enhance competitiveness in the sector.

The government plans to **actively encourage low-carbon and climate-resilient energy solutions to leverage on carbon markets** by tapping into international and regional carbon financing mechanisms to enhance investment viability and competitiveness in energy investments and projects.

Pillar V: WORK TOWARD FINANCIALLY VIABLE UTILITIES THAT PROVIDE RELIABLE SERVICE

The government commits to ensuring financially viable utilities that prioritize energy security and provision of reliable, affordable, and sustainable electricity services. To achieve this, the government will ensure there is continuous monitoring of the business and investment strategy implementation.

Conduct cost-of-service studies and tariff reviews as per the stipulated cycles to ensure that electricity pricing is cost reflective. **Reduction of power system losses** by modernizing infrastructure, improving grid management, and addressing inefficiencies. Focus on **improving the competitiveness of financing for energy projects** and pursuing diversified financing options and strategic partnerships that support innovation and cost effectiveness.

The government will **ensure that the utilities will work towards stimulating demand** by promoting productive uses of energy. **It will also improve operational efficiency** to strengthen utility performance and **mainstream gender equity in the energy sector**.

1.1. Funding Needs from the Public and Private Sectors By 2030 (US$ million)

	Generation	Transmission	Distribution	Last-Mile	Mini-Grids/ Stand-Alone PV	Clean Cooking	E-mobility	Productive Use of Energy	Incentivize private sector	financially viable utilities	Total
Public	**1,926**	**1,501**	**1,161.9**	**4,704**	**143.9**	**489.4**	**47.26**	**2**	**310.5**	**30**	**10,315.96**
Private	**6,293**	**925**	**46**	**0**	**143.9**	**500**	**100**	**0**	**2**	**0**	**8,009.9**
Total	**8,219**	**2,426**	**1,207.9**	**4,704**	**287.8**	**989.4**	**147.26**	**2**	**312.5**	**30**	**18,325.86**

Funding Needs per year Financial Year

Indicator		Base line	FY 2025/2026			FY 2026/2027			FY 2027/2028			FY 2028/2029			FY 2029/2030			TOTALS	
			Units per year	Public (MUSD)	Private (MUSD)	Units per year	Public	Private	Units per year	Public	Private	Units per year	Public	Private	Units per year	Public	Private	Public	Private
Generation(MW)	Geo	943.7	70			228.4			260			100			225				
	Hydro	872.3	10.4			2.4			8.6			119.65			1,083				
	Wind	436.1	-			-			150			50			330				
	Solar	442.9	1.5		9.44	-	-	794.39	242.5	199	635.68	50	146.57	873.70	70	1580.42	3980.27	**1,926**	**6,293**
	Biomass	163.8	1.44			-			-			30			100				
	BESS	-	-			100			100			-			200				
Transmission	HV Line Length (km)	9,484	11	46.57	-	126.5	118	14.4	1,297	240.69	521.76	1,360	203.05	266.61	2,666	892.76	122.05	**1,501**	**924.82**
	Capacity (MVA)	12,410	100			644			5,534			862			884				
Distribution	MV Line Length (km)	86,212	502	51.8	-	592	61.1	-	200	20.6	-	83	8.5	-	14	1.4	-	**143.4**	**-**
	Capacity (MVA)		130.5	69.5	-	354.5	188.7	-	488	238.5	-	401	213.4	-	120	63.8	-	**773.9**	**-**
Universal Access	On-Grid	10,045,491	980,000	941	-	980,000	941	-	980,000	941	-	980,000	941	-	980,000	941	-	**4,704**	**-**
	Off-Grid		42,000	28.78	28.78	42,000	28.78	28.78	42,000	28.78	28.78	42,000	28.78	28.78	42,000	28.78	28.78	**143.9**	**143.9**
Metering Distribution Transformers		0	10,000	15	-	30,000	45	-	-	-	-	-	-	-	-	-	-	**60**	**-**
Smart-grid Implementation.	ADMS & Relays	-	-	10	-	-	10	-	-	10	-	-	10	-	-	-	-	**40**	
Clean cooking	% of households accessing LPG	30.7	31	2.3	1.9	34	22.8	19.4	39	38.0	32.4	44	38.0	32.4	50	45.6	38.9	**146.82**	**125**
	Electric cooking	1.3	2	4.2	3.7	3	20.9	18.3	5	41.8	36.6	7	41.8	36.6	10	62.7	54.9	**171.29**	**150**
	Bioethanol	1.8	6.8	21.7	31	12.6	25.2	36	18.6	26	37	23.6	21.7	31	30	27.7	39.7	**122.35**	**175**
	Biogas	0.3	0.7	7.3	7.4	1.1	7.3	7.4	1.6	9	9.2	2.3	12.7	12.9	3	12.7	12.9	**48.94**	**50**
E- mobility	EV Charging Stations	100	1,000	9.16	10	2,000	13.9	20	2,000	-	20	3,000	24.2	30	2,000	-	20	**47.26**	**100**
Productive Use of Energy		n/a	-	2														**2**	
Incentivise Private Sector	N/A	N/A	N/A	1	-	N/A	82	-	N/a	70.5	2	N/A	56	-	N/A	101	2	**310.5**	**2**
Financially viable Utilities	N/A	N/A	N/A	-	-	N/A	16.5	-	N/A	10.5	-	N/A	3	-	N/A	-	0	**30**	**0**

2. Compact Targets and Action Plan

Achieving the above overarching trajectory targets will require critical reform actions to be taken across the energy-sector value chain, the most critical of which are included in the action plan below.

Target	Current Annual Pace (2024)		Targeted Pace Between 2025 and 2030
Increase Access to On-Grid and Off-Grid Electricity	On Grid	400,000 connections per year	Above 980,000 connections per year
	Off Grid	11,000 mini -grid connections per year	40,000 and 2,200 connections (mini-grid and stand-alone systems respectively) per year
Increase Access to Clean Cooking	34.4%[1] of population has access to clean cooking[1] (Number of households accessing clean cooking is 4.8 million)		Attain 100% access to clean cooking. (An additional 10.2 Million households targeted to increase access to 15 million households)
	Current Share (MW) of Clean Energy in Generation Mix		**Target by 2030**
Increase share of clean energy	2627 MW		Increase renewable energy capacity to 6,260MW
	Baseline		**Target by 2030**
Amount of Private Capital Mobilized	Generation	US$ 2.1 Billion	US$8.2 Billion
	Transmission	Nill	US$987 Million
	Distribution	US$14 million	On-Grid Access: US$300 million Off-Grid Access: US$1.5 billion (Total: US$1.8 billion)
Amount of Private Capital Mobilized	Clean cooking - Approximately US$140million		US$282 million per year (public - US$210.7 and private - US$71.6

[1] Kenya National Clean Transition Strategy defines clean cooking as cooking with fuels and stove combinations that meet the standards defined by the World Health Organization (WHO) guidelines for indoor air quality. These include cooking solutions that attain Tier 5 on carbon monoxide emissions (≤ 3.0 g/MJ) and Tier 4 on PM2.5 (≤ 62 mg/MJ) emissions.

Pillar I: CAPACITY EXPANSION AT COMPETITIVE COSTS

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
Efficiently Rehabilitate, modernize and expand power generation, transmission and distribution capacity at competitive costs.	Total Installed capacity as at 2024: • Geothermal -940 MW • Hydro- 838 MW • Wind - 435 MW • Solar PV - 212.5MW • Biomass/Cogeneration - 2 MW • BESS – 0MWhr • Import – 200MW • Renewable Generation 83% (Installed)	Total Installed capacity as at 2030: • Geothermal - 1,824MW • Hydro-2,062 MW • Wind- 965 MW • Solar PV - 577MW • Biomass/Cogeneration – 133MW • BESS - 400MWhr • Import - 400MW • Clean Energy 100%	Increase generation capacity by: • Geothermal- 883.4MW • Hydro- 1,222 MW • Wind- 530 MW • Solar PV- 364 MW • Biomass/Cogeneration - 131 MW • BESS- 400MWhr • Import-200MW Increase power generation from clean energy sources from 83 % to 100% by 2030	• Total % share of clean energy generation capacity	• Increased clean energy share in national energy mix by 2030. • Reduced carbon emissions in the Grid (NDC - Net zero contributions)
	• Transmission Master Plan • Kenya Transmission and Distribution Grid Code 2021 • 9,484km of Transmission line • 12,410 MVA Transformation capacity • 99.9% availability of the transmission network • 4.5% Transmission losses	• Updated Transmission Master Plan by June 2026 • Updated Kenya Transmission and Distribution Grid Code by FY 2026/27 • 17,500km of Transmission line 24,410 MVA Transformation capacity • 100% availability of the national transmission grid (i.e., reduce incidences of national black outs to zero) • 3.5% Transmission losses	• Update Transmission Master Plan • Updated Kenya Transmission and Distribution Grid Code • Expand transmission network by 8,000km by 2030 • Increase transformation capacity by 12,000 MVA • Strengthen and modernize the transmission network by 2030 • Enhance system operation	• Approved Transmission Master Plan • Approved Kenya Transmission and Distribution Grid Code • Length of Transmission lines in circuit Km • % availability of the network • % reduction in transmission losses	• Stable and reliable power grid • Transformation Capacity in MVA • Constant availability of the network • • Reliable and efficient transmission grid • • Reduced transmission losses
	• Distribution Master Plan • 311,625 km of Distribution line • 9.8 Million Number of customers • 11.19% distribution losses	• Updated Distribution Master Plan • 524,562 Km of Distribution Line • 15 Million Number of customers by 2030 • 9.3% distribution losses	• Update Distribution Master Plan • Expand distribution network by 212,937km by 2030 • Increase the number of customers by 5.1 Million • Enhance the reliability and efficiency of the distribution system. • Increased transformation capacity	• • Approved Distribution Master Plan • Length of distribution network in circuit Km • % increase in the No of customers connected • % reduction in Distribution losses	• Increased access to electricity. • Reliable and efficient grid
Promote competitive energy procurement and pricing.	• Renewable energy auction policy • Existing revenue requirement pricing	• Operationalized renewable energy auction policy by 2025	• Operationalize the Renewable Energy Auction Policy. • Launch the first bid(s) of auction by 2027 • Review electricity tariffs every three years to ensure predictability, timely recovery and cost-reflective tariffs • Finalize the framework on operations and maintenance- rural connections (Social Programs)	• % of power projects procured through the auction	• Transparent, least-cost procurement of power • Timely cost-reflective tariffs

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
Mobilize funding for energy projects from public and private sources.	• USD 305 Million/year • Private 3Bn USD mobilised to date • Public sector 205 Million USD	• USD 18.73 billion by 2030 • Private 7.91 Billion USD • Public sector 10.82 Billion USD	• Explore and adopt viable, innovative and sustainable financing options from local and international sources by 2025 including but not limited to: PPP, CIF, Green Climate Fund, Asset Monetization • Local Equity Funds • De-risking instruments and guarantee • Grants • Operationalize Consolidated Energy Fund by 2026/2027.	• Volume of public and private investments mobilized (USD) • Operational Consolidated Energy Fund	• Reduced reliance on government funding for energy projects
Pillar II: LEVERAGE BENEFITS OF INCREASED REGIONAL INTEGRATION					
Commitment	**Current status/ Baseline**	**Targets**	**Action Plan**	**Output Indicators**	**Impact**
Enhance regional integration by investing in interconnections and promoting power trade.	• Draft local and regional power market rules, guidelines and procedures • 3 existing regional interconnectors (Ethiopia, Uganda and Tanzania) • Draft Open Access Regulations • Cross border electricity supply between Moyale, Sololo, Lungalunga, Sirare- Isebania,	• Operational local and regional power market rules, guidelines and procedures • Operational 400kV Kenya–Uganda interconnection • Operational Open Access, bulk supply and market regulations • 1000MW worth of regional power trade	• Complete and operationalize competitive local and regional power market regulatory framework, guidelines and procedures by 2027 • Complete pending transmission infrastructure, including the Kenya–Uganda interconnection by 2030 (400kV) • Expand cross-border electricity supply to underserved border towns and communities (target: Mandera, Takaba, Banisa, Rhamu, Sololo new towns) by 2030. • Finalize and implement the roadmap for transitioning to a competitive power market. • Establish and operationalize national power trading units by resourcing and staffing them. • Increase regional power trade capacity by 1000MW by 2030 • Actively participate in the Eastern Africa Power Pool (EAPP) by buying/selling power and providing wheeling services. • Build institutional capacity to support regional power trade. Strengthen institutional frameworks and coordination with EAPP Secretariat. • Complete and operational Open Access Regulations • Install and operationalize AGC & Develop and operationalise Ancillary Services framework	• Operational regional power market regulatory framework, guidelines and procedures • Operational Kenya–Uganda interconnection (400kV) • Increase in cross border power exchange • Power Market Transition Roadmap • Operational and resourced trading units • % Increase in power traded within the EAPP • Operationalized Open Access Regulations • Functional ancillary services market	• Enhanced energy security and power supply • Increased revenue from power trade and cross border power supply • Increased access to cheaper sources of power • Improved national and regional grid reliability, • enhanced power export capacity. • Transparent, efficient national and regional electricity market with structured trading and price discovery mechanisms. • Deepened regional integration and optimized use of regional generation resources. • Operational trading units established • Operational AGC • Increased integration of VREs

Pillar III: Clean and affordable last mile access

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
Achieving Universal Access to electricity by 2030, by connecting an additional 5.1 Million Households to give access to 15 Million households through on and off-grid solutions	• The number of connected households as at 2024 were 9,756,785. (KPLC domestic customers - 8.5 million, mini-grid - 110,000 households and standalone PV system - 1.2 million households)	• 5.1 Million additional Households by 2030	• Implement the Kenya National Electrification Strategy (KNES 2025) road map, which is based on the Least Cost Electrification Plan, as below- • Grid Densification: A total of 4,002,187 household connections are to be achieved through densification by Kenya Power. • Grid Intensification. A total of 567,917 connections are to be achieved through grid intensification by Kenya Power • Grid Extension. A total of 320,278 household connections are to be achieved via grid extension by REREC • Mini-Grids. A total of 199,048 households to be connected through mini-grids to be implemented by REREC and Private Sector • Standalone PV. 11,000 stand-alone PV systems meeting tier 2 specifications under SE4ALL's multi-tier framework for measuring energy access connecting 10,748 households. To be implemented by REREC and Private Sector	• 5.1 million additional households connected by 2030	• 15 million households connected • Universal access achieved
	• KNES technical committee in place • Existing Geospatial Planning Unit	• Electricity Access Committee by 2026	• Establish an Electricity Access Committee under Integrated National Energy Plan (INEP) to serve as the central coordination entity of KNES 2025. • Develop KNES implementation plan • Develop a Centralized Stakeholder Coordination Framework	• An Electricity Access Committee established	• Improved stakeholder coordination in KNES implementation
	• Existing GIS platforms	• Data access and governance framework for KNES	• Develop a Data access and governance framework to guide the data collection, management, sharing, and utilization by stakeholders to facilitate KNES implementation • Develop Data access and governance framework	• A Data access and governance framework developed	• Improved data access and governance in KNES implementation
	• Integrated National Energy Plan (INEP)Regulations in place	• Strengthen county level electrification Planning and Implementation	• To develop a County Energy Planning and Implementation Framework • Formalize Kenya Power's Institute of Energy Studies and Research (IESR) as the lead national training institution to offer structured capacity-building programs for county energy officers, planners, and technical personnel. • Develop a County Electrification Coordination Platform to facilitate data sharing, performance tracking, and joint planning between counties, national agencies, and private sector stakeholders.	• County Energy Planning and Implementation Framework • IESR formalised as the lead national training institute for counties capacity development on electrification planning and implementation • County Electrification Coordination Platform developed	• Strengthened county level electrification Planning and Implementation • • Enhanced involvement of the counties in electrification Planning and Implementation

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
	• Existing guidelines on mini-grids	• Operational mini-grids regulations	• Finalize, gazette and operationalize the mini-grid regulations	• An efficient approval framework for public and private sector mini-grids and renewable energy project developed	• Accelerated implementation of electrification projects • Enhanced public and private sector investment in mini-grids and hence increased access
	• Uniform tariff for public mini-grids	• To adopt a uniform national tariff scheme for grid and mini-grid connected customers for competitive procured mini-grids	• Adopt a uniform national tariff scheme for grid and mini-grid connected customers for competitive procured mini-grids	• A uniform national tariff scheme for grid and mini-grid connected customers adopted	• Accelerated implementation of electrification projects • Enhanced private sector investment in mini-grids and hence increased access
Achieving universal access to clean cooking by 2030 by transitioning 65.4 % of the population from traditional biomass cooking methods	• Kenya National Cooking Transition Strategy (KNCTS) Developed in 2024 • An action plan for KNCTS is under development and is expected to be completed by December 2025	• Bridge the supply gap for clean cooking solutions by 2030	• Establish a framework for transitioning public institutions as anchor demand points for clean fuels	• Framework for transitioning public institutions established	• Increased availability of clean cooking solutions
			• Develop a national clean cooking support facility focusing on supply side incentives.	• Clean cooking support facility developed	
		• Bridge the affordability gap for demand side by 2030	• Design and implement a national clean cooking fuel cross-subsidy scheme leveraging innovative financing mechanisms such as carbon financing, and clean impact bonds, consumer financing, among other sources of funds to close the affordability gap	• National clean cooking fuel cross-subsidy scheme implemented	• Increased demand of clean cooking solutions
		• Promote local manufacturing of clean cooking appliances by 2030	• Designate spaces for clean cooking appliance entrepreneurs within the Energy Centres and public special economic zones (SEZs) • Establish an assembly plant for clean cooking (e.g., e-cooking appliances in Kenya • Remove tariff barriers for clean cooking stoves and fuels	• All public special economic zones (SEZs) and the Energy Centres have spaces for clean cooking appliance entrepreneurs. • Number of local manufacturers established • Number of clean cooking appliances produced	• Increase in locally manufactured clean cooking appliances
		• Promote Production of local energy crops by 2030	• Stimulate the cultivation of energy crops for production of cooking fuels. • Promote and support private sector investment in setting up distilleries for fuel production from energy crops	• Increase in amount of locally produced cooking fuel from energy crops	• Increased availability of locally produced clean cooking fuels
		• Raise awareness on clean cooking across multiple stakeholder groups	• Create awareness among multiple stakeholder groups such as end users, financial institutions, investors and leaders, on clean cooking. • Implement the Behavior Change and Communication Strategy for Promoting Clean Cooking in Kenya (2022)	• Increase in awareness from 17% as at 2022 to 70% by 2030	• Increased awareness on clean cooking

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
		• Implement the Kenya National Knowledge Management Strategy for the Cooking Sub-sector in Kenya developed in 2023	• Develop guidelines and key performance indicators for the cooking sector • · Mainstream Clean Cooking into national planning processes (INEP and LTES) and other development sectors (health and environment) • · Develop and host the "single source of truth" (online knowledge hub/portal) for sector assets.	• Guidelines and key performance indicators for the cooking sector • Clean Cooking included in national planning processes • Online knowledge hub/portal developed	• • Enhanced knowledge management for the cooking sector
		• Strengthen coordination, planning and tracking	• Operationalize the clean cooking implementation unit by December 2026.	• A fully functional clean cooking implementation unit	• Increased uptake of clean cooking across Kenya.
	• Kenya National Electric Cooking Strategy (KNeCS) Developed in 2024	• Establish and operationalize the KNeCS Steering Committee	• Establish KNeCS Steering Committee to coordinate technical support and resource mobilization to strengthen the enabling environment including: • Boost R&D and local manufacturing • Training and capacity building • eCooking appliance quality standards • End-of-Life (EoL) management • Grid and off-grid investments	• KNeCS Steering Committee established and operationalized	• Conducive enabling environment for e-cooking
		• Undertake studies to validate innovative e-Cooking solutions for broader • market adoption	• Undertake pilots and studies to generate evidence that supports the scalability of e-Cooking including Institutional e-Cooking programmes, tax waivers on e-Cooking appliances, Solar & battery-supported e-Cooking and responsible use of carbon finance in e-Cooking	• Pilots and studies on: carbon finance in e-Cooking • E-Cooking Tariff Development. • Institutional e-Cooking programmes • Tax waivers on e-Cooking appliance • Solar and battery-supported e-Cooking	• Informed decision making on e-cooking
		• Bridge affordability and • access gaps for e-Cooking • solutions through market development activities.	• Roll out innovative financing mechanisms e.g through Results Based Financing (RBF) programmes. • Implement credit finance programs	• innovative financing mechanisms rolled out • Credit finance program in place	• Increased uptake of e-Cooking
		• Increase adoption of e-Cooking by 2030	• Implement the Behaviour Change and Communication strategy • Roll out activities to boost household adoption of e-cooking solutions and directly impact the use of e-cooking technologies.	• Increase adoption from 1.8% as of 2024 to 10% by 2030	• Increased uptake of e-Cooking
	31% of Households using LPG	50% of households using LPG by 2030	Distribution of subsidised 6kg cylinders to low-income households	Percentage of households using LPG	Access to clean cooking solutions
	• Bioenergy Strategy	• Implement the bioenergy strategy	• Establish and operationalize the Innovation Platforms • Comprehensive mapping of the country's bioenergy resources • Implement sustainable bioenergy feedstock production programs • · Establish an innovation hub for bioenergy	• Innovation Platforms established • Bioenergy resources mapped • Sustainable feedstock production achieved	• Increased use of bioenergy clean cooking solutions

Commitment	Current status/ Baseline	Targets	Action Plan	Output Indicators	Impact
			• · Develop fiscal and non-fiscal incentives to facilitate private sector involvement • Promote gender mainstreaming in clean cooking	• Innovation Hub established • fiscal and non-fiscal Incentives for private sector developed • Gender mainstreamed in clean cooking	
Promoting productive use of energy across grid, mini-grid and off-grid sectors to drive economic development	• National PUE Roadmap in place.	• Kenya National PUE Strategy developed and implemented •	• Finalize the Kenya National PUE Strategy by June 2026 and subsequent implementation. Focus areas of PUE strategy should include: • Demand stimulation for utilities and mini-grid through access to appliances and equipment for end users. • Accelerating uptake of PUE appliances and equipment across priority value chains through innovative financing mechanisms for end users. • Green industrialization leveraging direct geothermal resources, hydro, wind, and solar energy. • Regular Intergovernmental Committee (IGC) on PUE convenings to track progress of PUE Strategy Implementation	• Kenya National Productive Use of Energy Strategy developed and implemented. • Number of PUE facilities (commercial and non-commercial) established • Financial losses prevented through adoption of PUE	• Increased demand for electricity from household connections. • Increased access to productive use appliances and equipment across crucial sectors of the economy such as agriculture, health, trade and industrialization. • Increased incomes and enhanced economic wellbeing of end users of these PUE technologies

Pillar IV: Incentivize private sector participation to unlock additional resources

Commitment	Current Status /Baseline	Target	Actions	Indicator	Outcome/Impact
Provide fiscal and non-fiscal incentives to support private sector participation and enhance competitiveness in the energy value chain	• FiT • Tax incentives • REAP • PPP Act Cap 430 • Transmission master plan • Pilot PPP Transmission project under development • KNES • Resettlement Policy Framework and Land & crop compensation guidelines. • Development of Land Indexation Ongoing by Ministry of Lands	• Standardised PPAs & Procurement Guidelines adopted FY 2026/27 • TA support by 2026 • Gazetted Renewable Energy & FIT regulations FY 2025/26 • Competitive Procurement of Transmission PPP 2026/27 • Gazetted PPP Regulations FY 2026/27 • Expanded Fiscal Incentives on Power Infrastructure equipment FY 2026/27 • A PPP projects pipeline for transmission projects 2025/26 • Asset Monetisation and Recycling Project Screening and Suitability Assessment Study Report FY 2026/27 • Pilot Asset Monetisation and recycling for transmission lines 2027/28 • Gazetted mini-grid	• Development of standardised PPAs. • Develop Standardized procurement guidelines. • Contract Transaction Advisor (TA) to Support RE Auctions • Enhance concessional competitiveness in energy projects. • Finalise renewable energy & FIT regulations and guidelines. • Competitive Procurement of the private party for the transmission PPP • Finalise regulations under the PPP Act. • Fiscal incentives for power infrastructure • Screen and develop a project pipeline that distinguishes preferred procurement models for public and private sector present in the Transmission Master Plan. • Finalise Asset Monetisation and Recycling Framework in transmission lines. • Finalize mini-grid regulations • Finalize Solar Photovoltaic Systems Regulations	• Standardised PPA • Standardized procurement guidelines • Signed TA Contract • Launch of RE auctions by 2027 • MW under Renewable • Competitively procured PPP contracts • Energy & FIT regulations • PPP Regulations • Gazetted fiscal incentives of power infrastructure • PPP projects pipeline for transmission projects • Implementation of Asset Monetisation Study Report recommendation. • No. of private sector players Mini-grid regulations and No. of customers connected • No. of testing facilities commissioned	• Increased private sector participation in the energy sector • Fast tracking the development of energy infrastructure and access to energy • Job creation • Innovation and knowledge transfer

Commitment	Current Status /Baseline	Target	Actions	Indicator	Outcome/Impact
		regulations FY2025/26 • Gazetted Energy (Solar Photovoltaic Systems) Regulations 2025 FY 26/26 • 14 Testing facilities commissioned. FY 27/28 • Gazetted Open Access, Bulk Supply and Electricity Market Regulations FY 2025/26 • Resource funding for land and wayleave acquisition for infrastructure projects	• Testing facilities for solar systems in additional counties. • Finalise on the Open Access, Bulk Supply and Electricity Market Regulations	• Open Access, Bulk Supply and Electricity Market applications	
Facilitate innovative financing mechanisms and de-risking to accelerate private sector investment in the energy sector	• Existing liquidity support measures include ATIDI • Geothermal risk mitigation facility USD 33.7Mn • GSM Policy • Geo exploration and onsite drilling up to steam gathering • Data collection for Renewable energy resources and mapping ongoing • Wind, Solar, Geothermal & Small hydros resource maps available	• Increase access to more insurance schemes/value by 2030 • 50 Wells drilled by 2030 • 3X increase of Geothermal risk mitigation facility by 2030 • Approved GSM policy FY 2026/27 • Adopted Standardised LoS FY 2026/27 • Issue Green Bonds and/or Sustainability Bond by 2030 • Raise seed money to pre fund the project account FY 2025/26 • Energy Resource atlas/ maps FY 2026/27 • RE Integration corridors and substations study FY 2026/27 • Strategic ESIA FY 2025/26	• Support and facilitate GDC in geothermal drilling activities. • Scale up risk mitigation facilities for geothermal. • Scale up resources from insurance schemes. • Review and update GSM policy. • Update and develop standardised government support measures. • Green Bonds and Sustainability Bonds. • Establish and maintain a pre-funded project account covering an equivalent of 3 months for an IPT. • Update the Energy Resource (Solar, wind, small hydro, biomass/biofuels, cogeneration, WTE) assessment. • Identify target substations for optimal RES integration. • Strategic environmental and social impact assessment for generation.	• No. of wells drilled • Additional amount of Geothermal Mitigation facility • No. of Insurance schemes and/or added values • Approved GSM Policy • Standardised LoS • Bonds issued • Pre-funded project Account • Energy Resource atlas or map • RE integration study report • Strategic ESIA report	• Access to new financing mechanisms • • Increase in number of bankable projects • • Unlock more private sector investment in energy projects
Attract local capital for investment in energy projects and programs to enhance competitiveness	• Local Infrastructure Bonds (KenGen Bond) • Local currency PPA / Payments	• 5% of Total Investment requirement of the Compact by 2030 • Projects refinanced annually • Project pipeline FY 2025/26	• Facilitate and support Mobilization of local pension funds, Capital Markets, Saccos. • Promote refinancing of projects with Local funds. • Development of project pipeline for local financing.	• Amount raised from local funds • No. of projects refinanced • Project pipeline	• Reduce reliance on foreign capital. • Mitigate against foreign currency risks hence reduce the cost of Investment • Strengthen the capital markets and financial markets in Kenya
Facilitate and leverage carbon markets to enhance investment viability and competitiveness in energy investments and projects	• Climate Change Act (Cap 387A) and Climate Change (Carbon Markets) Regulations 2024 • KenGen participation in carbon markets	• Energy Projects Carbon finance guide FY 2026/27 • Emission reduction methodologies and tools FY 2027/28 • Projects listing 2025/26	• Prepare a guide for including and structuring energy projects as carbon finance projects. • Develop emission reduction methodologies and tools for priority carbon offset interventions/projects. • Support listing of carbon projects and programs at NEMA. • Enhance capacity of the public sector in carbon markets	• Energy Projects Carbon finance guide • Emission reduction methodologies and tools • No. of projects listed	• Access to innovative financing • Alignment of national goals (Environmental, economic and social)

Pillar V: Work toward financially viable utilities that provide reliable service

Commitment	Current Status /Baseline	Target	Actions	Indicator	Outcome/Impact
Continually monitoring the implementation of sector utility business and Investment strategies	• Implementation of Business Plans (KPLC, KenGen)	• Business Plan by FY 2025/2026	• Development and Implementation of Business and Investment Plans by all Utilities	• No. of Approved Business and Investment Plans	• Financially Viable Utilities • Increased operating efficiency • Profitability of the commercial Utilities
Regularly undertake cost of service studies and tariff reviews	• Cost of Service Study 2018	• Cost of Service Study Report by FY 2025/26	• Development of Cost-of-Service Study and implement the recommendations every 3yrs	• Implementation of Cost-of-Service Study Report recommendations	• Cost reflective tariffs
	• Tariff Review for 2026-2029	• Tariff Review Order by April 2026	• Issuance of Tariff Regimes every 3 years	• Gazetted Tariffs Schedule	• Cost reflective consumer tariffs; • Facilitation of socio-economic growth
Reduction of power system losses	• System losses 23% •	• Finalise System losses study Dec 2025 • All proposed measures implemented by 2029/30 • Target system losses by 2030 15%	• Finalise System losses study • Implement measures to lower the system losses from sector analysis and the study	• Reduction of system losses as per Tariff review schedule • System losses Study Report. • No. of measures implemented	• Financial viability of the utilities • Reduced price of electricity
Enhance competitive sourcing for financing energy programs and infrastructure projects	• KenGen has a procedure to source competitive financing for projects	• Approved guidelines and procedures FY 2025/26 • Catalogue of diversified financing & Innovative options FY 2025/26	• Develop a sector guideline on sourcing of competitive financing • All sector utilities to develop & implement procedures for competitive financing • Develop a catalogue of diversified financing & Innovative options	• Approved guidelines and Procedures • • Catalogue of diversified financing & Innovative options	• Reduction in the cost of development of energy infrastructure. • • Access to Innovative financing mechanism
Promote Diversification Projects and Partnerships	• KenGen Direct use projects • KPLC & KETRACO telecoms partnerships • KPLC & KenGen training school • Geothermal Consultancy & Project Execution • Technical Assistance	• Viable Project Pipeline FY 2025/26	• Market scoping & feasibility to identify viable projects • Develop a framework for engagement of Geothermal Direct Use Investors • Projects pipeline • Bidding for projects	• Viable Project Pipeline	• Financially viable utilities - Increased revenues • Job creation
Demand Stimulation	• Time of Use Tariff • Special Tariff for E-mobility and SEZs • Green Hydrogen Strategy and Roadmap • National E-mobility policy, 2025 • 137 EV Charging stations	• Time of Use Tariff and special tariffs 2025/26 • Operationalise rebates scheme FY 2025/26 • Commence issuance of green certificates by FY 2025/26 • Technical specifications	• Review the Time of Use Tariff to reach more consumer categories • Introduce a special tariff for E-cooking • Introduce a rebates scheme • Marketing of clean energy to attract more manufacturers • Technical assistance to EPRA to operationalise the issuance of green certificates for Green/sustainable projects	• Uptake of the Time of Use tariff and Special tariffs for different categories • Rebates scheme • Turnaround time for issuance of green certificates • Technical specifications study report • - Number of pilot hydrogen production projects launched • - Volume of green	• Increased demand • Increased efficiency • Competitiveness of manufactured commodities in the country • - Validation of green hydrogen technologies and applications in Kenya's context • - Increased investor and industrial confidence in hydrogen viability • - Accelerated

		and standardisation study Fy 2025/26 • Implementation of the Green Hydrogen Strategy/Green Hydrogen project 2027/28 • EV Charging Infrastructure roll out 2025/26 • EV codes and technical standards FY 2025/2026 • 10,000 EV Charging stations FY 2030	in the country • Launch pilot projects in key regions to test hydrogen production and demonstrate industrial uses such as green ammonia, steel, cement, and fuel switching in industrial zones. • Establish appropriate de-risking mechanisms such as Viability Gap Funding, sovereign guarantees, and blended finance instruments • Development of charging infrastructure and charging stations • Finalization of standards that that promote interoperability across every county • Development of EV charging stations across the country	hydrogen produced (tons/year) • - Number of industrial applications piloted (e.g., ammonia, cement, steel) • Number of charging stations • Codes and standards documentation • No of EV Charging Stations	decarbonization of hard-to-abate sectors in Kenya • Increased demand and revenue collection by utility • Reduction of carbon emissions • Increased interoperability of charging equipment
Improve Utilities operational efficiencies	• Infrastructure development, upgrades and reinforcements • Implementation of an asset management system for a number of critical substation equipment • High staff turnover and natural attrition	• Standardised Technical specifications 2025/2026 • 20% implementation of asset management system in the national grid FY 2030 • Monitoring of the Succession plans & retention plan FY 2026	• Develop standardised technical specifications for transmission and distribution • Special procedures/ exemptions for critical Infrastructure procurement • Formulate and operationalise asset management system for generation, transmission and distribution • Enhance HR Instruments to promote staff retention and skills-based benefits	• Technical specifications and standardisation report • Skills assessment & retention monitoring report • % of power system equipment integrated with asset management systems	• Financial viability of the utilities • Reduced operational costs
Leveraging on existing asset base to enhance liquidity for Business Development	• Large utility owned Asset base	• Liquidity Improvement options study 2025/26	• Analysis on options to raise additional funds using existing assets (Monetization, Securitization, Tokenization)	• Implementation of liquidity improvement report recommendations	• Enhanced liquidity
Centralised and standardised data collection and management system	EPRA statistics report	Data Collection and management framework. FY 25/26 Centralized data repository FY 26/27 Operational Data management system FY 27/28	Development and implementation of data collection and management framework. Development and operationalization of data collection and management repository and system. Resourcing and capacity building for the operationalization of the data management system.	Data Collection and management framework. Centralized data repository Data management system	Sector sustainability Enhanced utility efficiency Data driven policy decision making
Mainstreaming gender equity in the energy sector	Gender in Energy Policy 2019 15% Women engaged	Reviewed Gender in Energy Policy FY 25/26 30% increase in the number of	Review and launch of the Gender in Energy Policy by FY25/26 Implement the Gender in Energy Policy plan and	Gender in Energy Policy Achieved Gender in Energy Policy plan milestones	Increase in the ratio of men to women engaged in the energy sector

	in leadership positions in the energy sector	women engaged in leadership and technical positions in the energy sector FY 28/29	M&E framework by FY26/27 Establish Gender units in the Ministry and SAGA's by FY 26/27 Engage private sector representation in the Gender committee by FY 26/27 Develop gender mainstreaming guidelines for the private sector by FY 26/27 Develop a STEM female talent program for the energy sector by FY 26/27 Develop a gender mainstreaming awareness program for men in the sector by FY 26/27	% increase in number of women engaged in leadership and technical positions in the energy sector (private and public) Private sector gender mainstreaming guidelines % increase in female involvement in STEM in the energy sector	
Institutional Strengthening and Capacity Building	Capacity building initiatives in the Sector Exchange Programs & Peer learning	Sector Skills and gap analysis report FY 2026/27 Upskill workforce by 2030	Undertake sector skills and gap analysis Implement the Skills gap analysis recommendations 2027/28 Implement Young Professionals programme	No. of employee upskilled No. of staff onboarded as per identified skill set requirement. No. of young professional engaged	Well-equipped and highly skilled workforce Improved efficiencies of the Institutions

3. Country and Sector Overview

3.1. Overview of the GDP and Demography

In 2024, Kenya's real Gross Domestic Product (GDP) grew by 4.7 per cent, compared to a revised growth of 5.7 per cent in 2023. The growth was noted in most of the sectors of the economy with Agriculture, Forestry and Fishing growing by 4.6 per cent compared to 6.6 per cent growth in 2023. Nominal GDP increased from USD 116.3 billion in 2023 to USD 125.5 billion in 2024 out of which Agriculture, Forestry and Fishing contributed 22.5 per cent, an increase from 21.5 per cent in 2023.

Historically, population size and urbanization rate have shown a positive correlation with electricity usage in domestic, small commercial and street lighting customer categories. Kenya' s population in 2024 was estimated to be 52.4 Million with an average household size of 3.9.

3.2. Sector Institutional Structure

Kenya's energy sector is governed by the Energy Act Cap 314. It succeeded the Energy Act 2006 which was grounded on Sessional Paper 4 of 2004 that unbundled the power sector. The Ministry of Energy and Petroleum (MoEP) handles policy, planning and oversight while the Energy and Petroleum Regulatory Authority (EPRA) undertakes technical and economic regulation of both energy and petroleum subsectors. The Energy and Petroleum Tribunal adjudicates and arbitrates disputes referred to in the energy and petroleum sector.

Electricity generation is undertaken by KenGen and various Independent Power Producers (IPPs) under Power Purchase Agreements (PPAs) with Kenya Power and Lighting Company (KPLC) as the sole off-taker. KPLC also distributes power and manages pre-2006 transmission assets up to 220 kV.

The Geothermal Development Company (GDC) was created to fast-track geothermal development by drilling and partnering with power producers via Project Implementation and Steam Supply Agreements (PISSAs).

Kenya Electricity Transmission Company (KETRACO) is responsible for developing, maintaining and operating all new 132kV and above transmission infrastructure. The Nuclear Power and Energy Agency (NuPEA) manages nuclear energy development and capacity building, while the Rural Electrification and Renewable Energy Corporation (REREC) promotes rural electrification and renewable energy.

In addition to the main utilities, we have Mini-grids, developed by both public and private sectors, supply power to off-grid communities through localized networks and Captive power generation, favoured mainly by commercial and industrial users.

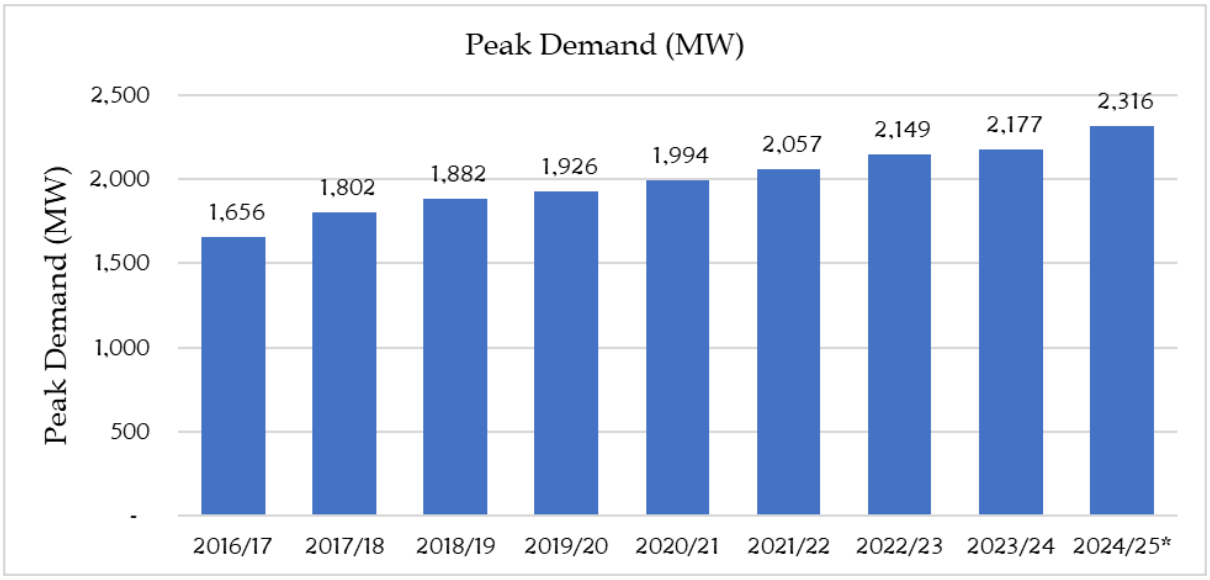
Energy planning in Kenya is central to the sector's energy development. It focuses on least cost power development of electricity generation and transmission. Due to the focus on electricity planning, other energy sub-sectors such as petroleum, renewable energy, clean cooking, bioenergy and energy efficiency are not adequately incorporated into the energy sector planning. The Energy Act introduced the Integrated National Energy Plan (INEP) which will incorporate all these sub-sectors that have been left out. The INEP requires collaboration between the National and County Governments among other stakeholders in energy planning and the Constitution provides for County Governments to undertake energy planning.

3.3. Trends in Power Supply and Demand

Trends in Power Demand

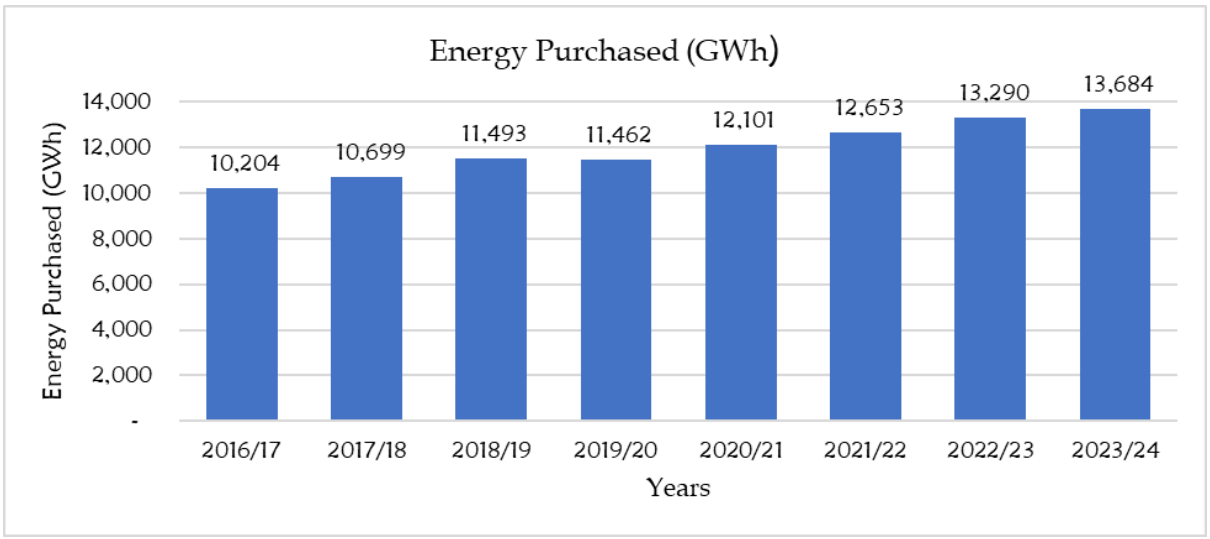
The country's peak demand has been growing over time and currently stands at 2,316 MW as of February 2025. In the FY 2023/24, electricity sales grew to 10,516 GWh from 10,233 GWh in 2022/23, a 2.8% growth. The energy purchased grew to 13,684 GWh in 2023/24 from 13,290 GWh in 2022/23 representing a 3% growth. The number of customers connected to the national grid which currently stands at 10 Million grew from 9,212,754 in 2022/23 to 9,660,005 in 2023/24, representing a 4.9% growth.

Figure 1: Peak Demand Growth



Source: Kenya Power Annual Reports

Figure 2: Energy Purchased Growth



Source: Kenya Power Annual Reports

Trends in electricity supply

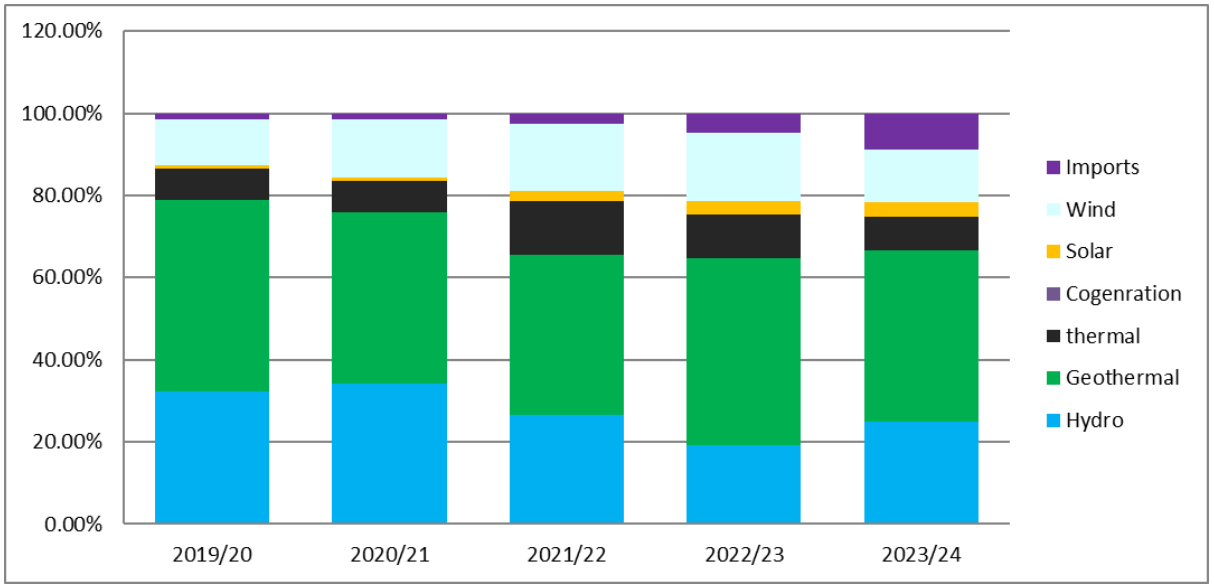
Kenya's effective installed (grid-connected) electricity capacity as per December 2024 stood at 3192MW. KenGen, which is the largest electricity generator in the country, accounts for 1,779MW of total installed capacity with a further 50MW of capacity installed by REREC at Garissa solar. The Independent Power Producers (IPPs) account for 1,163MW of capacity with a further 200MW being imported from Ethiopia. The capacity mix was composed of 26% hydro, 18% Thermal, 29% geothermal, 14% wind, 7% solar, and 6% Imports. Captive Power capacity has been growing and stands at 575 MW in December 2024.

Isolated grid generation under the Rural Electrification Programme (REP), implemented by REREC and Private Mini-grid owners, accounted for 52MW while Captive power capacity, which mainly comprises biomass, solar and hydro, stood at 574.6 MW, accounting for 15.04% of the country's total installed capacity.

Geothermal has been the leading contributor to the generation mix, maintaining a range between 39.15% and 46.69% over the years. Hydropower generation has been notably affected by the vagaries of weather, declining from 32.22% in 2019/20 to a low of 19.33% in 2022/23 before recovering to 24.81% in 2023/24. Thermal generation peaked at 13.02% in 2021/22 before subsequently declining, while wind power experienced steady growth—peaking at 16.57% in 2022/23 and then dropping to

13.01% in 2023/24. Solar energy has gradually increased, reaching 3.46% in 2023/24, and electricity imports have surged significantly from 1.40% in 2019/20 to 8.76% in 2023/24.

Figure 3: Generation Contribution over the years.



Source: Kenya Power Annual Reports

3.4. Transmission and Distribution

Kenya's electricity transmission network covers 9,484 circuit km at 132 kV and above voltage levels as at December 2024. This comprises 1,282 km of 500kV, 2,623 km of 400kV lines, 2,152 9 km of 220 kV lines and 3,427 km of 132 kV lines. The transmission network consists of 111 transmission substations with a transformation capacity of 12,410 MVA.

The distribution network covers 311,625 circuit km from 0.24kV to 66kV voltage levels as at June 2024 with a transformation capacity of 15,149MVA.

3.5. Regional Integration

Kenya is an active member of the Eastern Africa Power Pool (EAPP). The EAPP is advancing regional power integration through major transmission and generation investments. Kenya is currently connected to Uganda via a 132kV AC line, Ethiopia asynchronously via an HVDC link and Tanzania through the 400kV interconnector. Development of the 400kV Lessos-Tororo line will be completed by 2030. It is expected that the broader Kenya–Tanzania–Zambia interconnection will allow bidirectional energy trading with the Southern Africa Power Pool (SAPP).

These interconnections will be increasingly valuable with the rising share of intermittent renewable energy, enhancing security and stability of power supply, increase access to cheaper power in the region, optimize utilization of energy resources and enhance income generation through power trade.

Cross-border power exchanges are already occurring, especially in border towns such as those between Kenya and Ethiopia. To support power market development, the EAPP has developed market design, rules, agreements and a trading platform, targeting to launch a regional day-ahead electricity (DAM) market in September 2025.

3.6. Electricity Access

Electricity access in Kenya has significantly improved over the past two decades. Government-led initiatives and private-sector participation, through innovative business models and adoption of renewable energy technologies have driven these improvements. In 2018, the Government formulated the Kenya National Electrification Strategy (KNES) which provided a roadmap to universal access to electricity. The electricity access rate has increased from 29% in 2013 to the current 75% with

90% and 68% access in urban and rural areas respectively from grid and off-grid solutions. The length of the distribution network has increased over time to meet the growing demand for electricity in Kenya.

As of 2024, the number of domestic customers connected to the national grid stood at 8.5 million with the number of households served by a mini-grid at 110,000 and the number of households with a standalone PV system at 1.2 million. Therefore, the estimated number of households with direct access to electricity services was 9.75 million out of a total of 13.4 million households. According to KNBS projections, the estimated number of households will be 15 million in 2030. Therefore, at least 5.1 million households will need to be connected to achieve universal access by 2030.

3.7. Clean Cooking Access

According to KNBS 2023-2024 Housing Survey Report, the access to clean cooking in the country stood at 34.4% with e-cooking at 1.5%, biogas at 0.4%, LPG at 30.7%, and bio-ethanol at 1.8%. The estimated population with access to clean cooking in urban and rural areas stood at 71.5% and 11.1% respectively. Over 80,000 institutions rely on firewood as the primary cooking fuel. In addition, the Household Air Pollution Strategy, 2024 indicates that over 26,000 deaths occur annually, attributed to illnesses related to household air pollution.

There are emerging clean cooking solutions that include solar cooking, green hydrogen, geothermal direct use, and bio-methane. The vast solar radiation coupled with innovative new technologies such as phase change materials for thermal storage and Direct Current e-Cooking appliances can be used for solar thermal and solar electric cooking in the country. Bio-methane technology is considered as an alternative to conventional LPG, since it reduces carbon emissions and reliance on fossil fuels.

3.8. Productive Uses of Energy

As of June 2025, the national peak demand for electricity stood at 2,316 MW which was a 27% increase from 2018 indicating a steady. During the same period, KPLC's customer base grew from 6.7 million to 9.8 Million which translates to a 44% customer growth. This mismatch indicates an opportunity for stimulating demand for grid connected customers as well as mini-grid users and customers living without access to electricity. Using energy productively will not only lead to increased revenues for utilities but also contribute to economic development across the country.

Reliable and affordable clean cooking devices remain limited despite widespread grid access. The government seeks to promote productive use of energy. The E-mobility Policy highlights e-mobility as an opportunity for increased demand for electricity with an additional 415MW required to adequately support e-mobility uptake over the next 5 years, part of which could be used to offset electricity venting at night with potential to balance load curve. The charging infrastructure for EVs in Kenya is still in its early stages, with approximately 137 EV charging infrastructure (both battery swapping stations and EVCS), predominantly situated in urban centres. The Government of Kenya is looking to deploy 10,000 EV charging stations in the country by 2030

In 2023, the Ministry of Energy and Petroleum adopted the National Roadmap for Scaling Productive Use of Energy (PUE) which recognizes the value of renewable energy powered appliances and equipment such as solar, wind, biogas, and biofuel powered irrigation systems in increasing agricultural productivity, reduced post-harvest losses through refrigeration, cold chain, and drying, and enhanced value addition from milling and agro-processing. This roadmap set the scene for the formation of the Inter-Governmental Committee on PUE which was established in 2024 to facilitate the identification of barriers and opportunities for scaling PUE in Kenya.

3.9. Financing

Presently, the energy sector is financed through the Government's budgetary allocations, development partners and private sector initiatives. Electricity access in Kenya has significantly improved over the past two decades this has been due to various Government-led initiatives and private-sector participation, through innovative business models and adoption of renewable energy technologies. There are small private generators and retailers who supply customers within their business areas and also licensed mini-grid operators serving customers off the grid.

Kenya aims to attract both local and international investments by fostering public-private partnerships, leveraging on green financing mechanisms, and encouraging innovation. Promotion of private sector investment in new business models for household appliances, electric mobility, water pumping and cottage industries. There is also a need for investment by the Government and private sector in research and development, pilot projects, and capacity-building programs which will accelerate the adoption of innovative energy solutions.

3.10. Private Sector Participation

The Kenyan Government is committed to fostering a credible, fair and transparent energy sector by ensuring that all obligations under the existing and future PPAs are met. To enhance the country's energy security and develop a framework for transparent

engagement with Independent Power Producers, the Government placed a moratorium on the onboarding of new PPAs. This would ensure the long-term viability and sustainability of the sector by streamlining supply/demand balance.

The government is in the process of lifting the PPA moratorium having developed the requisite frameworks to support sustainable engagement of the private sector. These include the energy auction policy, gazettement of indicative tariffs and reviewed FIT Policy.

3.11. Opportunities and Challenges

Pillar I: Capacity Expansion and Competitive Costs

Kenya's energy sector offers significant opportunities to drive socio-economic growth through strategic exploitation of its vast renewable energy potential. The country's untapped geothermal resources can provide reliable baseload power, support green industrialization, and reduce carbon emissions. Large hydropower sites can be transformed into multi-purpose reservoirs for power generation, irrigation, and grid-stabilizing pumped storage, while small hydro plants can enhance local energy access and voltage support. Solar and wind energy can be sustainably integrated to conserve hydropower and accelerate electricity access through off-grid and hybrid systems. Transitioning thermal plants from heavy fuel oil to natural gas offers a cleaner interim solution. Kenya's technical expertise in geothermal development, transmission, and distribution infrastructure, along with advanced electricity planning tools, positions it to provide consultancy services regionally and globally. Rising demand from government connectivity programs, electric mobility, e-cooking, and data centres creates a market for modernizing transmission and distribution infrastructure using smart grids and grid-enhancing technologies to improve reliability and reduce losses. Legal, fiscal, and regulatory frameworks, combined with diverse financing models like public-private partnerships (PPPs), green financing, and climate funds, further support cost-competitive energy development.

However, challenges persist. Less than 10% of Kenya's renewable energy potential is utilized, with large projects like geothermal and hydropower requiring significant capital and long development timelines. Hydropower is vulnerable to climate variability, and variable renewable energy sources like solar and wind cause grid instability, necessitating thermal plants for stability, which conflicts with emission reduction goals. The absence of a regulatory framework for ancillary services hinders renewable integration. Inadequate stakeholder collaboration and a lack of centralized data repositories weaken integrated energy planning. Transmission and distribution infrastructure face issues like insufficient capacity, high technical and commercial losses, vandalism, and delays due to land acquisition challenges. Multiple levies increase end-user tariffs, while limited access to favourable financing slows renewable energy and infrastructure development.

Pillar II: Leveraging Regional Integration

Kenya's participation in the Eastern Africa Power Pool (EAPP) and its shift to a competitive wholesale electricity market present opportunities to enhance regional energy integration. The transition offers access to technology and financial services markets, regional expertise for peer learning, private sector investment, and expanded power supply to cross-border towns. However, limited technical capacity for market operations and constrained transmission infrastructure restrict the full realization of these benefits, particularly in implementing the regional power market.

Pillar III: Clean and Affordable Last-Mile Access

Kenya is well-positioned to scale clean and affordable electricity access, driven by abundant renewable resources evident in the country's energy mix, government commitment to universal access, and a vibrant private sector in distributed renewable energy (DRE). The vast grid network coverage so far achieved, presents an opportunity for optimizing on the number of unconnected households within the network coverage. Consequently, the country's journey towards universal access coverage will be anchored on grid densification, intensification and extension to connect nearly 96% of the unaccessed population. Further to this, there is an opportunity to reach population clusters located beyond the grid coverage through minigrids and standalone solar systems. Programs like the Kenya Off-Grid Solar Access Project (KOSAP) and Last Mile Connectivity Program have expanded access through grid densification, mini-grids, and solar home systems, supported by mobile-enabled Pay-as-You-Go (PAYGO) models. Kenya leads in off-grid solar markets, with a robust ecosystem of technology providers and financiers. In clean cooking, opportunities exist to tap global funding and scale e-cooking through innovative financing like carbon finance and green bonds. Local manufacturing of clean cooking solutions is growing, creating jobs and export potential. Productive use of energy in agriculture, green industrialization, and e-mobility offers significant potential for job creation and economic resilience, supported by government initiatives like special economic zones and a growing e-mobility sector.

Challenges to last-mile access include high electricity supply costs, particularly in rural areas, and unaffordable connection fees for low-income households. Limited government funding slows grid expansion, while high financing costs for off-grid solar and productive use equipment exacerbate affordability issues. Clean cooking uptake faces barriers like policy gaps, affordability, cultural practices, and weak supply chains. Productive use of energy is hindered by affordability, low consumer awareness, and underdeveloped business models, with the lack of a national framework limiting its economic impact. Addressing these challenges requires coordinated efforts across government, private sector, and financial institutions to enhance affordability, financing, and awareness.

Pillar IV – Incentivize private sector participation to unlock additional resources

The landscape of renewable energy development presents a mix of promising opportunities and formidable challenges. On the opportunity side, there is growing support from donors and multilateral organizations eager to provide blended finance and guarantees, creating a more favourable environment for investment. Additionally, the implementation of energy auctions and open access policies is capitalizing on the declining costs of renewable energy technologies, making them increasingly competitive. Furthermore, the development of de-risking instruments is paving the way for greater private sector participation, offering mechanisms to mitigate financial uncertainties and encourage investment in sustainable energy projects.

However, significant challenges persist. The financial viability of off-taker remains a concern, undermining private sector confidence in the reliability of long-term power purchase agreements (PPAs). Grid infrastructure constraints pose another hurdle, particularly in remote areas, where the ability to integrate new generation capacity from renewable sources is limited. The process of acquiring land permits and securing social licenses from local communities adds layers of bureaucratic complexity and uncertainty, often stalling project development. Additionally, the lack of tools and methodologies to effectively participate in carbon markets hinders the ability to capitalize on this growing opportunity, leaving potential revenue streams untapped. Together, these challenges underscore the need for strategic interventions to unlock the full potential of renewable energy development with private sector participation.

Pillar V – Work toward financially viable utilities that provide reliable service

The energy sector is poised for growth, bolstered by several promising opportunities. Many utilities have already developed comprehensive business plans and standardized technical specifications, showcasing a reservoir of expertise within the industry. A robust Energy Act clearly delineates the roles and responsibilities of various energy sector institutions, including the energy regulator, providing a strong legal framework. The availability of skilled personnel enables the sector to handle diverse operations and pursue consultancy opportunities as a means of business diversification. Additionally, a robust fiber optic network integrated into existing and planned transmission lines opens avenues for increased fiber leasing business. The sector benefits from a strong institutional reputation and productive relationships with development partners, further enhanced by regulations, policies, and strategies designed to attract investors. Efforts toward institutional strengthening and improved governance further solidify the foundation for progress.

Despite these opportunities, the sector faces significant challenges. A lack of structured business planning, institutional accountability, and good governance undermines operational efficiency. High turnover of skilled staff, driven by inadequate retention policies, weak institutional capacity and lack of centralised and structured data collection and management systems. Lengthy procurement processes for critical spare parts disrupt operations, while delays in consumer tariff reviews create financial strain. The absence of standardized technical specifications for developing transmission and distribution infrastructure hampers progress. Aging and inadequate infrastructure contributes to increased system losses, and a non-uniform demand profile complicates efforts to balance supply and demand. These challenges highlight the need for strategic reforms to ensure the sector can fully capitalize on its potential.

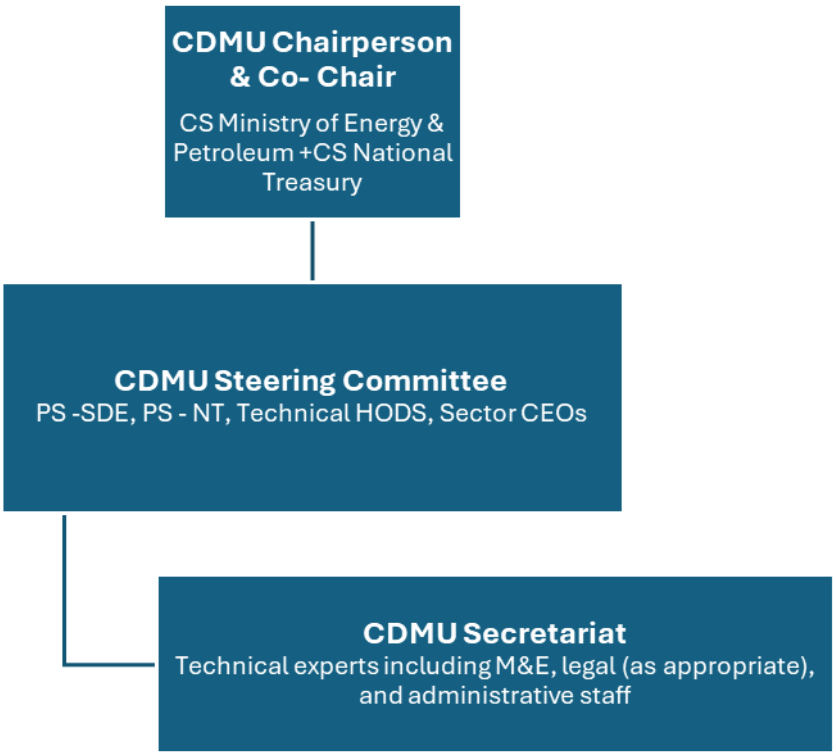
3.12. Risk Mitigation

Category	Risk	Mitigation
Financial risks	- Foreign Currency fluctuations - Increase in Country's contingent liability - Country credit rating	- Hedging- Local currency denominated PPAs - Local Capital Mobilisation - Diversify risk mitigation facilities including Insurance and consolidated energy fund - Public Financial Management Reforms - Treasury Single Account
Technical risks	- Grid constraints due to increased VREs - Lack of tools and methodologies to effectively participate in carbon markets	- Grid modernization - Capacity building, development of carbon finance guidelines and technology transfer
Institutional risks	- Silo system of licensing, operation and regulations - Various licensing and permitting procedures by different Entities - Inadequate Human Capital	- Establish one-stop shop for energy sector licensing and permitting - Online applications and processing of licenses - Development and adoption of a human capital succession plans. -
Environmental risks	- Delays in Land Acquisition for energy infrastructure - Climate change impacts on hydropower availability	- Awareness on documented procedures on land access and acquisition across different land tenure, as well as effective community engagement - Diversify energy mix and incorporate infrastructure to achieve climate resilience
Social Risk	- Low consumer adoption of clean cooking and PUE technologies	- Implement behaviour change strategies, provide demand-side subsidies and enhance awareness campaigns

4. Implementation and Monitoring of Compact

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 unit with a direct reporting line to the [Head of Government] with sufficient authority and mandate to coalesce the different ministries and agencies towards implementing the compact action plan. The CDMU will be chaired by [President's Advisor/Head of PDU/Minister of Finance/Minister of Energy] who has the authority to mobilize support from various parts of the government for implementation of the compact. The CDMU will have representation from key implementing ministries including from ministry of finance and planning, the ministry of energy, and – as appropriate – from utilities, regulatory bodies and other relevant agencies [and where relevant, private sector and civil society partners]. The CDMU will proactively facilitate inter-agency coordination and ensure fast response to emerging challenges. This dedicated unit will be supported by the Government's budget as well as by development partners for the implementation of its work plan and monitoring activities.

4.1. Proposed CDMU Structure



5. Annex

5.1. Annex I: Energy Sector Statistics

Pillars	Metrics /Indicators	Data (latest available)
Pillar I: CAPACITY EXPANSION AT COMPETITIVE COSTS	**Generation capacity installed/available** (MWs) (As at 31st December 2024[2] less waste heat recovery and captive power) Average annual growth rate (%) (of last three years)	**3,237 MWs Installed** • Hydro -25.94% • Geothermal - 29.043% • Thermal -18.716% • Wind - 13.47% • Solar - 6.60% • Bioenergy - 0.06% • Imports-6.18% **2.8% Growth rate**
	Energy produced annually (MWhs) – Total Average annual growth rate (%) (of last three years)	**13,684GWhr** Thermal -8.24%, Renewables - 82.99%, Imports 8.76% **Annual growth rate: 4.19%**
	Energy imported annually (MWhs) – Total · Average annual growth rate (%) (of last three years)	· **1,199,324 MWh** · 83%
	Energy exported annually (MWhs) – Total · Average annual growth rate (%) (of last three years)	· **4,2804MWhr** · 40%
	Transmission network (HV,) – Total: length (KM); voltage (KV):	· **Total HV: 9,484 km[3]** · 500 KV DC - 1,282kM · 400 kV AC - 2,623 km · 200kV AC -2,152.9km 132kV AC - 3,427km;
	· **Transmission transformation capacity (HV)**	**HV substations: 111No.** · Capacity: 12,410MVA
	· **Capacity Expansion Costs**	· **Generation - US$ 8.2 billion** · **Transmission - US$ 4 billion** · **Distribution - US$ 0.8 billion**

[2] https://www.epra.go.ke/sites/default/files/2025-03/Bi-Annual%20Energy%20%26%20Petroleum%20Statistics%20Report%202024_2025.pdf

[3] Energy policy 2025

	Distribution network (LV) – Total: length (KM); voltage (KV):			· **66kV - 1,313km** · **33 kV: 39,940 km** · **11kV - 44,959km** · **0.4kV/0.24kV - 225,413km**
	Distribution transformation capacity			· 15,149 MVA
	Access to energy (electricity and clean cooking)			· Access to electricity 75%[4] - Access to clean cooking 34.4%
	Number of on-grid connections (by customer type[5])			
	Category	**2022**	**2023**	**2024**
	Domestic	8,455,550	8,738,510	9,167,592
	Small Commercial	440,284	449,148	465,613
	Commercial and Industrial	3,894	4,136	4,017
	Street Lighting	19,712	20,960	22,741
	Electric Mobility	N/A	N/A	42
Pillar II: Regional Integration	**Transmission Interconnectors** (HV) – Total: length (KM); voltage (KV): transfer capacity (MW/MVA)			· Kenya-Tanzania: 400 kV, 192 km, 3,000 MW · Kenya-Ethiopia: 500HVDC, 1,282km, 2,000MW · Kenya-Uganda: 132kV, 126km, 140MW
	· Energy traded in bilateral power purchase agreements/MOU			· Import - 1,199,324, MWh · Export - 42,804MWhr
	· Energy traded in power pool			· N/A
	· Transmission wheeling charges (USD per kWh)			· **N/A**
Pillar III: DRE/Clean cooking	Number of new mini grid connections (by customer type) in the last 3 years.			
	Category	**2022)**	**2023**	**2024**
	Commercial	558	408	414
	Residential	21,510	10,782	11,272
	Street lighting	31	15	3
	Total	22,099	**11,205**	**11,689**

[4] Kenya National electrification Strategy 2025 projection

[5] https://www.kplc.co.ke/storage/01JDRPZS8NZ473CWE2XCSQ1REJ

	Number of solar home systems	Total No. 1,200,000
		Kenya Off-grid Solar Access Project (KOSAP) - 178,598
	Access to clean cooking	Households with access to clean cooking: 4.8 Million
Pillar IV: **Incentivize private sector participation to unlock additional resources**	1. Private sector investment in - Generation - Transmission - Mini Grids - Solar home systems - Clean cooking	Total Installed Capacity: 3192MW Installed capacity by Private Sector - 1,163MW Total Length of Transmission Lines – 9,484km Length of Transmission Lines by Private Sector — Nil Total Installed Capacity in Mini grids – 52MW Total Installed Capacity in Mini grids by Private Sector – 7.4MW Total number of Solar Home Systems - 1.2 Million Number of Solar Home Systems by Private Sector - 1.2 Million
Pillar V: **Work toward financially viable utilities that provide reliable service**	1. Utility financial profitability (Audited accounts, amount of exchequer support reduction) 2. System losses 3. Revenues from diversification	KPLC 2023/24 Profit after tax – KES 30 Billion KenGen 2023/24 Profit after tax – KES 6.8 Billion Total Power System Losses June 2024 – 23.16% KPLC Revenue Diversification – KES 1,084 Million KenGen Revenue Diversification – KES 79 Million KETRACO Revenue Diversification – KES 280 Million

5.2. Annex II: Ongoing Projects/Activities Supported By Development Partners and Government

S/N	Development Partner	Project Name	Timeline	Project Description	Funding (including from the Private sector) MUSD	Contribution to Compact Targets			Relevant Pillar(s) & Binary Targets
						Access to Electricity (people or connections)	Access to Clean Cooking (households)	Renewable Energy Installed (KW or KWp	
1.	AFDB	Kisian – Maseno (Luanda) 33KV Interlink, 33KV Kibos Feedouts and Miwani Substation	Aug 2024-Dec 2025	Construction of 16 km 33kV interlink between Maseno and Kisian, 33kV line bays at Kibos, Miwani & Ahero Substations	2.068	Electricity access in Western region	N/A	N/A	Pillar 1
2.	AFDB	Awendo and Ndhiwa 132/33kV Stn 33kv Line bays, Migori, Homabay, Oyugis Substation 33kV Feed outs	Aug 2024-Dec 2025	Construction of 33 kV line bays and feeder outs at Awendo, Ndhiwa, Homabay & Oyugis Substations	2.896	Electricity access in Western region	N/A	N/A	Pillar 1
3.	AFDB	Thika Road–Ruai 66kV and 33kV Kenyenya 33kV Feed outs	Aug 2024-Dec 2025	Construction of 17 km of 66 kV Ruai-Ex Thika road stn, and 33kV feeder outs at Kenyenya switching station	2.536	Electricity access in South Nyanza and Nairobi Region	N/A	N/A	Pillar 1
4.	AFD & GoK	Hybridization of Diesel Mini-Grid stations.	Jan 2024-Sept 2025	Design, Supply, Installation and Commissioning of Diesel- Solar Photovoltaic Hybrid Plants for Eldas, Elwak, Merti and Habaswein Power Stations to install 2.5MW	13.8	Electricity access in Isiolo, Marsabit & Wajir Counties.	N/A	N/A	Pillar 3
5.	AFD & GoK	Hybridization of Diesel Mini-Grid stations	Procurement ongoing	Design, Supply, Installation and Commissioning of Diesel- Solar Photovoltaic Hybrid Plants for Wajir Power Station -8MW	17	Electricity Access to residents of Wajir County	-	-	Pillar 3
6.	World Bank	Mini-Grids Installation in underserved counties	May 2025-Sept 2026	Design, supply & Installation of 115No Photovoltaic Generation plants 9.98MW Capacity with associated power distribution network (Mini-grids) complete with 7years operations & maintenance	85	Electricity Access 60,000 Households in 14No Counties.	-	-	Pillar 3

				services					
7	**GOK**	**Dadajabula Solar Mini grid at wajir County**	**2025/26 to 2026/27**	**Design, supply, Installation & commissioning of 150KW Solar PV plant with Storage.**	**0.9**	**300 households.**	**-**	**150**	**Pillar 3**
8	**AfDB & GoK**	**Last Mile Connectivity Project Phase VI**	**Procurement ongoing.**	**Maximization of existing transformers and installation of new transformers to connect 150,000 Households across 35 counties.**	**124.5**	**150,000 Households**	**-**	**-**	**Pillar III: Last mile access**
9	**JICA & GoK**	**Last-Mile Connectivity Phase V**	**Mar 2024 – Sept 2026**	**Maximization of existing transformers and installation of new transformers to connect 11,000 Households across 4 counties.**	**22**	**11,000 Households**	**-**	**-**	**Pillar III: Last mile access**
10	**AFD/EU/EIB & GoK**	**Last-Mile Connectivity phase IV**	**Sept 2024-Sept 2026**	**Maximization of existing transformers and installation of new transformers to connect 224,500 Households across 32 counties.**	**208.4**	**224,500 Households**	**-**	**-**	**Pillar III: Last mile access**
11	**GoK**	**Last-Mile Connectivity**	**Continuous**	**Maximization of existing transformers and installation of new transformers to connect 425,800 Households across 47 counties.**	**261.4**	**502,176 Households**	**-**	**-**	**Pillar III: Last mile access**
12	**World Bank**	**KEMP (Kerio, Kaeris & Dabel)**	**2023/24-2026/27**	**The project consisted of design, Supply, Installation and Commissioning of Solar Photovoltaic Generation Plants with Associated Power Distribution Network (Mini-Grids)**	**1.75**	**1,026 Households**	**-**	**175**	**Pillar III: Last mile access.**
13	**BADEA, SFD, ADFD, OPEC Fund**	**Rural Electrification Project**	**2022/23-2026/27**	**Targets electrification of public facilities & surrounding households**	**3.4**	**6198 Households**	**N/A**	**N/A**	**Pillar III: Last mile access.**

14	OPEC Fund	Kenya Electricity Expansion Project	2022/23-2026/27	Targets electrification of markets and public facilities in selected off grid areas	1.5	1,316 Households	N/A	N/A	Pillar III: Last mile access.
15	GoK	Lodwar 66/11kV Substation and associated lines	Sept 2024 – Dec 2025	Establishment of 1x10MVA, 66/11kV SS and associated 11kV feeders, complete with 86km of 66kV incomer line	7.6	Enhance Electricity access in Lodwar County	N/A	N/A	Pillar 1
16	GoK	Kwale 33/11kV Stationand associated lines	July 2024 - Jan 2026	Establishment of 1x 2.5 MVA 33/11KV SS, 33KV and 11KV Lines	2.529	Electricity access in Kwale County	N/A	N/A	Pillar 1
17	GoK	Bomani 132/33kV S/S and 33KV Feed outs	May 2024 – Dec 2025	Establishment of 45MVA 132/33kV SS with 4NO. 33kV feeder Outs and 3NO. 132kV Line Bays	3.41	Electricity access in Kilifi County	N/A	N/A	Pillar 1
18	GoK	Chepseon-Ex Kericho Stn 33kV interconnector	Sept 2024 – June 2025	Construction of 34km of 33KV line from Chepseon and Kericho 33/11kV Stn	0.718	Electricity access in Kericho county	N/A	N/A	Pillar 1
19	GoK	Country wide 200 Nos. County boundary metering Stations	Mar 2023 – June 2025	Establishment of 200 NOs. county boundary metering stns in Nairobi, Mt. Kenya, Western and Coast regions	2.644	System loss reduction	N/A	N/A	Pillar 1
20.	World Bank	The Kenya Off grid Sola Access Projec for underserve counties (K OSAP),	2018-2026	The Kenya Off-Gri Solar Access Projec is a Word Ban financed project t increase access t modern energ services in 1 underserved countie in Kenya.	150	305,000 households	60,000	16100	Pillar 3
21	Private	Menengai 1 Phas I - Stage (GDC/Globeleq)	2024-2026	Construction of 35MW power plant	133.3	N/A	N/A	35	Pillar 1
22	Private	Menengai 1 Phas I - Stage (GDC/Orpower22	2024-2026	Construction of 35MW power plant	133.3	N/A	N/A	35	Pillar 1
23	Private	KTDA Nyambunde, Nyakwana	2023-2025	Construction of a 0.5MW Plant		1.57	N/A	0.5	Pillar 1
24	Private	Marco Borero C Ltd.	2024-2025	Construction of a 1.5MW		1.92	N/A	1.5	Pillar 1

25	Private	REA Viping Plantations Lt (DWA Estate Ltd)	2023-2026	Construction of a 1.44MW Plant		4.70	N/A	1.44	Pillar 1
26	Private	KTDA Ltd, Lowe Nyamindi	2023-2026	Construction of a 0.8MW Plant		2.52	N/A	0.8	Pillar 1
27	Private	KTDA Ltd, Soutl Maara (Greate Meru Power Co.)	2024-2026	Construction of a 1.5MW Plant		4.72	N/A	1.5	Pillar 1
28	Private	KTDA Ltd, Iraru	2024-2026	Construction of a 1MW Plant		3.14	N/A	1	Pillar 1
29	Private	Kleen Energ Limited	2024-2026	Construction of a 6MW Plant		18.86	N/A	6	Pillar 1
30.	JICA	63MW Olkaria 1 Rehabilitation	2023-2026	Construction of 63 MW Geothermal power plant	110	N/A	N/A	63	Pillar 1
31.	AFD	42.5MW Seven Forks Solar PV	2026-2027	Construction of 42.5 MW Solar PV Plant with a small BESS	67	N/A	N/A	42.5 5MWhr (BESS)	Pillar 1
32	KfW	8.6 Gogo Hydro Power Plant	2026-2028	Construction of 8.5 MW of Hydropower	35	N/A	N/A	8.6	Pillar 1
33	KfW	40MW Olkaria 1 Unit 4&5 and Olkaria IV Turbine Uprating	2025-2028	Project comprise uprating Olkaria I Unit 4&5 and Olkaria VII Turbines	50.85	N/A	N/A	40	Pillar 1
34	JICA & EIB	80.3MW Olkaria VII	2026-2029	Construction of 80.3MW MW of Geothermal	280	N/A	N/A	80.3	Pillar 1
35	World Bank	Battery Energy Storage System (BESS) Phase 1	2026-2027	Construction of 100MWhr BESS	79	N/A	N/A	100MWhr	Pillar 1
36.	AFD	1.5M Raising Masinga Dam	2026-2028	Raising of Masinga Dam to increase on Storage	83	N/A	N/A	Increase in storage	Pillar 1
37.	AFD	200MW Marsabit Wind Phase 1	2027-2029	Construction of 200 MW Wind Power	377	N/A	N/A	200MW	Pillar 1
38	KfW (GRMF)	Bogoria - Silali Geothermal Project	2014-2035	Development of geothermal field & Drilling	104 13.9 Grant	N/A	N/A	300MW of Drilled capacity	Pillar 1
39	GoK	Lessos Substation additional transformer	2025	Lessos Substation Tx 3 220/132kV 75MVA Transformer	2.5	N/A	N/A	N/A	Pillar I
40	EIB, AFD, AFDB, GoK	Nairobi Ring substations (Isinya, Athi River, Kimuka, Malaa)	2025	Malaa 220/66kV 2x200MVA Substation	47.76	N/A	N/A	N/A	Pillar I
41	AFDB, GoK	Mariakani 400/220kV substation	2025	Mariakani 400/220kV 4x200MVA	27	N/A	N/A	N/A	Pillar I

				Substation					
	EXIM China, GoK	**Awendo-Isebania 132kV**	**2025**	**50km transmission line and Isebania 132/33kV 1x23 Substation**	**129.69**	**N/A**	**N/A**	**N/A**	**Pillar I**
42	**EXIM China, GoK**	**Isinya-Konza 400KV**	**2025**	**90km Transmission line and Konza 400/132kV 2x350MVA substation**		**N/A**	**N/A**	**N/A**	**Pillar I**
	Gov of Spain, GoK	**Rabai-Kilifi 132kV (with inter link to existing 132/33kV SS)**	**2025**	**143km T/L and new Kilifi 132/33kV 2x45MVA SS**	**30.15**	**N/A**	**N/A**	**N/A**	**Pillar I**
	AFDB/GoK	**Nanyuki – Rumuruti 132kV**	**2025**	**79km T/L and Rumuruti 132/33kV 23MVA SS 70km Transmission line**	**50.96**	**N/A**	**N/A**	**N/A**	**Pillar I**
45	**AFDB/GoK**	**Nanyuki – Rumuruti 132kV 14.5 km UG cable**	**2025**	**29km Underground cable**	**17.82**	**N/A**	**N/A**	**N/A**	**Pillar I**
46	**AFDB/GoK**	**Nanyuki – Isiolo 132kV 5 km UG cable**	**2025**	**5km Underground cable**		**N/A**	**N/A**	**N/A**	**Pillar I**
47	**AFDB/GoK**	**Lessos – Kabarnet 132kV**	**2025**	**65km T/L and Kabarnet 132/33kV 1x23MVA SS**	**109.59**	**N/A**	**N/A**	**N/A**	**Pillar I**
48	**AFDB/GoK**	**Kitui – Wote 132kV**	**2025**	**66km Transmission line**		**N/A**	**N/A**	**N/A**	**Pillar I**
49	**AFDB/ EDCF Korea**	**Narok – Bomet 132kV**	**2026**	**176km T/L, Bomet 132/33kV 23MVA SS and Narok 132/33kV 23 MVA SS**	**27.07**	**N/A**	**N/A**	**N/A**	**Pillar I**
50	**KBC Belgium/GoK**	**Sondu (Thurdibuoro) – Ongeng (Homa Bay/Ndhiwa) 132kV**	**2026**	**69km Transmission line**	**18.84**	**N/A**	**N/A**	**N/A**	**Pillar I**
51 .	**JICA& GoK**	**Mariakani – Dongo Kundu 220kV Line**	**2027**	**110km T/L and Dongo Kundu 220/33kV 2x75MVA SS**	**53.03**	**N/A**	**N/A**	**N/A**	**Pillar I**
52o	**EXM China**	**Garsen – Hola-Bura–Garissa 220kV**	**2027**	**240km T/L, Hola 220/33kV 1x23MVA SS, Bura 220/33kV 1x23MVA SS and Garissa 220/132kV 1x60MVA SS**	**94.99**	**N/A**	**N/A**	**N/A**	**Pillar I**
46.	**GoK, AFD& DANIDA**	**Makindu substation LILO - 400kV**	**2027**	**4km T/L and Makindu substation 400/132kV**	**55.37**	**N/A**	**N/A**	**N/A**	**Pillar I**

				2x90MVA SS 4km Transmission line					
48.	**GoK, AfDB/EDCF Korea**	**Rumuruti – Kabarnet 132kV**	**2027**	**111km T/L, Rumuruti Tx2 132/33kV 1x23MVA SS and Kabarnet Tx2 132/33kV 1x23MVA SS**	**31.68**	**N/A**	**N/A**	**N/A**	**Pillar I**
49.	**GoK, AfDB/EDCF Korea**	**Malindi – Kilifi 220kV**	**2027**	**49km T/L and Kilifi 220/132kV 2x90MVA SS**	**55.67**	**N/A**	**N/A**	**N/A**	**Pillar I**
50.	**GoK, AfDB/EDCF Korea**	**Malindi -Weru (Circuit II) 220kV**	**2027**	**22km T/L and Malindi 220/33kV 45MVASS**	**27.13**	**N/A**	**N/A**	**N/A**	**Pillar I**
51.	**GoK**	**LILO on Juja/Naivasha 132kV- Maai Mahiu**	**2027**	**LILO and Maai Mahiu 132/66kV 2x60MVA SS**	**12.06**	**N/A**	**N/A**	**N/A**	**Pillar I**
52.	**GoK**	**Olkaria 1 AU-Olkaria IV /V 220KV**	**2027**	**16km Transmission line**	**14.76**	**N/A**	**N/A**	**N/A**	
53.	**GoK, WB**	**STATCOMS**	**2027**	**STATCOMs (Coast, Nairobi).Suswa 120MVAr ,2x100MVAr STATCOM/DRPC)**	**100.00**	**N/A**	**N/A**	**N/A**	**Pillar I**
54.	**GoK, WB**	**400kV Kimuka - LILO on Suswa– isinya 400kV**	**2027**	**4km T/L and Kimuka 400/220kV 2x200MVA**	**28.59**	**N/A**	**N/A**	**N/A**	**Pillar I**
55.	**GoK, AFD**	**National System Control Centre**	**2028**	**National System Control Centre**	**94.62**	**N/A**	**N/A**	**N/A**	**Pillar I, Pillar II**
56.	**EXIM China**	**Loiyangalani – Marsabit 220kV**	**2028**	**272km T/L and Loiyangalani 400/220 2x200MVA SS**	**126.81**	**N/A**	**N/A**	**N/A**	**Pillar I**
57.	**EXIM China**	**Kamburu-Embu 220KV**	**2028**	**300km T/L and Embu 220/132 2x90MVA SS**	**40.5**	**N/A**	**N/A**	**N/A**	**Pillar I**
58.	**EXIM China**	**Isiolo - Marsabit 220kV**	**2028**	**480km T/L and Marsabit 220/33kV 2x23MVA SS, Isiolo 220/132kV 1x90MVA**	**127.72**	**N/A**	**N/A**	**N/A**	**Pillar I**

Ongoing Projects Clean Cooking

S/No	Project Name	Project focus	Status	Commissioning year	Estimated Cost MUSD	DFI MUSD	GOK MUSD
1.	GIZ/GCF Climate Friendly Cooking Project	To reach 7.98 million people with improved cookstoves	Close to completion. Closure date September 2025	2020	28.3	27.1	1.2
2.	Kenya Off-grid Solar Access Projects (clean cooking component)	Clean cooking access to 14 underserved counties	Ongoing Scheduled completion date is May 2026	2018	6	5.1	0.9
3.	UK PACT Clean Energy Transition Project	5 projects covering, local manufacturing, energy crops production, county energy planning and clean energy access	Not yet accessed funding- Requests for proposals evaluated	Not yet commissioned	5.2	4.42	0.78
4.	Energising Development (EnDev) Kenya - GIZ	Improved Biomass Cookstoves (ICS), Electric Cooking solutions, Biodigesters, Solar PV, Solar Drying, Solar Water Heating (SWH)	Ongoing	2023	13	11.3	1.7
5.	Energy Transition Council UK PACT led Rapid response Facility	Development of Kenya National Cooking Transition Strategy, Kenya National Electric cooking Strategy, Knowledge Management Strategy	Strategies developed. In the process of Developing Action Plans and Investment prospectuses	2021	4.74	4.5	0.24
	Biogas and solar water heating systems for clean cooking in public secondary schools	Installation of 10m3 biogas systems and 1 No. 2m3 Centralized Solar Water Heating System per school for clean cooking in eleven (11) schools	Ongoing 2025-2026	2025	0.42	0	0.42

5.3. Annex III: Projects & Investment Needs

Pillar I: Expand Power Generation Capacity at Competitive Costs

S/N		Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source		Pillar
					Public (MUSD)	Private (MUSD)	
1.	Geothermal	Geothermal - KenGen	65	207.5	207.5	-	Pillar 1
2.		Geothermal- GDC Drilling	-	445.60	445.60	-	
3.		Geothermal (KenGen - PPP)	198.64	695.24		695.24	Pillar 1
4..		Geothermal - GDC-IPP (Silali, Suswa and Menengai III)	310	1,180.48		1,180.48	Pillar 1
5.	Hydropower	Hydros-KenGen (Karura, Pumped Hydro)	390	1043.01	1043.01	-	Pillar 1
6.		Small Hydros- IPP	123	385.61	-	385.61	Pillar 1
7.		Hydros- PPP	693.00	2,569.644	-	2569.6	Pillar 1
8.	Wind +BESS	Wind - KenGen (Marsabit and Meru)	80	150.88	150.88	-	Pillar 1
9.		Wind IPP	250.00	471.50	-	471.50	Pillar 1
11.		PV- IPP	320	408.6	-	408.6	Pillar 1
12.	BESS	BESS - KenGen	100.00	079	079	-	Pillar 1
13.		BESS - IPP	200.00	158		158	Pillar 1
14.	Biomass	Biomass-IPP	130	425		425	Pillar 1
		TOTAL	2859.3	8219.17	1925.99	6293.18	

Pillar I: Expand Transmission Capacity at Competitive Costs

Project Name	Timeline	Project Description	Estimated Total Cost (MUSD)	Funding Sources		Relevant Pillar(s) & Binary Targets
				Public: GoK, DFI (MUSD)	Private (MUSD)	
Mobile Transformers	2026	Mobile 220/33kV 1x30MVA and 132/33kV 1x30MVA	15	15	-	Pillar I
Mobile Reactors	2026	Mobile 220kV reactor 1x20MVAr and 132kV reactor 1x20MVAr.	11.6	11.6	-	Pillar I
SCADA Upgrade	2026	SAS Upgrade, CCTV& Access Control, SCADA Upgrade, new Metering System, KETRACO WAN	16	16	-	Pillar I
Intertie between Konza 400/132 and Konza 132/33kV	2026	11km Transmission line	3.97	3.97	-	Pillar I
Kibos Reactor	2027	Kibos 20MVAr reactor	3.24	3.24	-	Pillar I

Ortum Substation	2027	Ortum 220/33 45MVA	3.87	3.87	-	Pillar I
Garissa Substation	2027	Garissa 132/11kV 23MVA	3.2	3.2	-	Pillar I
Kisii Substation	2027	Kisii 132/33kV 2x45MVA	3.3	3.3	-	Pillar I
Installation of Phase Shifting Transformers at Suswa	2027	Installation of Phase Shifting Transformers (PST) at Suswa	9.8	9.8	-	Pillar I
Kipevu - Mbaraki 132kV	2027	13km T/L and Mbaraki 132/33kV 2x45MVA SS	14.44	-	14.44	Pillar I
Rongai Substation 132/33kV	2027	Rongai 132/33kV 2x45MVA	17.56	17.56	-	Pillar I
Olkaria 1 AU-Olkaria IV /V 220KV	2027	16km Transmission line	14.76	14.76	-	Pillar I
Webuye -Tongaren - Kitale 132kV	2027	73km Transmission line	24.82	24.82	-	-
Musaga-Webuye 132KV conversion to steel towers	2027	18km Transmission line	1.96	1.96	-	-
Juja-Ruaraka 132KV conversion to steel towers	2027	6.5km Transmission line and associated substation extension and modification	11.21	11.21	-	Pillar I
Kibos Substation extension	2027	Kibos 220/132kV 150MVA	5.6	5.6	-	Pillar I
Garsen Substation extension	2027	SS Ext. Garsen 220/33kV 23MVA	3.9	3.9	-	Pillar I
Kitale Substation extension	2027	Kitale 220/132kV 110MVA	5.2	5.2	-	Pillar I
Machakos Substation extension	2027	Machakos 132/33kV 23MVA	2.89	2.89	-	Pillar I
Kyeni Substation extension	2027	Kyeni 132/33kV 23MVA	2.89	2.89	-	Pillar I
Kutus Substation extension	2027	Kutus 132/33kV 2x45MVA	3.779	3.779	-	Pillar I
Gilgil-Thika-Malaa-Konza 400kV	2028	410km Transmission line and Thika 400/220 2x400MVA SS, Malaa/Nairobi East 400/220 2x400MVA and Gilgil 400/220 2x400MVA	262.59	-	262.59	Pillar I
Sotik – Kilgoris 132kV	2028	100km T/L and Kilgoris 132/33kV 2x23MVA SS	22	-	22	Pillar I
Loiiyangalani/Suswa LILO - Loosuk 400kV	2028	360km T/L and Loosuk Switch 400kV substation and Lessos 400/220kV 2x400MVA Transformers	166	-	166	Pillar I
Kisumu (Kibos) - Kakamega – Musaga 220kV	2028	146km T/L, Kakamega 220/33 2x45MVA SS and Musaga 220/132 2x90MVA SS	71.17	-	71.17	Pillar I
Rongai 400/220 LILO	2028	8km Transmission line and Rongai 400/220 2x200MVA SS	34.05	34.05	-	Pillar I
Rongai 220/132 LILO	2028	8km Transmission line and Rongai 220/132 2x90MVA SS	18.85	18.85	-	Pillar I
Kibos - Bondo 132kV	2028	61km Transmission line and Bondo 132/33 2x23MVA SS	23.53	23.53	-	Pillar I
Rongai - Keringet - Chemosit 220kV	2028	192km T/L and Keringet 220/33 2x60MVA SS, Chemosit 220/132kV 2x90MVA SS	100	100	-	Pillar I
400/220kV SS at Baringo and LILO to Loosuk/Lessos line	2028	12km Transmission line and Baringo 400/220kV 2x400MVA SS	35.24	35.24	-	Pillar I

Garissa Substation extension	2028	Garissa 220/132kV 1x110MVA - second TX	5.2	5.2	-	Pillar I
Chemosit Substation extension	2028	Chemosit 132/33kV 2x45/60MVA	2.178	2.178	-	Pillar I
Githambo Substation extension	2028	Githambo 132/33kV 23MVA - second TX	2.89	2.89	-	Pillar I
Mwingi Substation extension	2028	Mwingi 132/33kV 23MVA	2.89	2.89	-	Pillar I
Wote Substation extension	2028	Wote 132/33kV 23MVA	2.89	2.89	-	Pillar I
Thurdibuoro Substation extension	2028	Thurdibuoro 132/33kV 23MVA	10.08	10.08	-	Pillar I
Kitui Substation extension	2028	Kitui 132/33kV 23MVA	2.89	2.89	-	Pillar I
Meru - Maua 132kV	2029	70km T/L and Maua 132/33kV 2x23MVA	25.63	-	25.63	Pillar I
Kiambere - Maua – Isiolo 220kV	2029	290km T/L and Maua 220/132kV 2x90MVA SS	120.94	-	120.94	Pillar I
Menengai - Olkalou – Rumuruti 132kV	2029	140km T/L and Olkalou 132/33kV 2x23MVA	34.34	-	34.34	Pillar I
Rumuruti - Maralal/Loosuk 132kV	2029	296km T/L and Loosuk 132/33kV 1x23MVA	48.84	-	48.84	Pillar I
Ishiara - Meru LILO - Marimanti 132kV	2029	26km T/L and Marimanti 132/33kV 2x23MVA SS, Ishiara 132/33kV 1x23MVA	16.24	16.24	-	Pillar I
220kV Kiambere/Rabai LILO - Mutomo	2029	3km T/L and Mutomo 220/132kV 2x90MVA SS	36.86	-	36.86	Pillar I
132kV Mutomo- Makindu	2029	138km T/L and Mutomo 132/33kV 2x23MVA				
Turkwel – Lokichar – Lodwar 220kV	2029	240km T/L and Lokichar 220/66kV 2x23MVA SS, Lodwar 220/33kV 2x23MVA	100	100	-	Pillar I
Kwale LILO (Mariakani/Dongo Kundu) -Kibuyuni (including switch station at Bang'a) and 132kV intertie to existing network	2029	154km T/L and Shimoni/Kibuyuni 220/132kV 2x90MVA SS	84.9	84.9	-	Pillar I
Second Circuit LILO Nakuru West –Lanet 132KV	2029	3km Transmission line	1.91	1.91	-	Pillar I
400kV Kenya-Uganda Interconnector	2030	264km T/L and Lessos 220/132kV 75MVA	161.83	161.83		Pillar I
Ndhiwa (Ongeng) - Magunga (Karungu Bay/Sindo) 132kV	2030	50km T/L and Magunga 132/33 1x23MVA	21.24	21.24	-	Pillar I
Machakos – Mwala – Sarara (T-off of Kindaruma – Juja line) 132kV	2030	156km T/L and Mwala 132/33 2x23MVA	33.21	33.21	-	Pillar I
Mtwapa 132/33kV off Rabai-Kilifi 132kV	2030	3km T/L and Mtwapa 132/33 2x45MVA	10.63	10.63	-	Pillar I
Githambo - Othaya-Kiganjo 132kV	2030	144km T/L and Othaya 132/33 2x23MVA SS	28.03	-	28.03	Pillar I
LILO on Nairobi – Mombasa 400kV system - New Voi 400/132kV ss	2030	12km T/L and Voi 400/132kV 2x150MVA	18.24	-	18.24	Pillar I
Reinforcement of Nairobi – Mombasa 132kV system at Voi 132kV intertie	2030	14km T/L and New Voi 132/33kV 2x23MVA	10.91	-	10.91	Pillar I

Garissa – Habaswein/Dadaab – Wajir 220kV	2030	330km T/L and Habaswein 220/33 2x23MVA SS, Wajir 220/33 2x23MVA SS	176.18	176.18	-	Pillar I
Isiolo – Garba Tula – Garissa 220kV	2030	640km T/L and Garba Tulla 220/33 2x60MVA	177.99	177.99	-	Pillar I
STATCOMS	2030	-200MVAr, +150MVAr STATCOM/DRPC at Western Kenya region, Nairobi Region and Coast region	135	135	-	Pillar I
Malaa – Tatu City and LILO Dandora/Thika Road 220kV	2030	60km T/L and Switch Station at Tatu City	30.11	-	30.11	Pillar I
Thika/Malaa – HG Falls 400kV	2030	400km Transmission line	134.84	134.84	-	Pillar I
Kiambere/Malaa LILO-Karura 220kV	2030	20km Transmission line	10.44	10.44	-	Pillar I
Reconductoring of KPTSIP lines with second circiuit: i. 132kV Olkaria - Narok ii. 132kV Sotik-Bomet iii. 132kV Sultan Hamud-Wote-Kitui-Mwingi iv. 132kV Ishiara- Kieni v. 132kV Nanyuki-Rumuruti	2030	353km Transmission lines and Substation Extension of KPTSIP SS to accomdate second circuits: i. 132kV Olkaria - Narok ii. 132kV Sotik-Bomet iii. 132kV Sultan Hamud-Wote-Kitui-Mwingi iv. 132kV Ishiara- Kieni v. 132kV Nanyuki-Rumuruti	31.40	31.40	-	Pillar I
Voi - Taveta 132kV	2030	220km Transmission line and Taveta 132/33 2x23MVA SS	34.76	-	34.76	Pillar I

Pillar 1 & 3: Expand Distribution Capacity at Competitive Costs

S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source		Pillar
				Public (MUSD)	Private (MUSD)	
1.	Nairobi & North Eastern Regions:Proposed New Substations complete with associated feeders (Kiserian 66/11kV, Joska 66/11kV, Mwalimu Farm 66/11kV, Juja Farm 66/11kV , Kajiado II 33/11kV, Ongata Rongai 66/11kV, Mtito Andei 33/11kV, Sekea Mbitini 33/11kV, Mutomo 33/33kV switching station).	240MVA	49.6	49.6	-	Pillar 1 and 3
2.	Mt. Kenya Region:Proposed New Substations and associated feeders (Othaya 132/33kV, Maua 132/33kV)	69MVA	15.4	15.4	0	Pillar 1 and 3
3.	Coast Region:Proposed New & upgrade Substations complete with associated feeders (Mbaraki 132/33kV, Mtongwe 33/11kV, Shimoni 33/11kV)	134MVA	14.7	14.7	0	Pillar 1 and 3
	Proposed upgrade of existing substations (New Bamburi 132/33kV, Jomvu 132/33kV & Kipevu 132/33kV)	129MVA	5.6	5.6	0	Pillar 1 and 3
4.	Central Rift & North Rift Regions:Proposed New Substations complete with associated feeders (Siongiroi 33/11kV, Ndaragwa 33/11kV, Rongai 132/33kV, Maraba 33/11kV, Turbo Switching station 33/33kV, Nyaru switching station 33/33kV, Kaptagich switching station 33/33kV)	62MVA	16.6	16.6	0	Pillar 1 and 3
5.	Distribution Systems Reinforcement: Construction of MV Distribution Lines to enhance network capacity and flexibility	712KM	21.6	21.6		Pillar 1 and 3
6.	Hybridization of Off-Grid Diesel Generation Stations with Renewable energy Systems: Dadaab, Takaba, Rhamu, Hulugho, Banissa, Mandera, Kakuma, Mfangano, Baragoi, Lokiriama, Laisamis, Maikona, Lokori	11,805KW	46	0	46	Pillar 1 and 3
7	Transmission line reinforcement: Reconductoring of the key overloaded 220kV and 132kV transmission lines with high temperature low sag conductors. i. Olkaria – Suswa – Nairobi North – Dandora 220kV double circuit line 114.4Kms ii. Naivasha – Juja 132kV double circuit line 76.2Kms iii. Muhoroni – Chemosit 132kV single circuit line 30.7Kms iv. Muhoroni – Kisumu 132kV single circuit line 48.5Kms v. Muhoroni – Lessos 132kV single circuit line 56.7Kms	328KM	50	50	-	Pillar 1 and 3

S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source		Pillar
				Public (MUSD)	Private (MUSD)	
8	Sub Transmission Grid Automation Project: Implement an automation project for the 66kV Sub Transmission network by implementing double busbar (Gas Insulated Substation - GIS) arrangements for the substations in the larger Nairobi Metropolitan area; Karen substation (2x23MVA), Nairobi West substation (2x45MVA), Ruiru substation (3x23MVA), Lower Kabete substation (2x23MVA), Westlands substation (2x23MVA), Kileleshwa substation (2x23MVA), Nairobi South substation (3x23MVA), Parklands substation (2x45MVA), Komarock substation (2x23MVA)	N/A	180	180	-	Pillar 1 and 3
9	Upgrade and Reconfiguration of Dandora 220/132kV substation: Reconfiguration of the 220kV and 132kV busbars to double busbar for supply flexibility and installation of additional 200MVA 220/132kV Transformer for redundancy.	200MVA	100	100	-	Pillar 1 and 3
10	Transmission System Reinforcement around Nairobi City - 220/132kV Transmission ring with associated substations to meet the rising demand.	450MVA	450	450	-	Pillar 1 and 3
11	Distribution Transformer reinforcement to reduce system losses and enhance supply reliability by installation of smaller capacity distribution transformers.	80MVA	50	50	-	Pillar 1 and 3
12	Smart Grid Implementation Project: i. Replacement of all Electromechanical and non-smart digital relays to Intelligent Electronic Devices (IEDs) with integration to the SCADA system ii. ADMS system expansion to cover all 7 other regions of the KPLC distribution network ii. Upskill workforce to support modern grid demands.	N/A	40	40	-	Pillar 1 and 3
13	Distribution Transformer Metering with Meter Data Control Centres: i. Install Meters on 40,000No Transformers complete with energy balance between transformer and customer energy meters i. Implement the meter data control centres across 7No regions for real time monitoring of the energy losses at MV and LV level with response systems.	40,000No	60	60	-	Pillar 1 and 3
14	Sub transmission 66kV network reinforcement: Reconductoring to 300mm Al Conductor Composite Core-Carbon Reinforcement-(Carbon Fibre Composite Core) ACCC; Juja – South III, Juja – Huruma, Juja – Ruaraka I &II, Nairobi North – Rironi, Nairobi North – Kitusuru & Lukenya – Simba Cement.	81km	12	12	-	Pillar 1 and 3

S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source		Pillar
				Public (MUSD)	Private (MUSD)	
15	Lukenya Substation Upgrade: Convert to 132/66/11 kV GIS and increase number of 66kV bays, include 132kV switching substation and 12kM of 132kV line	90MVA	42	42	-	Pillar 1 and 3
16	Undergrounding the Lower CBD: Underground Lower CBD (Haile Sellasie-Tom-Mboya-Nairobi River-Globe Roundabout) sections both MV & LV Network.	42KM	60	60	-	Pillar 1 and 3
	Total		1,207.9	1,161.9	46	

Last Mile Grid Densification, Intensification and Extension

S/N	PROPOSED PROJECTS	GRID DENSIFICATION (KPLC)		GRID INTENSIFICATION (KPLC)		GRID EXTENSION (REREC)		Funding Source	
								Public	Private
		Target Households	Estimated Cost MUSD	Target Households	Estimated Cost MUSD	Target Households	Estimated Cost MUSD	Estimated Cost MUSD	Estimated Cost MUSD
1.	Nairobi Region. Proposed Last-Mile access covering the counties of Nairobi, Kajiado, Makueni & Machakos	462,147	372.5	78,388	43.5	48,241	47.7	463.7	0
2.	Mt. Kenya Region. Proposed Last-Mile access covering the counties of Embu, Isiolo, Nyeri, Tharaka Nithi, Meru, Muranga, Laikipia and Kirinyaga	544,911	561.6	77,970	97.5	27,541	39.9	699	0
3.	Coast Region. Proposed Last-Mile access covering the counties of Mombasa, Kilifi, Lamu, Kwale, Taita Taveta & Tana River.	274,361	251.1	69,444	120.9	37,267	53.8	425.8	0
4.	Central Rift Region. Proposed Last-Mile access covering the counties of Nakuru, Bomet, Nyandarua, Baringo, Narok, Kericho & Samburu.	424,955	423.6	93,114	66.4	83,066	70.7	560.7	0
5.	North Rift Region. Proposed Last-Mile access covering the counties of Elgeyo Marakwet, Nandi, Uasin Gishu, West Pokot, Turkana & Trans Nzoia.	401,677	418.3	44,912	44.1	37,670	40.3	502.7	0
6	Western Region. Proposed Last-Mile access covering the counties of Kisumu, Kakamega, Bungoma, Busia, Vihiga & Siaya.	876,291	895.9	80,471	63.8	4,050	4	963.7	0
7	South Nyanza Regions. Proposed Last-Mile access covering the counties of Migori, Homa bay, Kisii & Nyamira	540,462	528.5	63,939	55	7,120	7.8	591.3	0
8	North Eastern Regions. Proposed Last-Mile access covering the counties of Kiambu, Mandera, Marsabit, Wajir, Garissa & Kitui	392,336	355.5	39,899	36.5	75,323	105.6	497.6	0
	Total	4,002,187	3,807	567,917	527.5	320,278	369.8	4,704	0

II: Last Mile Access Mini Grids and Stand-Alone Pv							
S/ No	PROPOSED PROJECTS	MINI-GRIDS (REREC/PRIVATE SECTOR)		STAND-ALONE PV SYSTEMS (REREC/PRIVATE SECTOR)		FUNDING SOURCE	
						PUBLIC	PRIVATE
		Target House holds	Estimated Cost MUSD	Population Clusters	Estimated Cost MUSD	Estimated Cost MUSD	Estimated Cost MUSD
1.	Nairobi & Mt Kenya Region. Proposed Mini-Grids/ Stand-Alone PV Systems covering the counties of Kajiado, Isiolo, Meru Laikipia & Embu	5,810	8.6	294	6.4	7.5	7.5
2.	Coast Region. Proposed Mini-Grids/ Stand-Alone PV Systems covering the counties of Kilifi, Lamu, Kwale, Taita Taveta & Tana River	6,263	8.7	214	4.5	6.6	6.6
3.	Central Rift, Western & South Nyanza Region. Proposed Mini-Grids/ Stand-Alone PV Systems covering the counties of Baringo, Narok, Samburu, Bungoma & Homa-Bay	8,138	11.5	22	0.5296	6	6
4.	North Rift Region. Proposed Mini-Grids/ Stand-Alone PV Systems covering the counties of West Pokot & Turkana	49,519	67.3	93	2.333	34.8	34.8
6.	North Eastern Regions. Proposed Mini-Grids/ Stand-Alone PV Systems covering the counties of Mandera, Marsabit, Wajir, Garissa & Kitui	129,318	170.1	331	7.8	90	90
	Totals	199,048	266.2	954	21.6	143.9	143.9

Pillar III: Last Mile Access (Clean Cooking)					
S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source	
				Public (MUSD)	Private (MUSD)
1. .	Provide Clean cooking solutions in 14 underserved Counties and vulnerable communities -2 million cookstoves	N/A	36	36	-
2.	Establishment of a coordination framework for clean cooking and Clean Cooking Implementation Unit	N/A	1.4	1.4	-
2.	Pay as you go and RBF financing for Clean Cooking appliances	N/A	200	-	200
3.	Consultancy for development of guidelines for development of Clean Cooking projects as carbon projects including Capacity Building	N/A	2	2	-
4.	Derisking of clean cooking projects through guarantees to enable local financial institutions to finance them	N/A	50	50	-
5.	Support utility-led Electric Cooking programs for Market Development Initiatives e.g Last Mile Project/Kenya Electric Market Development Initiatives	N/A	20	20	-
6.	Clean cooking in public institutions (schools, health centers and Prisons) -37,500 public institutions and low income households (2.3 million Households)	N/A	168	168	-
7.	Promote Local Production and Assembly of Clean Cookstoves – Start up or Scale Up production of both Household and Institutional scale Stoves	N/A	200	-	200

8.	**Promote development of Bioethanol distilleries**	**N/A**	**100**	**-**	**100**
9.	**Clean cooking awareness through: Clean cooking week, Sector Association e.g CCAK, School-based programs, Media Campaigns (National TV, Local radios and Print), Community based programs, Convening innovation platforms etc.**	**N/A**	**6**	**6**	**-**
10.	**Consultancy to design a robust system for governance, monitoring, and accountability framework and Implementation**	**N/A**	**2**	**2**	**-**
11.	**Clean cooking mapping/survey and Create a Centralized Data and Monitoring System including knowledge management**	**N/A**	**3**	**3**	**-**
12.	**Development and Review of Clean Cooking Standards/MEPS**	**N/A**	**2**	**2**	**-**
13.	**Establish an end-of-life Management Framework for cooking appliances**	**N/A**	**2**	**2**	**-**
14.	**Institutional Strengthening & Capacity Building on Clean Cooking (Softwares, training….) and knowledge management**	**N/A**	**3**	**3**	**-**
15.	**Study to identify fiscal and non-fiscal incentives to support market development**	**-**	**2**	**2**	**-**
16.	**Establishment of 30 Energy centres**		**192**	**192**	**-**
	Total		**989.4**	**489.4**	**500**

Electric Vehicle Charging Infrastructure

S/N	**Project Name & Details**	**Capacity**	**Estimated Cost MUSD**	**Funding Source**	
				Public (MUSD)	**Private (MUSD)**
1.	**Charging Stations Phase 1** **Charging Locations include: Mombasa, Ukunda, Lunga lunga, Voi, Mtito Andei, Emali, Konza, Southern Bypass, Gitaru, Mai Mahiu, Naivasha, Nakuru, Eldoret, Malaba, Kisumu, Busia**	**N/A**	**9.16**	**9.16**	
2.	**Charging Stations Phase 2** **Charging Locations include: Malindi, Namanga, Athi River, Ruiru, Machakos, Nanyuki, Narok, Bomet, Kericho, Timboroa, Kakamega, Kisii, Kiganjo, Kitale, Lodwar, Nanyuki, Isiolo, Marsabit, Moyale, Mwingi, Garissa, Embu and Meru**	**N/A**	**13.9**	**13.9**	
3.	**Charging Stations Phase 3** **Charging Locations include: All County HQs not covered in Phase 1&2 plus Major Satellite Towns**	**N/A**	**24.2**	**24.2**	
4.	**Development and rollout of 10, 000 Charging stations**			**-**	**100**
	Total		**147.26**	**47.26**	**100**

Pillar III: Last Mile Access (Productive Use of Energy)

S/N	**Project Name & Description**	**Capacity**	**Estimated Cost MUSD**
1	**Development of the Kenya National PUE Strategy** Strategy development to be preceded by a national state of the PUE sector diagnostics study	**N/A**	**2**

Pillar IV: Incentivize private sector participation to unlock additional resources					
S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source	
				Public (MUSD)	Private (MUSD)
1.	Technical support for RE & FIT regulations, public participation and awareness. Preparation of standardized PPAs and Procurement guidelines/documents		**1.0**	**1.0**	
2.	TA to mobilize local funding		**1.0**	**1.0**	
3	TA for structuring and issuing Green Bonds and Sustainability Bonds.		1.0	1.0	-
4	Asset Monetization Study		1.0	1.0	
5.	Development PPP regulations and gazettement of PPP regulations for PPP Act Cap 430, FiT and REAP		1.0	1.0	-
6.	Screening of Transmission lines project and development of PPP project pipeline(Transaction Advisor)		1.0	1.0	-
7.	Development of 14 No Testing facilities for RE equipment across the country		3.5	1.5	2
8.	Raise seed money to pre fund Project Account	20 @ 1.8MUSD	36	36	
9.	Risk Mitigation to Drill 50 wells		250.0	250.0	-
10.	Update energy resource atlas		2.0	2.0	-
11	Technical support for Mini grids regulations, public participation and awareness		1.0	1.0	
12	Renewable Energy Integration (RE Corridor and evacuation Substation) studies based on the updated energy resource atlas		1.0	1.0	-
13	TA for Concessioning of Hybridization of existing Minis grids		1.0	1.0	
14.	Development of emission reduction calculation methodology, framework (reporting templates) and capacity building for sector		2.0	2.0	-
15.	Pilot Asset Monetization Project		5.0	5.0	-
16.	Investor Engagement forums		5.0	5.0	-
	Total		**312.5**	**310.5**	**2**

Pillar V: Work toward financially viable utilities that provide reliable service					
S/N	Project Name & Details	Capacity	Estimated Cost MUSD	Funding Source	
				Public (MUSD)	Private(MUSD)
1.	Development and Implementation of Business and Investment Plans by all Utilities (REREC, KETRACO and GDC)		1.5	1.5	-
2.	Conduct Cost of Service Study		1.5	1.5	-
3.	Develop guideline on competitive financing sources		0.5	0.5	-
	Development of a Framework for engaging Diversification Investments		0.5	0.5	
4.	Develop a catalogue of diversified financing & innovative options		0.2	0.2	-
5.	Technical Assistance for review of tariffs		1.0	1.0	-
6	Technical assistance and capacity building for real time asset monitoring and asset management systems		3.0	3.0	
7.	Asset management systems and with real time asset condition monitoring and management system		9.0	9.0	
	Technical Assistance Rural electrification master plan		1.0	1.0	
6.	Standardization of technical specification for transmission and distribution infrastructure		0.5	0.5	-
7.	Centralised and standardised data collection and management system		5.0	5.0	-
8	Mainstreaming gender equity in the energy sector		1.3	1.3	
9.	Institutional Strengthening and capacity building		5.0	5.0	
	Total		**30**	**30**	-