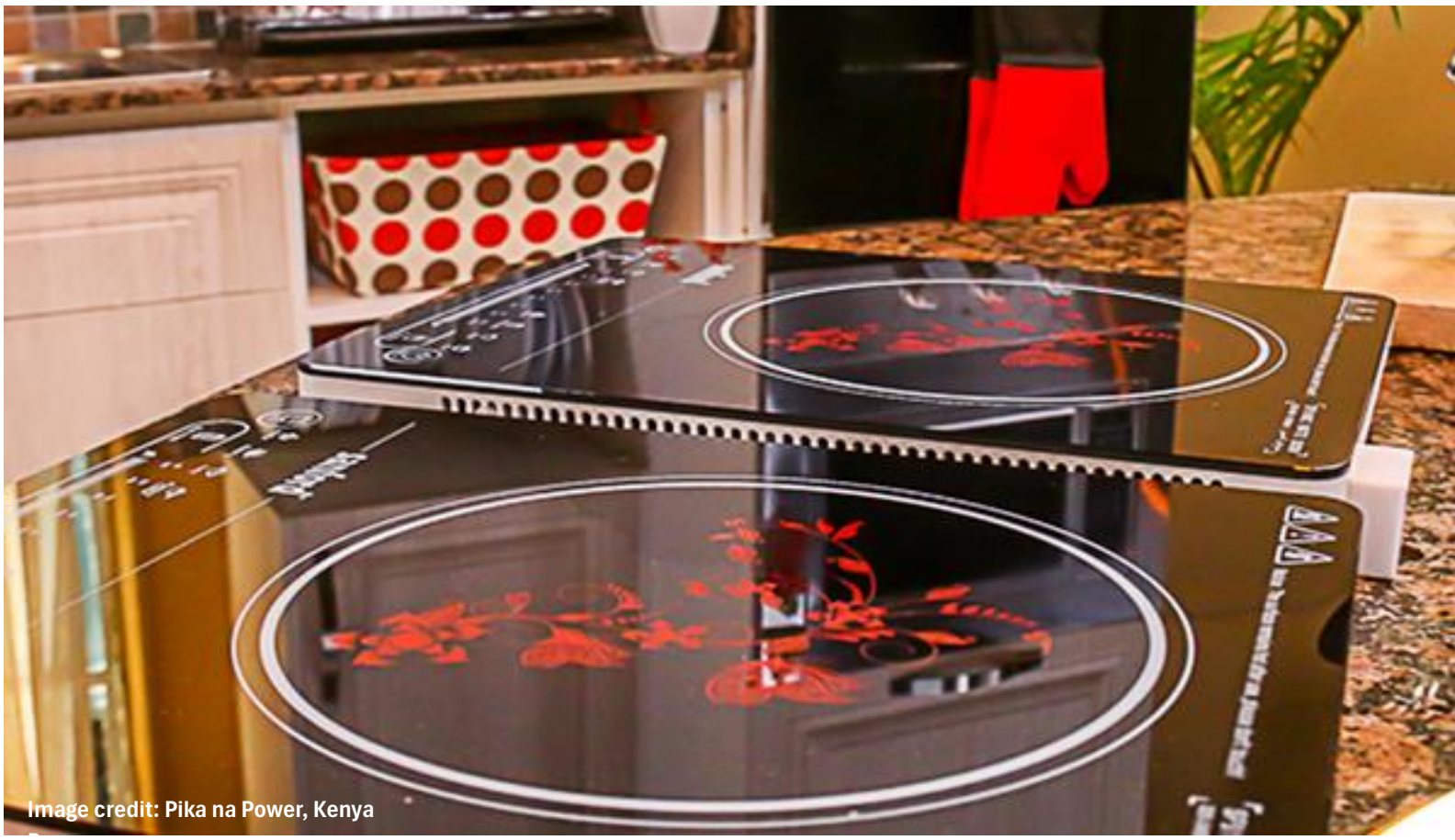
REPUBLIC OF KENYA

MINISTRY OF ENERGY AND PETROLEUM



Kenya National electric Cooking Strategy

ACTION PLAN

A Roadmap for Implementation: Key Activities, Monitoring and Evaluation, Stakeholder Engagement, Investment Overview and Resource Mobilisation

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1. Overview

This document presents a detailed roadmap for scaling eCooking, identifying key activities, establishing a robust Monitoring and Evaluation (M&E) framework, outlining a resource mobilization strategy, and crafting an inclusive stakeholder engagement plan.

- ***Key Activities:*** The first section presents tables that outline key activities, responsibilities, targets, and timeframes, addressing specific barriers such as policy misalignment, limited awareness, gender disparities, and infrastructural constraints. This structured approach enables stakeholders to grasp the complexities of the initiative, facilitating effective planning and execution.
- ***Monitoring and Evaluation Framework:*** To measure the success and impact of the outlined activities, the second section establishes a robust Monitoring and Evaluation (M&E) framework. It delineates key performance indicators, data collection methodologies, and stakeholder roles in the M&E process. An eCooking Oversight Committee, comprising experts from relevant sectors, will be pivotal in this process, ensuring that the eCooking strategy aligns with its long-term vision and immediate goals.
- ***Resource Mobilisation Strategy:*** Recognizing the need for substantial financial investment, the third section discusses the Resource Mobilisation Strategy. This part of the document focuses on identifying diverse funding sources necessary for the eCooking sector's growth.
- ***Stakeholder Engagement Plan:*** This section underscores the importance of involving various stakeholders in the eCooking sector, outlining specific strategies for effective engagement. The plan aims to foster consensus, address barriers, and ensure that the needs and concerns of all stakeholder groups are met.

This document serves as a guide for stakeholders at all levels, providing a structured approach to achieving the strategic objectives of the Kenya National eCooking Strategy.

2. Key activities

In the journey to scale electric cooking in Kenya, several barriers need to be addressed to promote its adoption across various sectors of the population. These challenges range from policy misalignment and limited awareness to issues related to gender disparities and infrastructure constraints. To systematically tackle these challenges, the subsequent tables detail a strategic roadmap, outlining key activities spanning a five-year period from 2023 to 2028. Each table corresponds to specific barriers and proposes tailored recommendations, key activities, responsibility assignments, targets, and suggested timeframes. These tables are crucial for stakeholders to understand, plan, and execute the interventions required for the successful promotion and adoption of electric cooking in Kenya.

2.1. Electrification

Strategic objective: To achieve universal access to reliable, and affordable electric cooking solutions for all Kenyan households, by accelerating the rate of grid expansion and off-grid electrification, while promoting the integration of renewable energy sources in our national energy mix.

Table 2.1 Key activities for electrification to support eCooking

Strategic intervention	Key Activities	Targets	Responsibilities	Timeframe
Behaviour Change Campaigns Behaviour Change Campaigns	• Target initial awareness campaigns and marketing for eCooking in regions of the country with surplus capacity and higher levels of availability and reliability, enabling Kenya Power and other utilities to grow their revenue in order to make the investments needed to increase capacity, availability and reliability in other parts of the country.	Attract at least 283,500 new eCooking users in surplus regions.	Kenya Power, MoEP, Energy service companies	2 years
	• Run targeted awareness campaigns to educate households on the essential household wiring upgrades needed for the safe use of eCooking appliances, along with the benefits of transitioning to electric cooking.	Reach a minimum of 2,897,862 households with messaging on safe household wiring	MoEP Kenya Power Minigrid developers	2 years
Grid intensification, densification and expansion	• Improve grid electricity capacity, availability, and reliability, especially in regions with lower grid capacity such as the Frontier counties, the Western, and North Rift regions. Enhance the availability of electricity, particularly during peak evening hours, and minimize unscheduled outages to encourage households to adopt electric cooking. Address voltage instability issues and improve the overall quality of electricity	Reference KNES	Ministry of Energy, Kenya Power REREC Development partners	Reference KNES

	supply to minimize damage to electric appliances and build trust among consumers. • As electric cooking appliance ownership is more pronounced in electrified regions, expanding the national grid or mini-grid coverage, and improving reliability would encourage more households to adopt electric cooking solutions.			
	• Tackle the issue of informal electricity connections by providing incentives and support for formal connections, along with enforcement measures to discourage informality. This will help ensure a more stable and reliable electricity supply for households.	Reduce informal connections by 30% in the next 2 years.	Kenya Power	Reference KNES
	• Upgrade household electrical infrastructure for safe eCooking: Focus on upgrading household wiring and connectivity, especially in urban areas prone to incidents. These upgrades should encompass proper grounding, cables of adequate capacity, and appropriately located kitchen sockets, ensuring they can safely support eCooking appliances. • Strengthen regulation and enforcement for household electrical systems, particularly in high-risk urban areas, to ensure households are in compliance.	Achieve 70% safety compliance in urban areas in the next 5 years.	Ministry of Energy, Kenya Power	Reference KNES
Off-grid investment	• Generate demand for eCooking services among Solar Home Systems (SHS) households to encourage them to upgrade from systems designed for lighting to higher-capacity systems and other off-grid solutions, particularly in rural areas where grid access is limited. • Provide incentives and support for research and development to design and manufacture affordable higher-capacity off-grid solutions suitable for eCooking.	TBD	MoEP Development partners SHS Energy Service providers, eCooking appliance manufacturers	3 years
eCooking pilot programme(s)	• Explore options for making electricity for cooking more affordable, particularly for underserved communities. EPRA & KPLC to collaborate with research institutes to pilot experimental tariffs with smart-metered appliances distributed via the pilot programme to inform the design of a dedicated eCooking tariff at the next tariff control period. • Kenya Power can enhance this effort by installing residential smart energy meters to accurately track household electricity usage for cooking, enabling a more tailored tariff structure. Smart meters could also be integrated into eCooking appliances to separate cooking energy	To be determined by the scale of the pilot programme	EPRA Kenya Power Research institutes Minigrid developers MoEP	2 years

	data from other household consumption, thus aiding in the effective design of the eCooking tariff. • Experiment with a finance package bundling eCooking appliances with household wiring assessments/upgrades and formalisation of connections in informal settlements.			
	• Energy storage solutions can be deployed to time-shift electric cooking loads away from the evening peak to balance the electrical load and make the scaling of electric cooking more sustainable. • Introduce price signalling mechanisms like time-of-use tariffs that encourage users to cook during off-peak hours.		Kenya Power and other sector utilities	2 years

2.2. eCooking appliances use and cooking practices

Strategic objective 2: To foster a widespread acceptance and sustainable use of eCooking solutions across Kenyan households, by overcoming cultural, financial, and informational barriers.

Table 2.2 Key activities for fostering widespread acceptance and sustainable use of eCooking solutions across Kenyan households

Strategic intervention	Key Activities	Targets	Responsibilities	Timeframe
Behaviour Change Campaigns	• Promote energy-efficient cooking appliances that can allow households with lower-capacity electricity systems to utilize electric cooking.	Reach a minimum of 2,897,862 households with messaging on eCooking practices	MoEP Appliance manufacturers, distributors, retailers	2 years
	• Conduct awareness campaigns and educational programs about the benefits of electric cooking appliances, focusing on energy efficiency, cost savings, convenience, and reduced pollution. Educate Kenyans of the compatibility of available appliances to different foods. • Engage in targeted behaviour change campaigns to address cultural preferences related to food taste and cooking practices. Share success stories and testimonials from households that have successfully transitioned to electric cooking to create a positive social norm around electric cooking.			

Market development activities (VAT exemption, RBF Programmes, Credit Financing Programmes)	• Offering energy-efficient electric cooking appliances at affordable prices, within the Ksh. 3,000 and Ksh. 15,500 range that households are willing to pay would help accelerate the adoption of electric cooking.	Acquire at least 1.3 million new eCooking households Lower the upfront cost of EPCs and induction cookers by 16% through the Tax waiver, 80% through the subsidy.	MoEP Kenya Revenue Authority Appliance manufacturers, distributors, retailers	5 years
System enablers	• Develop and promote electric cooking appliances that cater to the popular Kenyan dishes like ugali, rice, and vegetables. Work closely with local communities to understand their specific cooking practices, preferences, and challenges. This will enable the development of electric cooking solutions that are compatible with local cuisines.	Develop at least 3 new localised Electric Pressure Cookers or Induction Cookers	Appliance manufacturers, MoEP	3 years

2.3. Financing electric cooking

Strategic Objective 3: To enhance the financing ecosystem that empowers both consumers and suppliers to actively participate in the electric cooking market

Table 2.3 Key activities for enhancing the consumer financing ecosystem for eCooking

Strategic intervention	Key Activities	Targets	Responsibilities	Timeframe
Behaviour Change Campaigns	• Launch a national awareness campaign with messaging on available consumer financing options. Educate households on the availability and benefits of various financing options such as asset financing loans, PayGo, digitally-enabled financing, layaway savings, and chamas/ROSCA.	Reach a minimum of 2,897,862 households with messaging on eCooking financing mechanisms	Ministry of Energy, Financial Institutions Appliance manufacturers, distributors, retailers	2 years
Credit Financing programme	• Expand the range of digitally enabled consumer financing mechanisms, including smart appliances with PayGo functionality.	Provide financing to 278,461 households to procure eCooking appliances	Ministry of Energy, Financial Institutions	3 years RBF

Results Based Financing programme	• Support consumer financing through credit financing programmes and subsidies	Integrate smart meters into at least 60% of appliances sold in the market.	Appliance manufacturers, distributors, retailers Kenya Power, minigrid developers, SHS companies Development partners	5 years credit financing
	• Invest in robust monitoring and verification mechanisms to ensure transparency and effectiveness in implementing results-based financing and carbon financing schemes. Utilize smart meter data and other digital technologies to track usage and impact metrics, facilitating data-driven decision-making and payments.	All projects implement IoT enabled monitoring and verification by 2028		
	• Incentivise financial institutions to offer credit for women groups to procure eCooking appliances. • Bundle a BCC campaign with financial literacy programs for women.	Train 100 women-led Self-Help Groups in 1 year.	NGOs, Community Leaders, Microfinance Institutions	
VAT waiver	• To lower the upfront cost of appliances to boost affordability and stimulate market development	Stimulate upwards of 661,500 new appliance purchases due to the waiver	Ministry of Energy, Kenya Revenue Authority, National Treasury, Appliance retailers and distributors	2 years
System enablers	• Leverage various supply-side financing mechanisms such as grants, equity and impact investments, results-based financing, smart-meter-enabled carbon financing, and utility-led financing to create a diversified funding ecosystem for electric cooking appliances.	Secure at least $100 million in diverse financing within 5 years.	Ministry of Energy, Financial Institutions Appliance manufacturers, distributors, retailers Kenya Power, minigrid developers, SHS companies Development partners	5 years
System enablers	• Facilitate partnerships between MFIs and appliance manufacturers, authorized dealers/distributors and retailers to increase access to loans and financing options for households, particularly in rural areas. • Incentivise MFIs to offer special loan packages for eCooking appliances	Secure commitments from 5 MFIs to offer eCooking loan packages in collaboration with retailers/distributors	MFIs, Manufacturers, Retailers, Authorised dealers, NGOs	5 years

	• Leverage much larger investments in the electrification sector to tackle the clean cooking challenge by integrating eCooking into electrification programmes, e.g., embedding eCooking into the Phase III of the Last Mile Connectivity Programme. • Prioritize funding and support for high-impact projects that address significant market barriers, demonstrate potential for scale, and align with national goals for clean cooking and energy access. This includes projects that promote access to energy-efficient appliances, incorporate outcome-based incentives (e.g., gender inclusion, health and climate impacts), or integrate carbon finance.	Ensure that eCooking provisions are included in all electrification efforts by 2026. Fund and implement at least 1 high-impact eCooking project annually Raise $___million in carbon credits by 2028	Ministry of Energy, Development Partners, Investors, EnergyTech companies	5 years

2.4. The Supply Chain for eCooking Appliances

Strategic Objective 4: To cultivate a robust, integrated, and consumer-centric supply chain for electric cooking, focusing on promoting local manufacturing, enhancing distribution mechanisms, ensuring user-friendly product localization, and strengthening after-sale services.

Table 2.4 Key activities for strengthening the eCooking appliance supply chain

Strategic interventions	Key Activities	Targets	Responsibilities	Timeframe
Behaviour Change Campaigns	• Conduct awareness campaigns to educate customers about the importance of appliance warranties and their rights in terms of after-sales services, particularly in rural and remote areas.	Reach a minimum of 2,897,862 households with messaging on after sale services	MoEP, Appliance manufacturers, distributors, retailers eCooking Hubs and Pika na Power centers	2 years
System enablers	• Support the growth of local manufacturing and assembly industries for electric cooking appliances. This can be achieved through targeted investments in infrastructure, human capital, policy framework, and logistics. Local manufacturing can lead to more affordable products, customized appliances for local needs, and job creation.	Produce at least 2 local brands of eCooking appliances.	Ministry of Industrialization, Ministry of Education, Higher education institutes and TVETs, Manufacturers, Importers	5 years

	• Leverage County eCooking Hubs and incentivize the private sector through programs like KOSAP to extend distribution channels and after-sales services for eCooking appliances to rural households.	6 eCooking Hubs equipped to handle after sale services Establish 20 new service centres in 5 years.	County Governments, Retailers and distributors, NGOs, KPLC regional hubs, eCooking hubs	5 years
	• Develop mechanisms for importers and distributors to find and verify high-quality electric cooking appliances in the international market, minimizing the risk of purchasing low-quality products.	1 eCooking appliance quality verification portal	Kenya Bureau of Standards, Kenya Revenue Authority, Ministry of Trade, MoEP	5 years
	• Extend EPRA's star rating consumer labelling for energy-efficiency to eCooking appliances	Star rating implemented by 2026	EPRA, KEBS	2 years
	• Streamline warranty claims claim process by reducing the number of intermediaries involved and improving collaboration between manufacturers, retailers, and service providers. This could lead to faster turnaround times and better customer satisfaction.	Reduce average warranty claim turnaround time by 60%	MoEP, Appliance manufacturers, distributors, retailers Service Centers	5 years
	• Collaborate with manufacturers to ensure the availability of quality spare parts at reasonable prices, reducing the reliance on counterfeit or substandard components. • Support the standardisation of parts for eCooking appliance types.	Reduce spare part prices by 30%	MoEP, Appliance Manufacturers, Importers, Service Centers	5 years
	• Invest in education, technical training, and capacity-building programs to address the shortage of skilled engineers and technicians required for the entire supply chain.	Train 200 skilled technicians.	Ministry of Education, Higher education institutes and TVETs	5 years
eCooking pilot programme(s)	• Engage energy service companies to market and distribute appliances to their customers, e.g. by offering discounted eCooking appliances as part of a bundled package with electricity services; utilizing customer data to identify those most likely to benefit from eCooking for targeted marketing; offering flexible financing plans for the purchase of eCooking appliances through utility-led financing schemes; using existing customer service	To be determined by the scale of the pilot programme	Minigrid developers, SHS companies Kenya Power Regulatory Agencies	3 years

	channels like helplines and service centres to educate customers about the benefits of eCooking and how they can transition.			

2.5. Appliance standards: testing, labelling and certification

Strategic Objective 5: To establish a rigorous, transparent, and consumer-friendly appliance standards ecosystem for electric cooking, focusing on mandatory testing protocols, comprehensive labelling, and reliable certification mechanisms.

Table 2.5 Key activities for strengthening the eCooking appliance standards ecosystem

Strategic interventions	Key Activities	Targets	Responsibilities	Timeframe
Behaviour Change Campaigns	• Incorporate messaging about appliance safety and quality in public awareness campaigns.	Reach a minimum of 2,897,862 households with messaging on appliance quality.	MoEP, KEBS Appliance manufacturers, distributors, retailers	2 years
System enablers	• Establish a standardized national test method requirement to ensure consistent product quality. • Develop standardized test protocols.	Finalize and roll out standardized testing method.	Ministry of Energy, KEBS, Industry Experts	2 years
	• Implement mandatory testing for electric cooking appliances to ensure safety and quality. • Allocate specific resources and attention to test DC appliances, considering their use in off-grid areas.	Have mandatory testing in place within 2 years.	Ministry of Energy, KEBS	2 years
	• Develop a set of standardized efficiency parameters for performance testing.	Create standardized efficiency parameters within 2 years.	Ministry of Energy, Industry Experts, KEBS	2 years
	• Develop a labelling scheme for electric cooking appliances, highlighting energy efficiency and safety. • Expand EPRA's Kenya Energy Label to cover a wider range of kitchen appliances, including eCooking products	Roll out mandatory labelling within 2 years.	Ministry of Energy, EPRA, KEBS	2 years
	• Invest in capacity building, including infrastructure, equipment, and training in the testing facilities.	Double the testing capacity in 2 years.	Ministry of Energy, KEBS, other testing labs	3 years

	• Support institutions like Kijani, SERC, and the University of Nairobi in developing their testing capacities, ensuring knowledge transfer and localization of tests. • Provide resources to KEBS for them to acquire the necessary equipment and skills to expand their capacity for standardization, testing, and labelling of appliances.			

2.6. The policy environment

Strategic Objective 6: To establish a harmonized policy environment that robustly aligns electric cooking with national clean cooking, electrification, climate change, health, and innovation objectives.

Table 2.6 Key activities for aligning the policy framework to eCooking

Strategic interventions	Key Activities	Targets	Responsibilities	Timeframe
System enablers	Develop a coherent policy framework that links clean cooking and electrification goals across different policy and planning documents. This involves creating a clear narrative that connects electric cooking with broader objectives such as improving public health, reducing deforestation, and achieving climate change targets (See Section **Error! Reference source not found.** for detailed interventions).	Update all relevant national policy documents to include electric cooking narratives by 2026.	MoEP	2 years
	Harmonise targets and objectives by ensuring that clean cooking and electrification goals are consistently integrated and aligned across all these policy and planning frameworks. This includes setting specific, time-bound, and ambitious targets for electric cooking adoption.		MoEP	
	Foster coordination and collaboration among different stakeholders responsible for implementing various aspects of energy policy and planning. Co-opt existing cross-sector or interministerial committees for this purpose. Alternatively, establish a central coordination body or a multi-stakeholder platform can facilitate information sharing, joint planning, and resource mobilization.	Hold quarterly coordination meetings with documented action items and progress tracking.	MoEP	

	Align electric cooking with climate change and environmental policies, health policies, innovation and industrial policies to optimize the benefits of electric cooking in multiple areas such as reducing mitigating climate impacts, improving health outcomes, and stimulating innovation. A coordinated policy approach that fosters collaboration between relevant government agencies and stakeholders, leverages resources and expertise, supports development of the innovation system, and raises public awareness will be instrumental in driving the widespread adoption of electric cooking in Kenya.	Conduct at least 1 cross-sectoral workshops per year to integrate clean cooking into broader policy objectives.	Ministry of Health, Ministry of Environment, Ministry of Energy, and other relevant agencies	3 years

2.7. Gender mainstreaming

There is a disproportionate impact that traditional cooking methods have on women and girls, who typically bear the responsibility for cooking and are more exposed to indoor air pollution. Thus, gender mainstreaming is a pivotal aspect of this eCooking strategy. While the strategy already integrates gender considerations in key activities, this section ensures that women are more deliberately included and empowered in the development of the sector. Ultimately, gender mainstreaming is essential not only for achieving gender equality but also for meeting broader development goals related to clean energy access, improved public health, and environmental sustainability.

Table 2.7 A roadmap for mainstreaming gender in eCooking programmes

Strategic interventions	**Key Activities**	**Targets**	**Responsibilities**	**Timeframe**
Behaviour Change Campaigns	• Conduct targeted awareness and behaviour change campaigns and demonstrations to shift culture on decision making in households and the eCooking ecosystem in general.	Increase adoption rates by women generally, and in female-headed households by 30%	Ministry of Energy, Appliance manufacturers, distributors, retailers NGOs	5 years
eCooking pilot programme(s)	• Include women in pilot projects and feedback loops for electric cooking appliances.	At least 50% of participants targeted by pilot projects are women	Microfinance Institutions, NGOs, Government Programs	3 years

Credit financing programme, RBF programme	• Develop women-focused financing programs. Use women's self-help groups to facilitate credit access and peer support.	At least 50% of programme beneficiaries are women 50% of membership positions on the eCooking financing consortium and advisory board are allocated to women.	Appliance manufacturers, distributors, retailers Microfinance Institutions, Women's Groups, MoEP Development partners	5 years
System enablers	• Focus on women as key distribution agents. Train women entrepreneurs in appliance distribution and after-sales support.	At least 50% of RBF and credit financing vendors are women-led enterprises	Appliance manufacturers, distributors, retailers MoEP NGOs	5 years

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3. Monitoring and Evaluation Framework

This section serves as a framework for assessing the effectiveness, impact, and sustainability of the various interventions and activities outlined in the strategy. Recognizing that a robust Monitoring and Evaluation (M&E) mechanism is pivotal for ongoing learning, course correction, and accountability, this section will cover key performance indicators, data collection methods, timelines for assessments, and stakeholder roles in the M&E process. The aim is to ensure that the strategy not only meets its immediate objectives but also contributes to the long-term vision of making eCooking an accessible, affordable, and sustainable choice for communities across Kenya.

Key highlights of this comprehensive framework include:

- *Strategic focus on electricity demand*: Through metrics like the percentage increase in grid capacity and the number of households with Tier 3+ electricity connections, the framework aims to directly link eCooking adoption with increased electricity demand.
- *Data-driven approach*: Utilizing a variety of data collection methods, such as Kenya Power and EPRA energy sector reports, household surveys, and controlled tests, the framework ensures a robust and evidence-based assessment of the strategy's impact.
- *Annual and event-driven measurements*: The framework outlines both annually recurring measurements such as 'increase in market share of energy-efficient eCooking appliances' or 'number of new eCooking hubs established', and event-driven metrics such as 'number of households reached through RBF programmes' and 'number of customers participating in the experimental eCooking tariff programme', ensuring a dynamic and responsive evaluation process.
- *Multi-stakeholder involvement*: Responsibility for measuring and achieving these metrics is distributed among a broad array of stakeholders, including the Ministry of Energy and Petroleum, Kenya Power, the Energy and Petroleum Regulatory Authority, and local governments, reflecting a collaborative effort.
- *Consumer and supply chain enhancement*: Apart from promoting eCooking appliance adoption, the framework also focuses on cultivating a robust supply chain, enhancing financing ecosystems, and establishing a harmonized policy environment. This includes increasing market share for energy-efficient appliances, developing localized cooking solutions, and implementing specialized training programs.
- *Comprehensive impact assessment*: The evaluation extends beyond just electricity and appliance uptake to include environmental, health, and economic impacts, such as carbon emission reductions, morbidity and mortality improvements, job creation, and energy cost savings.

The Ministry of Energy and Petroleum will effectively monitor and evaluate the eCooking strategy by establishing a dedicated Clean Oversight Committee that covers both the KNCTS and KNeCS. This committee should consist of experts from relevant sectors, including energy, finance, technology, and community representation. The primary functions of this committee would include:

- Periodic meetings, preferably on a quarterly basis, to review progress, discuss challenges, and make adjustments to the strategy as needed.
- Performance tracking, utilizing a set of predefined key performance indicators (KPIs), to assess the progress of various components of the eCooking strategy.
- The committee should compile and present comprehensive reports biannually or annually to the Ministry, detailing the achievements, challenges, and recommendations for the future course of the strategy.

- Engage with stakeholders, including appliance manufacturers, distributors, financial institutions, and consumer groups, to gather feedback and insights that can inform strategy adjustments.
- Collaborate with external evaluators or auditors for an unbiased assessment of the strategy's impact, ensuring transparency and accountability.
- Utilize the findings from meetings and reports to make informed decisions and adapt the strategy to changing circumstances or new opportunities.

This structured approach would ensure consistent monitoring, enable timely responses to challenges, and help in achieving the strategic objectives of the eCooking strategy in Kenya.

58 Below is the performance measurement framework that will be used to assess progress.

59 *Table 3.1 Performance measurement framework for the eCooking strategy*

Strategic Objective	Performance Indicator	Parameter/ Unit of measure	Data Collection Method	Frequency of Measurement	Responsibility	Base line value	YR 1	YR 2	YR 3	YR 4	YR 5
Promote eCooking in Kenya to stimulate electricity demand, thereby linking clean cooking with broader electrification goals.	Percentage increase in grid capacity	Megawatts (MW) of installed electricity capacity, Megawatt-hours (MWh) of electricity generated.	Kenya Power and Energy and Petroleum Authority reports	Annually	Ministry of Energy and Petroleum (MoEP), Kenya Power, Energy and Petroleum Regulatory Authority (EPRA), KENGEN and other key stakeholders.						
	Number of households with Tier 3+ electricity connections	Number/percentage of households	Household Survey, Kenya Power data	Annually	MoEP, KNBS, Kenya Power						
	Number of residential smart energy meters	Number of households	Interviews with Kenya Power, EPRA and Mini-grids developers and their reports	Annually	Mini-Grid Developers, Kenya Power						
	Percentage reduction in grid system losses as informal connections reduce	System Loss Rate (percentage)	Kenya Power, EPRA reports	Annually	Kenya Power						
	Households with improved wiring to support eCooking	Number of households	Household surveys	Annually	MoEP and KNBS						
	Number of higher-capacity Solar Home Systems	Percentage/number of households	Household surveys, data from SHS	Annually	Ministry of Energy and Petroleum (MoEP)						

			providers and manufacturers								
	Number of grid- or mini-grid connections bundled with eCooking appliances	Count	EPRA /Kenya Power reports analysis, developer data and AMDA reports analysis/ interview with developers	Annually	Kenya Power and Mini-Grid developers						
	Number SHS with cooking appliances in the market	Count	Field surveys/ retailers interviews	Annually	Energy and Petroleum Regulatory Authority (EPRA), Solar Energy Companies						
	Number of households with battery-supported eCooking systems	Count	Household surveys	Annually	MoEP, KNBS						
	Total electricity demand stimulated from eCooking	Total increase in electricity consumption (kWh)/ Total additional revenue generated for Kenya Power (Kshs)	Analysis of Kenya Power reports/ Kenya Power interviews	Annually	Kenya Power						
	Typical consumption of cooking a standardised meal with most popular EPCs/induction stoves	kWh	Controlled tests	Event-driven	Testing labs						
	Typical cost of cooking a	KES	Controlled tests	Event-driven	Testing labs						

	standardised meal with a standardised EPC/induction stove										
	eCooking tariff deployed by Kenya Power	Binary (yes/no)	Kenya Power documents review/ Kenya Power interviews	Event-driven	Energy and Petroleum Regulatory Authority (EPRA) and Kenya Power.						
	Average household energy cost savings from eCooking tariff	Kenya Shillings	Kenya Power documents review/ Kenya Power interviews / Impact evaluations	Event-driven	Energy and Petroleum Regulatory Authority (EPRA), Kenya Power, Households						
	Impact on peak electricity demand of eCooking tariff	kilowatts (kW) or megawatts (MW)	Kenya Power documents review/ Kenya Power interviews	Event-driven	Energy and Petroleum Regulatory Authority (EPRA) and Kenya Power.						
	Rate of uptake of eCooking tariff	Percentage of households	Kenya Power documents review/ Kenya Power interviews	Event-driven	Energy and Petroleum Regulatory Authority (EPRA) and Kenya Power.						
To cultivate a robust, integrated, and consumer-centric supply chain for eCooking, focusing on promoting local manufacturing, enhancing distribution mechanisms, ensuring user-friendly product localization, and	Number of new eCooking hubs established	Count	Documentation review, registrar interview	Annually	Ministry of Energy and Petroleum (MoEP), County Governments, Kenya Power and relevant stakeholders.						
	Increase in the market share of energy-efficient eCooking appliances	Percentage	Household Surveys, sales and distribution records	Annually	Ministry of Energy and Petroleum (MoEP)						
	Import volumes of eCooking appliances	Count	Import data	Annually	Kenya Revenue Authority, retailers and distributors						

strengthening after-sale services.	Number of appliances sold in the market	Count	Survey of retailers	Annually	MoEP, KNBS, Retailers						
	Number of new localised Electric Pressure Cookers or Induction Cookers developed and launched in the market.	Count	Products tracking, market surveys, industry reports	Annually	Ministry of Investments, Trade, and Industry, Appliance Manufacturers						
	Number of after-sales facilities established	Count	Manufacturers, distributors, and service providers database analysis, customer surveys	Annually	Local Electric Cooking Appliance Manufacturers, Ministry of Energy and Petroleum (MoEP)						
	Number of local eCooking appliance manufacturers attracted to the industrial parks	Count	Manufacturer surveys/ Industrial Park Authority reports	Annually	Ministry of Investments, Trade, and Industry, Industrial Park Authorities.						
	Number of new jobs created within the eCooking appliance manufacturing sector in industrial parks.	Count	Industrial Park Authority reports/ Key stakeholder interviews	Annually	Industrial Park Authorities, Ministry of Labour and Social Protection						
	Number of eCooking appliances available with integrated smart metering capability on the Kenyan market	Number of eCooking appliances units with integrated smart metering	Field surveys/ retailers interviews	Annually	Local manufacturers and retailers						
	Number of locally assembled eCooking appliances available	Total number of eCooking appliances brands	Field surveys/ retailers interviews	Annually	Ministry of Energy and Petroleum (MoEP), Local manufacturers						

	on the Kenyan market	assembled locally, total number of assembling plants for eCooking appliances.									
	Number of locally manufactured eCooking appliances available on the Kenyan market		Field surveys/ retailers and manufacturers interviews	Annually	Retailers and Manufacturers						
	Specialised eCooking module developed for TVETs	Binary (yes/no)	Assessment survey for TVET institutions, interviews, Curriculum reviews	Annually	TVET institutions, The Technical and Vocational Education and Training Authority (TVETA)						
	Number of TVET institutions integrating specialized eCooking modules.	Count with eCooking integration	Assessment survey for TVET institutions, Curriculum reviews	Annually	The Technical and Vocational Education and Training Authority (TVETA)						
	Number of industry collaborations established for internships and insights.	Number of industry collaborations for internships/ number of internship opportunities created	Expert interviews	Annually	TVETs, Appliance manufacturers and retailers						
	Number of women entrepreneurs trained through accelerator programs.	Percentage increase in/ number of women entrepreneurs trained/numbe	Data from program records, program surveys	Event driven	State Department for Micro, Small and Medium Enterprises (MSMEs), Ministry of Cooperatives and						

		r of accelerator programs for women entrepreneurs			MSME Development.						
	Average retail price of induction stoves & EPCs	Average retail price per unit (Kshs)/ Percentage change in average retail price	Field surveys/ retailers and manufacturers interviews/ online platforms, e-commerce websites, and manufacturer websites analysis	Quarterly	Appliance retailers and manufacturers in collaboration with the Kenya Revenue Authority (KRA)						
To enhance the financing ecosystem that empowers both consumers and suppliers to actively participate in the eCooking market.											
	Number of households reached through RBF programmes	Number of households	Household surveys, community outreach, monitoring and evaluation reports from involved organisations	Event-driven	Ministry of Energy and Petroleum (MoEP) and key partners offering RBF financing						
	Number of households reached through the credit financing programme	Number of households	Household surveys, community outreach, monitoring and evaluation reports from involved organisations	Event-driven	Ministry of Energy in collaboration with Ministry of Finance						
	Number of households reached through the VAT waiver	Number of households	Tax and exemption records from KRA, appliance retailer records,	Event-driven	Kenya Revenue Authority (KRA)						

			Household surveys,								
	Number of partnerships formed with digital finance institutions, microfinance institutions, and other financial intermediaries.	Number/percentage increase of partnerships formed/ Value of financial transactions facilitated/	Records of the partnerships, interviews with financial institutions	Annually	Central Bank of Kenya (CBK), Kenya Renewable Energy Association (KEREA)						
	Number of registered vendors, MSMEs, SMEs, and other financial intermediaries actively participating in the interventions.	Number/percentage increase of registered vendors, MSMEs, SMEs/ Number of financial intermediaries engaged in capacity building	Registration portal and database	Annually	State Department for Micro, Small and Medium Enterprises (MSMEs), Ministry of Cooperatives and MSME Development.						
	Number of financial literacy workshops conducted.	Number of financial literacy workshops conducted/ number of participants attending financial literacy workshops	Workshop records, data from organisers	Annually	Ministry of Energy in collaboration with Ministry of Finance						
	Establishment of the eCooking Financing Consortium.	Formation and launch of the eCooking financing consortium/ number of	Consortium agreements, memoranda of understanding (MoUs) review/	Annually	Ministry of Energy and Petroleum (MoEP) in collaboration with Ministry of Finance, Kenya Revenue						

		participating financial institutions/ total consortium funding commitment	Stakeholder interviews		Authority and key stakeholders						
	Amount of funds mobilised by the eCooking consortium.	Kenya Shillings/US Dollars/Euros	Financial records and report audit/ interviews with involved parties	Quarterly	Ministry of Energy and Petroleum (MoEP) in collaboration with Ministry of Finance, Kenya Revenue Authority and key stakeholders						
	Number of new innovation grants issued for eCooking projects	Total number of new innovation grants issued/ number of grants issued by funding source/ total amount of funding allocated	Interviews with the relevant stakeholders/ grants documents and reports analysis	Quarterly	Ministry of Energy and Petroleum (MoEP), National Treasury						
	Volume of grant financing received for eCooking projects	Kenya Shillings/US Dollars/Euros	Grant documents audit/ key stakeholder interview	Quarterly	Ministry of Energy and Petroleum (MoEP), The National Treasury						
	Number of eCooking appliances available on PayGo on the Kenyan market	Count	Market surveys, retailer and distributor interviews/ PayGo companies interview	Annually	Local manufacturers, The Clean Cooking Association of Kenya (CCAK)						

	Number of new eCooking carbon projects registered	Count	Analysis of carbon registries/stakeholders survey	Annually	Ministry of Energy and Petroleum (MoEP)						
	Volume of carbon revenue received for eCooking projects	Total amount of carbon revenue received (USD)/ Total amount of carbon credits (tons of CO2 equivalent)	Analysis of carbon projects financial reports/ interview with key stakeholders/	Quarterly	Ministry of Energy and Petroleum (MoEP) in collaboration with the National Treasury						
	Opportunity cost of tax waivers for induction stoves & EPCs	Number of tax exemptions granted/ Total value of tax exemptions (Kshs)	Review of KRA tariffs/ interviews with KRA management	Annually	Kenya Revenue Authority (KRA)						
To establish a harmonized policy environment that robustly aligns eCooking with national clean cooking, electrification, climate change, health, and innovation objectives.	Carbon emission reduction from cooking	Metric tons of carbon dioxide equivalent or (MTCO2e)	Emission monitoring, baseline and post intervention measurements, remote sensing technologies	Annually/real time	Kenya Climate Change Directorate						
	Morbidity reductions	Percentage decrease in respiratory-related morbidity	Health facilities data, household health diaries and interviews, community health workers reports	Annually	Ministry of Health and other key stakeholders						
	Mortality reductions	Number of deaths averted due to respiratory and cardiovascular conditions	Health facilities data, household health diaries and interviews, community health workers reports	Annually	Ministry of Health and other key stakeholders						
	Reduction in climate-forcing	Metric tons of carbon dioxide	Emission monitoring,	Annually/real time	The Climate Change Directorate (CCD)						

	pollutants (in tons of CO2-equivalent)	equivalent or (MTCO2e)	baseline and post intervention measurements, remote sensing technologies								
	Unsustainable wood harvest avoided (kgs)	Kilograms/ Tonnes/ha per year	Baseline and endline surveys, Remote sensing and satellite imagery	Annually	Kenya Forest Service (KFS), Ministry of Environment						
	Number of policies that integrate eCooking	Number of eCooking-integrated policies developed	Policy tracking/stakeholder/ expert interviews	Annually	Ministry of Energy and Petroleum (MoEP) in collaboration with the Energy and Petroleum Regulation Commission (EPRA)						
To establish a rigorous, transparent, and consumer-friendly appliance standards ecosystem for eCooking.	Number of new or upgraded eCooking testing labs established.	Count	Establishment and certification records audit	Annually	Kenya Bureau of Standards (KEBS) in collaboration with the Ministry of Energy and Petroleum (MoEP)						
	Number of products certified and listed in the quality verification portal.	Total number of certified products	Data integration from quality verification portal	Real time	Kenya Bureau of Standards (KEBS)						
	Standardized national test methods for eCooking appliances established	Binary (yes/no)	Expert interviews	Annually	Kenya Bureau of Standards (KEBS), CLASP						
	Mandatory testing and labelling for eCooking appliances implemented	Binary (yes/no)	Expert interviews	Annually	Kenya Bureau of Standards (KEBS), CLASP, testing facilities, EPRA						

To foster a widespread acceptance and sustainable use of eCooking solutions across Kenyan households, by overcoming cultural, financial, and informational barriers.	Reach metrics of both above-the-line (ATL) and below-the-line (BTL) campaigns specifically for eCooking awareness.	Number of direct interactions (BTL)/ number of distributed information materials (BTL)	Media monitoring, web analytics, social media listening	Annual	Ministry of Energy and Petroleum (MoEP), Communication Authority of Kenya (CAK), Media Houses						
	Number of new primary eCooking households	Percentage/ Number of households	Household surveys	Annual	Ministry of Energy and Petroleum (MoEP) in collaboration with Kenya National Bureau of Statistics (KNBS)						
	Number of new secondary eCooking households	Percentage/ Number of households	Household surveys	Annual	Ministry of Energy and Petroleum (MoEP) in collaboration with Kenya National Bureau of Statistics (KNBS)						
	Number of new eCooking institutions (educational and health institutions, hospitality, food preparation industries/ business and correctional facilities; refugee holding stations/ humanitarian)	Percentage/ Number of Institutions	Institutions survey, Kenya Power reports,	Annual	Ministry of Energy and Petroleum (MoEP) in collaboration with Kenya National Bureau of Statistics (KNBS), Other stakeholders such as MECS, ACTS						
	Percentage of target audience adopting efficient eCooking	Percentage/ Number of households	Post-campaign surveys, in-depth interviews	Event-driven	Ministry of Energy and Petroleum (MoEP) in collaboration with						

	appliances post-campaign.				Kenya National Bureau of Statistics (KNBS)						
	Engagement metrics on these media advocacy initiatives (e.g., views, shares, comments).	Percentage increase in awareness levels.	Social media analytics, Web analytics	Real-time	Communication Authority of Kenya (CA), Media Houses in collaboration with the Ministry of Energy and Petroleum (MoEP)						
	Number of events, workshops, and exhibitions held focusing on eCooking technologies.	Number of events/ workshops and training sessions conducted	Events tracking, use of media monitoring tools, information from host organisations	Annually	Ministry of Energy and Petroleum (MoEP)						
	Number of traditional biomasses cookstoves replaced by eCooking appliances	Percentage/number of households/cookstoves	Household Surveys, campaign tracking, sales and distribution records	Annually	Ministry of Energy and Petroleum (MoEP)						
	Number of households reached through awareness campaigns and educational programs	Number of households	Household surveys, media monitoring	Event-driven	Ministry of Energy and Petroleum (MoEP), County Energy Centres						
	Reach metrics (e.g., number of impressions, interactions, and inquiries) for the campaigns.	Number of Impressions/ Engagement Rate/ Click-Through Rate (CTR)/ Conversion Rate/ Social Media Reach/ Web Traffic	Social media monitoring, surveys	Real time	Collaboration and coordination between relevant ministries that include the Ministry of Energy, Ministry of Environment and Ministry of Health						

		Metrics/ Media Coverage									
	Number of women employed in the eCooking value chain in Kenya.	Number/percentage increase of women employed	Interviews with value chain actors, employer records	Annually	Clean Cooking Association of Kenya (CCAK), Ministry of Energy and Petroleum (MoEP)						
	Number of customers participating in experimental eCooking tariff programme	Total number of customers participating	Review of customer enrolment and registration documents/ analysis of data from metering systems	Event driven	Kenya Power and the Ministry of Energy and Petroleum (MoEP)						
	Number of localised eCooking appliances available on the Kenyan market	Total number of ecooking appliances adapted for local cuisine.	Field surveys/ retailers interviews	Annually	The Clean Cooking Association of Kenya (CCAK), Local manufacturers						

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4. Stakeholder engagement plan

In the bid to scale up eCooking in Kenya, a cohesive stakeholder engagement plan serves as a vital blueprint for involving key players in the eCooking sector. The primary objective of this plan is to engage each stakeholder group effectively, with tailored strategies for doing so. This encompasses understanding the diverse interests and concerns of stakeholders, fostering consensus, addressing barriers, tailoring solutions to consumer needs, advocating for supportive policies, driving innovation, and maintaining adaptability. This overarching plan ensures that all stakeholders contribute collaboratively to make eCooking accessible and affordable in Kenya. The tables below delve into the specific objectives and strategies for engaging different stakeholder groups effectively, with the following highlights:

- For government actors such as the Ministry of Energy and Petroleum (MoEP), Energy and Petroleum Regulatory Authority (EPRA), and Kenya Power, the National Treasury the focus is on promoting the adoption of eCooking through policy development, tailored electricity tariff structures, and integrating eCooking technologies into the power distribution network. Collaborative partnerships and awareness campaigns are key strategies, alongside pilot projects and regulatory frameworks to incentivize eCooking adoption.
- Development partners and financiers like MECS, EnDev, and the World Bank are engaged through grant proposals and joint initiatives aimed at supporting eCooking projects, leveraging technical expertise, and supporting favourable policies.
- The private sector, including local manufacturers and mini-grid developers, is engaged to innovate and produce affordable eCooking appliances, with strategies to bridge the manufacturing gap and ensure widespread access to these technologies. Collaborative R&D, market assessments, and capacity-building workshops are employed to align products with consumer needs and preferences.
- Industry associations such as the African Mini-grid Developers Association (AMDA) and the Clean Cooking Association of Kenya (CCAK) are crucial for advocating the interests of their members and promoting the integration of eCooking solutions. Capacity-building workshops, information sharing platforms, and advocacy efforts aim to raise awareness and facilitate the adoption of eCooking technologies.
- Academia and research institutions are engaged to drive innovation and provide evidence-based recommendations through research partnerships, curriculum integration, and innovation challenges. Their work underpins the development of effective eCooking technologies and policies.
- Civil society organizations and media play a pivotal role in raising public awareness and promoting community engagement towards eCooking adoption. Collaborative campaigns, workshops, and educational programs aim to shift public perception and encourage behaviour change.

Overall, the stakeholder engagement plan for eCooking in Kenya is designed to create a collaborative ecosystem that leverages the strengths and resources of diverse stakeholders.

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43 4.1. Government Actors

44 *Table 4.1 Stakeholder engagement plan for government actors*

Stakeholder	Position in the eCooking Transition	Objectives	Engagement Strategies	Entry Point
Ministry of Energy and Petroleum (MoEP)	• Acknowledges the potential of eCooking and the need to encourage adoption.	• To promote the widespread adoption of electric cooking technologies, foster energy efficiency, and ensure sustainable energy access for all.	• Collaborate with MoEP to implement targeted awareness campaigns and educational programs focusing on the benefits of eCooking, emphasizing health, environmental, and economic benefits, while also providing practical training and workshops for communities and businesses to encourage the adoption of electric cooking technologies. • Facilitate the development of comprehensive policy frameworks and regulatory guidelines specifically tailored to support the growth of the eCooking sector, including incentives for research and development. • Foster strategic partnerships with international organizations and development agencies to access additional funding and expertise for the expansion of electric cooking initiatives, leveraging these partnerships to enhance research capabilities, technology dissemination, and the	• Establish collaborative partnerships with the Ministry of Energy to develop tailored financing mechanisms and incentive programs that encourage the adoption of eCooking technologies, providing financial institutions with access to preferential funding and regulatory support.

			establishment of pilot projects across different regions in Kenya.	
Energy and Petroleum Regulatory Authority (EPRA)	• Acknowledges the potential of eCooking and the need to encourage adoption. • The existing electricity tariff framework has no tailored eCooking tariff.	• To design and implement electricity tariff structures that incentivize the transition to electric cooking and establish and enforce regulatory standards and guidelines for safety, efficiency, and environmental sustainability.	• Propose a collaborative partnership to review and revise electricity tariff structures, highlighting the benefits of incentivizing the adoption of electric cooking technologies. • Organize workshops to facilitate dialogue between key stakeholders, including EPRA, on the importance of implementing supportive electricity tariff policies for clean cooking initiatives. • Offer technical expertise and consultation services to assist EPRA in developing tailored regulatory frameworks that encourage the integration of electric cooking into the national energy agenda. • Advocate for the inclusion of specific incentives and subsidies within electricity tariffs to promote the affordability and accessibility of electric cooking appliances and technologies for both urban and rural communities.	• Initiating a pilot program in select regions to assess the impact of adjusted electricity tariff structures specifically tailored to incentivize the adoption of electric cooking technologies, thereby demonstrating the potential benefits of electric cooking. • Develop research on the sensitivity of electricity prices concerning eCooking in select households to facilitate the creation of an off-peak tariff aimed at encouraging the use of surplus electricity during off-peak hours.
Kenya Power	• Actively advocating for eCooking through the Pika na Power initiative. • Positive public pronouncement by the top management	• To increase electricity consumption by connecting more households into the power distribution network, fostering the widespread	• Propose a collaborative partnership to integrate electric cooking technologies seamlessly into the existing power distribution network, highlighting the potential benefits for both Kenya Power and consumers. • Collaborate in pilot projects and cooking demonstrations to showcase the practical benefits and	• Partnering with electric cooking technology providers to pilot integrated electric cooking solutions in select regions, monitoring the impact of reduced eCooking tariffs on overall electricity consumption.

	encouraging adoption and pledging support to eCooking transition.	adoption of clean cooking solutions, and ensuring equitable and reliable energy access for households.	viability of incorporating electric cooking solutions within Kenya Power's current infrastructure. • Propose a multi-stakeholder engagement session with Kenya Power to advocate for the development of tailored electricity tariff plans that incentivize the adoption of electric cooking. • Explore the implementation of innovative billing and metering solutions to accurately monitor and manage the electricity consumption patterns associated with electric cooking.	
Rural Electrification and Renewable Energy Corporation (REREC)	• Collaborating with county governments to establish dedicated County Energy Centres with a focus on advancing clean cooking initiatives among other sustainable energy objectives.	• To integrate and promote the adoption of sustainable electric cooking technologies as part of the comprehensive rural electrification programs.	• Propose collaborative initiatives to integrate electric cooking technologies into future rural electrification projects. • Conduct targeted capacity-building workshops and training programs for local communities to promote awareness and understanding of the benefits of adopting electric cooking solutions in rural areas. • Establish a dedicated platform for ongoing dialogue and information sharing between REREC and key stakeholders, including electric cooking technology providers, to foster a comprehensive and integrated approach to rural electrification and electric cooking initiatives.	• Initiating targeted pilot projects in select rural communities, integrating sustainable eCooking technologies within ongoing rural electrification initiatives, to not only showcase the socio-economic benefits and environmental sustainability of eCooking solutions.
Kenya Revenue Authority (KRA)	• Exempting Value Added	• Implement tax incentives and	• Initiate collaborative discussions and advocacy efforts with KRA to	• Initiating discussions and consultations with key

	Tax (VAT) on renewable energy products, and clean cooking solutions, to support the universal access to electricity and bolster eCooking.	exemptions that encourage local manufacturing and importation of electric cooking appliances and technologies to promote the widespread adoption of eCooking solutions.	propose and implement tax incentives and exemptions for local manufacturing and the importation of energy-efficient eCooking appliances and technologies. • Conduct comprehensive research analysis on the potential economic and environmental benefits of providing tax incentives for eCooking solutions. • Establish a dedicated task force to facilitate ongoing communication and coordination between key stakeholders and KRA, emphasizing the importance of creating a supportive policy framework that encourages investment and innovation in the eCooking sector while ensuring compliance with tax regulations. • Advocate for the development of tailored tax relief programs and incentives that specifically target manufacturers, distributors, and consumers of electric cooking appliances, promoting affordability and accessibility of eCooking technologies.	stakeholders, including eCooking technology manufacturers and industry associations, to explore the feasibility and potential benefits of implementing targeted tax incentives and exemptions for eCooking appliances and technologies.
Kenya Bureau of Standards (KEBS)	• Supports eCooking appliances standards on quality and safety and has some standards in place.	• To establish and enforce comprehensive quality and safety standards for eCooking appliances and technologies.	• Conduct capacity-building workshops and training programs for industry stakeholders to raise awareness and understanding of the importance of adhering to established quality and safety standards.	• Engage key stakeholders, including eCooking technology manufacturers and industry associations, to assess the existing quality and safety standards for electric cooking appliances and technologies, with a focus on identifying

		• Foster the production of reliable, environmentally friendly, and efficient eCooking solutions that comply with international standards.	• Initiate collaborative discussions with KEBS to propose the development of comprehensive quality and safety standards specific to eCooking appliances and technologies, emphasizing the importance of ensuring product reliability and consumer protection within the sector. • Advocate for the implementation of streamlined certification and conformity assessment processes for eCooking products. • Establish a specialized task force or committee comprising industry experts and KEBS representatives to collaborate on the periodic review and enhancement of quality and safety standards for eCooking appliances and technologies.	potential areas for enhancement and the development of comprehensive regulatory frameworks. • Build local capacity for implementing eCooking appliances testing centres and strengthening the existing ones.
Ministry of Health (MoH)	• The Ministry of Health is actively championing clean cooking through introduction of the Facilitators' Guide for Community Health Volunteers (CHVs), designed to address Household Air	• Advocate for the adoption of clean and sustainable eCooking technologies to mitigate the health risks associated with traditional cooking methods.	• Conduct joint awareness campaigns and educational programs with the Ministry of Health to raise public awareness about the health risks posed by traditional cooking fuels. • Advocate for the inclusion of eCooking promotion initiatives within the Ministry of Health's public health policies and programs. • Partner with the Ministry of Health and use its network to foster collaborations with local healthcare facilities and community health workers to facilitate the dissemination of information and resources on the benefits of clean	• Initiating collaborative research and data collection initiatives with key stakeholders, including eCooking technology providers and healthcare experts, to assess the health impact of traditional cooking methods and the potential benefits of transitioning to eCooking technologies.

	Pollution (HAP) and associated health issues.		eCooking practices and encouraging behavior change among vulnerable populations.	
County Governments (Ministry of Energy)	County Energy Centres provide comprehensive programs that include renewable energy, technology demonstrations, and training that span various clean cooking technologies.	• To spearhead the integration of eCooking solutions and sustainable energy policies at the county level.	• Facilitate inclusive policy dialogues and consultation forums, organized with the support of SETA, bringing together key stakeholders, including county officials, community leaders, and energy experts, to discuss the challenges and opportunities associated with the adoption of eCooking technologies at the local level. • Establish demonstration projects and pilot initiatives and county-level awareness programs to educate local communities about the importance and benefits of these initiatives. • Engage the county governments to develop targeted communication and awareness campaigns ON eCooking tailored to the specific customs, needs and preferences of local communities.	• Collaborating with the Sustainable Energy for All (SEforALL) initiative, SETA Program and other relevant players to encourage and support more counties in developing their own customized county energy plans and integrating eCooking initiatives into those plans.
Ministry of Environment	• Explores a strategy that entails modernizing and commercializing traditional fuels while also endorsing the	• To promote the adoption of sustainable cooking practices and technologies, fostering a transition towards clean energy solutions	• Collaborate with the Ministry of Energy and Petroleum (MoEP), KEBS and other stakeholders to develop and implement sustainable certification standards for eCooking appliances. • Partner with other stakeholders to launch green labelling initiatives industry stakeholders to establish	• Introduce targeted policy incentives and regulatory frameworks that encourage the integration of eCooking technologies within national environmental strategies, working in collaboration with industry stakeholders and research institutions to develop

	adoption of modern clean cooking technologies in the Strategic Plan 2023-2027.	to mitigate environmental degradation and reduce carbon emissions associated with traditional cooking methods.	guidelines for the eco-friendly manufacturing of eCooking appliances that highlight the environmental impact and energy efficiency of electric cooking appliances. • Collaborate with research institutions and other sector stakeholders to conduct comprehensive environmental impact assessments of eCooking technologies. • Collaborate on e-waste management programs for eCooking appliances, ensuring proper disposal and recycling. • Collaborate with MoEP to design appropriate carbon financing projects for eCooking.	sustainable certification standards, green labelling initiatives, and eco-friendly manufacturing guidelines for eCooking appliances.
Ministry of Planning and Finance (Treasury)	• Facilitating financial incentives, budget allocations, and policy frameworks aimed at promoting the adoption of sustainable and clean cooking technologies.	• Facilitate the creation of financial tools and incentives to attract private investments, stimulate innovation, specifically addressing the manufacturing gap and establishing sustainable financing mechanisms for	• Actively engage in public-private partnerships with the private sector, leveraging public funds to attract private investments in eCooking projects, infrastructure development, and technology dissemination, ensuring a collaborative and mutually beneficial approach. • Work with the MoEP to create a dedicated Clean Energy Fund within the national budget, specifically earmarked for supporting eCooking initiatives, fostering a sustainable financial ecosystem that aligns with Kenya's environmental and energy goals.	• Establish and expand financial instruments, tax incentives, and public-private partnerships that promote investments in the eCooking sector, facilitating economic growth, innovation, and widespread adoption of sustainable cooking solutions in Kenya.

		the industry's expansion.	• Collaborate with the Ministry of Energy and other stakeholders to design and implement innovative financing models tailored for the eCooking sector, including low-interest loans, tax incentives, and grants to encourage private sector investments in research, development, and manufacturing.	

4.2. Development partners and financiers

Table 4.2 Stakeholder engagement plan for development partners and financiers

Stakeholder	Position on the eCooking Transition	Objectives	Engagement Strategies	Entry Point
Foreign Commonwealth Development Office (FCDO), United States Agency for International Development (USAID), European Union (EU), etc	• Actively funding and collaborating on projects to advance clean energy transition and reduce indoor air pollution.	• To promote sustainable and inclusive development by supporting initiatives that promote clean cooking solutions, reduce environmental impact, and enhance energy access for all.	• Develop grant proposals for development partners, outlining the strategy's goals, expected outcomes, and funding requirements. • Collaborate with development partners to tap into their technical expertise for capacity-building programs, research, and innovation. • Explore joint initiatives with development partners, including pilot projects, impact assessments, and knowledge sharing.	• Establish partnerships with development partners to create funding initiatives specifically dedicated to eCooking projects, focusing on technology adoption, infrastructure development, and awareness campaigns. • Engage development partners in advocating for favorable policies and incentives for the electric cooking sector, promoting a conducive regulatory environment for growth.
Modern Energy Cooking Services programme,	• Actively supporting Kenya's	• To foster collaboration between key	• Continue to support partnerships between these actors and MoEP and other sector stakeholders, leveraging	• Collaborate on comprehensive market assessments to identify

Energizing Development (EnDev), The French Development Agency (AFD), The Global Energy Alliance for People and Planet (GEAPP), Sustainable Energy for All (SEforAll)	eCooking sector through providing technical assistance, financing, and facilitating partnerships to enhance the adoption of clean and efficient cooking solutions.	stakeholders, implement capacity-building programs, and support policy frameworks conducive to the growth of the sector. • To advance research, innovation, and knowledge exchange to accelerate the widespread adoption of clean and efficient cooking technologies.	their expertise in sustainable development, to co-create and implement projects that promote the adoption of electric cooking technologies. • Design programs that align to their funding priorities, encouraging them to invest in projects that accelerate the adoption of eCooking in Kenya. • Develop joint research and development projects between these development partners and eCooking stakeholders to explore innovative solutions, to improve product efficiency, affordability, and accessibility.	gaps and opportunities in the eCooking sector. • Develop joint pilot projects to test and demonstrate the viability of eCooking solutions. • Develop joint capacity-building programs aimed at enhancing the skills of local technicians, entrepreneurs, and maintenance of eCooking technologies.
The Energy and Environment Partnership Trust Fund (EEP Africa)	Acknowledges the need for clean energy transition and through financing clean energy projects	To enhance investment readiness and business development support for electric cooking projects in Kenya through targeted technical assistance, networking opportunities, and knowledge exchange forums, thereby fostering an inclusive, innovative, and resilient clean energy sector and promoting the widespread adoption of sustainable and efficient cooking solutions across diverse communities.	• Initiate collaborative discussions with EEP Africa to propose the development of funding opportunities and grant mechanisms specifically tailored to support the implementation of electric cooking projects and technologies in Kenya, emphasizing the importance of promoting sustainable energy solutions and fostering the widespread adoption of clean cooking practices across the country. • Participate in EEP Africa's Knowledge Exchange Forums and Investment Facilitation Events, aiming to showcase the potential impact of electric cooking initiatives on sustainable development and environmental conservation, and advocating for the integration of electric cooking promotion programs within EEP Africa's investment and technical support framework.	• Initiating targeted consultations and partnership discussions with key stakeholders, including electric cooking technology developers, clean energy organizations, and government agencies, to assess the current landscape of electric cooking initiatives in Kenya, with a focus on identifying potential areas for funding and investment support.

			• Leverage EEP Africa's network and partnerships to showcase success stories and impact assessments of electric cooking projects supported by the fund, emphasizing the role of EEP Africa in fostering an inclusive, innovative, and resilient clean energy sector, and promoting the adoption of sustainable cooking practices and technologies among various stakeholders and communities in Kenya.	
World Bank, Africa Development Bank	Providing financial and technical support to bolster Kenya's electricity sector, with one of the focuses being to increase access to transition households to clean and sustainable energy sources.	Increase electricity access to enable transition towards eCooking and reduce reliance on dirty fuels.	• Collaborate with AfDB's Last Mile Electrification Programme to embed eCooking in Phase 2 of the project. • Collaborate with the AfDB to establish a dedicated fund for supporting eCooking initiatives. This fund could offer concessional loans, grants, or innovative financing mechanisms to boost investments in the eCooking sector. • Engage AfDB to develop capacity-building programs aimed at local businesses, entrepreneurs, and manufacturers involved in the production and distribution of electric cooking appliances. • Collaborating to conduct a comprehensive study on the eCooking sector to identify the gaps and opportunities for innovation and technology adoption. This can involve supporting research institutions, innovation labs, and startups.	• Suggest collaborative initiatives that involve capacity-building programs for local communities, entrepreneurs, and technicians in the eCooking sector. • Highlight the link between eCooking initiatives and climate change mitigation and showcase how supporting the eCooking sector aligns with their climate finance objectives, emphasizing the positive impact on reducing deforestation and greenhouse gas emissions.
Commercial Banks and Microfinance Institutions	• Local banks and microfinance institutions	• To facilitate access to tailored financial products and	• Establish specialized financing programs and credit facilities tailored to the needs of local electric cooking businesses,	• Participating in knowledge exchange programs and investment forums to

	have been providing financial support, innovative financing mechanisms to support household purchase of appliances among them eCooking appliances.	services that support the growth of local electric cooking businesses and enable the adoption of sustainable cooking technologies.	collaborating with industry stakeholders and regulatory bodies to design flexible and accessible financial solutions that support the acquisition of electric cooking appliances, business expansion, and technological innovation.	develop tailored financial products, positioning local banks and microfinance institutions as key contributors to the sustainable growth of the electric cooking sector, fostering partnerships and boosting their market influence and credibility.
PayGo service providers (e.g., M-Kopa, StimaCo, Angaza)	• PayGo service providers have been actively providing scalable and affordable financing solutions for households, to enhance financial inclusion and access to modern electric cooking technologies.	• Leverage their innovative Pay-As-You-Go financing approach and customer-centric distribution networks to provide more affordable and reliable electric cooking appliances and services to off-grid and low-income households.	• Facilitate knowledge-sharing workshops and capacity-building initiatives with PayGo service providers to develop tailored financing plans for electric cooking appliances to reach low-income households. • Advocate for the customization of PayGo service models to include comprehensive after-sales support, product warranties, and technical training programs for customers, focusing on building consumer trust and ensuring the effective use and maintenance of electric cooking appliances.	• Forge strategic partnerships with local cooking appliance manufacturers and distributors to integrate electric cooking solutions into their existing PayGo service portfolios. • Collaborate with relevant government agencies and non-profit organizations to establish pilot initiatives and demonstration projects that showcase the affordability and benefits of PayGo-enabled electric cooking appliances, demonstrating the viability of PayGo models in fostering the widespread adoption of clean cooking

				technologies across diverse socio-economic segments.

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4.3. Industry associations

Table 4.3 Stakeholder engagement plan for industry associations

Stakeholder	Position on the eCooking Transition	Objectives	Engagement Strategies	Entry Point
AMDA (African Mini-grid Developers Association) **The Clean Cooking Association of Kenya (CCAK)** **Global Off-Grid Lighting Association (GOGLA)** **Kenya Renewable Energy Association (KEREA)**	• AMDA has been advocating for inclusion of eCooking by Mini-grid developers. • CCAK has been championing for a supportive ecosystem on both national and county fronts to accelerate the advancement of the clean cooking sector. • GOGLA has been supporting off-grid electrification and campaign for accelerated clean energy transition.	• Advocate for the interests of mini-grid developers and promoting the adoption of sustainable energy solutions within the eCooking sector. • To promote and advocate for the adoption of sustainable eCooking technologies by encouraging mini-grids developers to incorporate eCooking in their plans.	• Conduct joint capacity-building workshops and training programs to enhance the understanding of mini-grid developers on the potential synergies between mini-grid electrification and the promotion of eCooking solutions. • Establish a dedicated platform for ongoing dialogue and information sharing between the associations and key stakeholders, including eCooking technology providers and government agencies, to foster collaboration and knowledge exchange on best practices and innovative approaches for eCooking. • Use the industry association's network and expertise to facilitate the dissemination of information and resources on the benefits of eCooking solutions among mini-grid developers and rural communities. • Advocate for the inclusion of eCooking promotion programs within the associations' outreach initiatives, emphasizing the importance of integrating eCooking technologies as part of a comprehensive clean cooking strategy. • Foster a collaboration between the associations and other industry players to conduct targeted awareness campaigns in	• Initiating collaborative discussions and partnerships with key stakeholders, including eCooking technology providers and renewable energy organizations, to explore the integration of eCooking solutions within mini-grid electrification projects.

			rural and urban communities, providing information on available resources and incentives for adopting cleaner cooking practices.	

4.4. cademia and research institutions

Table 4.4 Stakeholder engagement plan for academia and research institutions

Stakeholder	Position on the eCooking Transition	Objectives	Engagement Strategies	Entry Point
Strathmore Energy Research Center (SERC), Energy Research Institute (ERI), African Centre for Technology Studies (ACTS), International Centre for Research in Agroforestry (ICRAF), Kenya Climate Innovation Center (KCIC),	• Academia and research institutions have been contributing to the acceleration of electric cooking in Kenya through extensive research, knowledge dissemination, and technological	• Drive research and innovation in electric cooking technologies. • Develop a skilled workforce equipped to support the electric cooking ecosystem. • Conduct comprehensive studies and provide evidence-based recommendations that facilitate the	• Partner with academic institutions to conduct research on electric cooking technologies, consumer behaviour, and policy effectiveness. • Work with universities to incorporate clean energy and electric cooking topics into their curricula, fostering a pipeline of skilled professionals. • Organize innovation challenges or competitions focused on electric cooking solutions, encouraging students and researchers to develop innovative products and technologies.	• Establishing collaborative partnerships and joint research initiatives between these institutions and local electric cooking technology developers or manufacturers to conduct in-depth studies and pilot projects aimed at assessing the performance, impact, and user experience of electric cooking technologies within

Practical Action Eastern Africa, Energy 4 Impact Kenya, etc.	advancements in the sector.	integration of innovative technologies and sustainable practices, ultimately contributing to the advancement of clean energy solutions and the promotion of environmentally friendly cooking methods across diverse communities in the country.		various households and regions to enable them to provide valuable insights and data-driven recommendations that can inform the development of sustainable energy policies and effective implementation strategies for scaling up electric cooking solutions across the country.

4.5. Private sector and innovation labs

Table 4.5 Stakeholder engagement plan for private sector and innovation labs

Stakeholder	Position on the eCooking Transition	Objectives	Engagement Strategies	Entry Point
Local eCooking appliance manufacturers and assemblers (e.g., Burn Manufacturing)	• Actively driving increased adoption by innovating affordable and efficient appliances, conducting educational	• To bridge the manufacturing gap by producing affordable and high-quality eCooking appliances tailored to the specific needs	• Collaborate with local research institutions and industry associations to conduct market assessments and identify specific consumer needs and preferences, facilitating the development of tailored eCooking appliances that address the unique challenges and requirements of the Kenyan market.	• Investing in Research and Development (R&D) partnerships with local universities and technology institutions to foster product innovation and technology and develop eCooking appliances tailored to the

	campaigns, fostering partnerships, building local capacity, and advocating for supportive policies in Kenya's eCooking sector.	and preferences of the local population.	• Establish partnerships with county governments and community-based organizations to organize product demonstrations and educational workshops, showcasing the practical benefits and functionality of eCooking appliances, while also providing comprehensive training on maintenance and usage.	needs and preferences of Kenyan consumers.
Mini-grid developers	• Advancing eCooking adoption in Kenya through the expansion of renewable energy infrastructure, community outreach, integrating eCooking into mini-grids, and other collaborative initiatives with stakeholders.	• To implement an integrated and scalable infrastructure that effectively incorporates smart metering technology within reliable mini-grid systems. • Ensure widespread access to affordable and sustainable eCooking solutions within mini-grids.	• Collaborate with mini-grid developers to conduct training programs and capacity-building initiatives for them to enhance their understanding of eCooking technologies, market dynamics, and consumer preferences. • Encourage mini-grid developers to integrate eCooking into their system and facilitate access to markets for them by connecting them with electric cooking appliance manufacturers, distributors, and retailers. • Facilitate partnerships between mini-grid developers and research institutions to jointly explore and develop innovative eCooking technologies suitable for off-grid settings. • Facilitate access to funding sources, grants, or investment opportunities specifically earmarked for mini-grid projects that include eCooking components.	• Organize workshops bringing together mini-grid developers, eCooking appliance manufacturers, and key stakeholders to foster understanding and collaboration. • Launch an innovation challenge inviting mini-grid developers to propose and implement innovative eCooking solutions within their energy projects.
Innovation labs (e.g., UoN FabLab, Gearbox, Mideva), Kenya Climate	• Actively engaged in developing and promoting technologies	• To foster a culture of continuous innovation and collaboration by	• Collaborations to establish dedicated programs focused on developing innovative eCooking solutions. This entails leveraging their expertise in technology	• Establish strategic partnerships between industry stakeholders, government bodies, and innovation labs to create a

Innovation Center (KCIC),	that reduce indoor air pollution.	providing a conducive environment for research, development, and prototyping of cutting-edge eCooking technologies, thereby driving sustainable energy solutions.	demonstrations and prototyping to design cutting-edge eCooking appliances. • Develop funding and grants schemes to innovation labs for research and development of eCooking technologies. • Establish a platform to provide recognition and visibility for successful innovations, fostering a competitive environment. • Facilitate partnerships with industry players to scale up promising eCooking innovations.	collaborative ecosystem and actively involve innovation labs in the planning and implementation of eCooking initiatives.

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4.6. Civil Society Organizations (CSOs) and media

Table 4.6 Stakeholder engagement plan for Civil Society Organizations (CSOs) and media

Stakeholder	Position on the eCooking Transition	Objectives	Engagement Strategies	Entry Point
Electricity Consumers Society (ELCOS), Greenpeace Africa – Kenya, Pan African Climate Justice Alliance (PACJA) - Kenya Chapter, Kenya Climate Action Network (KCAN)	• CSOs have been advocating for policy changes, conducting awareness campaigns, and facilitating community engagement to support the adoption of clean cooking in Kenya	• Raise public awareness about the benefits of electric cooking. • Promote community engagement and behaviour change towards adopting electric cooking.	• Partner with CSOs to launch targeted awareness campaigns using various media platforms, including radio, TV, and social media. • Organize workshops in rural and urban areas, demonstrating the benefits of electric cooking and addressing concerns. • Collaborate with CSOs focused on women's empowerment to integrate electric cooking awareness into their programs.	• Collaborate with CSOs to create awareness campaigns, community outreach, and policy advocacy, offering incentives such as capacity-building workshops, research collaborations, and recognition for their contributions to sustainable development.
KPLC's Pika na Power, Renewable Energy Association of Kenya (REAK), Kenya Climate Action Network (KCAN). TV, Radio and social media.	• Actively supporting the acceleration of eCooking in Kenya by promoting awareness, influencing policies, and fostering collaborations to advance the adoption of clean cooking technologies.	• Amplify awareness about electric cooking benefits and adoption. • Shape public perception and promote behaviour change towards electric cooking.	• Collaborate with media outlets to run sustained awareness campaigns, including documentaries, articles, interviews, and infographics. • Engage influential personalities to champion electric cooking through public service announcements and social media. • Organize public debates or panel discussions involving experts, policymakers, and influencers to discuss the role of electric cooking in Kenya's energy future.	• Bring in the advocacy groups to help create and run a sustained awareness campaign. • Collaborate with media outlets to run targeted awareness campaigns on the benefits of electric cooking, featuring success stories and case studies.
Women's and Youth Groups	• These groups have been vocal in creating	• To foster local entrepreneurship and skill	• Establish community-led training programs and capacity-building workshops in collaboration with women's	• Identify vocal local women and youth group and invite them to participate in

	awareness and educating community members on merits of clean cooking, among them eCooking	development within their communities by promoting the adoption of electric cooking technologies.	and youth groups, focusing on the practical aspects of electric cooking technology. • Organize interactive community events and awareness campaigns in collaboration with these groups to highlight the socio-economic and environmental benefits of electric cooking solutions promoting clean energy practices and fostering behavioural change. • Facilitate access to micro-financing and grant opportunities and formation of collaborative networks and value chains that connect with electric cooking appliance retailers and distributors to women's and youth groups. • Form strategic partnerships with these groups to co-create and distribute educational materials and informative resources that promote the benefits and best practices of electric cooking.	training, mentoring, and financial incentives, thereby incentivizing active participation and promoting through highlighting the opportunities for them in promoting electric cooking in their communities.
Influencers	• Though limited activities, food influencers have been creating awareness by using eCooking appliances in their activities.	• To raise awareness about the benefits and accessibility of electric cooking solutions while promoting local electric cooking appliance manufacturers.	• Collaborate with food bloggers and social media influencers and for virtual cooking demos and interactive webinars showcasing the convenience of electric cooking appliances. Emphasize their efficiency, sustainability, and culinary flexibility to help influencers create compelling content for a diverse audience. • Establish partnerships with popular food bloggers to develop engaging multimedia campaigns and storytelling initiatives that showcase the unique opportunities within the Kenyan electric cooking sector. • Host collaborative networking events and influencer meet-ups that bring together	• Participating in collaborative brand ambassador programs and affiliate marketing initiatives with local electric cooking appliance manufacturers and distributors, providing food bloggers and influencers with exclusive access to new product releases, promotional discounts, and affiliate partnerships, thus incentivizing them to endorse and advocate for

			key stakeholders from the electric cooking industry, including manufacturers and distributors with prominent food bloggers and influencers, creating a platform for knowledge exchange, idea sharing, and partnership building. • Launch targeted advocacy campaigns and social impact initiatives with clear messages in partnership with food bloggers and influencers to promote the adoption of electric cooking technologies among local communities.	electric cooking technologies through their online platforms and social media channels, while also enabling them to generate additional income streams and foster long-term partnerships with reputable industry players within the Kenyan electric cooking sector.

By engaging these stakeholders, the government can harness their collective efforts to tap into the potential for scaling up eCooking.

5. Investment Overview

5.1. Costs

This section presents a detailed financial outlay of the investment required to implement the Kenya National eCooking Strategy. Spanning various strategic interventions, the investment plan is structured to cover all critical aspects of the eCooking initiative between 2024 and 2028. The costs are categorized into systemic enablers, manufacturing and assembly plant setup, quality standard enhancements, training programs, institutional capacity building, and market development activities. Each category outlines specific interventions and their associated costs to provide a clear picture of the financial requirements for the strategy's successful execution.

In summary, the grand total for strategy implementation costs stands at USD 58,009,440 (equivalent to KES 9,281,510,400).

Table 5.1 Strategy implementation costs

Systemic enablers	5 years
National eCooking Consortium set-up costs	
Setup Costs (one-off)	
Legal and Regulatory Compliance	35,700
Office Setup and Infrastructure	71,500
Initial Staffing and Training	35,700
Subtotal - Setup Costs	**142,900**
Operational Costs	
Personnel Salaries	890,000
Office Rent and Utilities	178,000
Travel and Logistics	178,000
Legal and Accounting Services	36,000
Miscellaneous Expenses	175,000
Subtotal - Operating costs	**1,457,000**
Annual Advisory Board Costs	446,000
Annual Investment Summits Costs	535,700
Monitoring & Evaluation Costs	250,000
Total Estimated Cost	**2,831,600**
2 Manufacturing/assembly plant for eCooking appliances in an industrial park	
Initial Setup Costs	
Land Acquisition or Lease Costs	164,000
Construction and Infrastructure Setup	1,640,000
Technology and Equipment Purchase	820,000
Operational Licenses and Permits	82,000
Initial Raw Material and Components Stock	492,000
Workforce Training and Salaries	656,000

Quality Control and Certification	164,000
Marketing and Distribution	328,000
Contingency and Miscellaneous Expenses	434,600
Subtotal - Initial Setup Costs	**4,780,600**
Operational costs for 3 years	
Annual Running Costs (3 years)	1,800,000
Staffing Costs (3 years)	3,000,000
Importation Costs (3 years)	1,200,000
Support costs	
Project Advisory and Supervision by Ministry of Energy (3 years)	600,000
Support for Local-International Partnerships	400,000
Setting Up and Managing Collaboration with TVET Institutions	300,000
Regulatory Oversight and Sustainable Practices	200,000
Total Estimated Cost (for First 3 Years)	**11,480,600**
Strengthening appliance quality standards	
Consultants for Designing Test Methods, Labelling, and Certification Schemes	150,000
Development of Quality Verification Portal	70,000
Establishing Standardized National Test Methods	150,000
Training and Workshops for Quality Assurance	70,000
Total Estimated Cost	**440,000**
Training programmes	
Vocational Training in TVETs:	
Development of curriculum (one-time cost):	25,000
Equipment for practical training (one-time cost):	150,000
Facilitating collaboration with manufacturers and energy tech companies:	50,000
Women entrepreneurship in eCooking:	
3-month accelerator program costs:	375,000
Marketing & Outreach:	50,000
Financial literacy programs for women:	
Workshop Costs (20 workshops/year):	50,000
Material & Kit:	15,000
Institutional Capacity Building Programmes	
Infrastructure upgrades for testing facilities:	
Equipment acquisition (one-time cost):	200,000
Technical staff hiring (3 experts for 1 year):	175,000

eCooking Hubs:		
Support for existing hubs (6 existing hubs):		1,050,000
Establishment of new hubs (one-time cost):		150,000
Total Estimated Costs		**2,290,000**
TOTAL COSTS (SYSTEMIC ENABLERS)		**17,042,200**
eCooking pilot programme(s) (e.g., eCooking Tariff, Carbon project)	3 years	
Costs to be determined by scale of programmes		
Grid intensification and expansion; Off-grid investments	3 years	
Costs to be calculated in subsequent strategy activities		
Market development activities		
Behaviour Change Communication (BCC)	2 years	
Program Implementation Cost		3,925,119
Total Government Cost		**3,925,119**
Credit Financing Program (appliance loans)	5 years	
Program Implementation Cost		7,233,062
Stove Financing Cost		11,608,532
Total Government Costs		**18,841,594**
Subsidy Program (eCooking RBFs)	3 years	
Program Implementation Cost		2,075,465
Stove Subsidy Cost		10,249,131
Total Government Cost		**12,324,595**
Tax exemption for eCooking appliances *(VAT waiver)*	2 years	
Program Implementation Cost		5,875,932
Total Government Cost		**5,875,932**
TOTAL COSTS (DIRECT MARKET DEVELOPMENT)		**40,967,240**
GRAND TOTAL STRATEGY IMPLEMENTATION COSTS	**USD**	**58,009,440**
	KES	**9,281,510,400**

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5.2. Benefits

This table provides an overview of the cumulative benefits derived from household transitions from dirty fuels in their stacks to eCooking solutions based on the BCC, subsidy, VAT waiver and credit financing. The advantages are categorized into health and environmental benefits and overarching social gains in monetary terms.

Table 5.2 Health and environmental benefits from implementing the strategy

Health benefits	
Health Impact Total: DALYS Avoided	40,097
Mortality Reduction (YLL)	23,876
Mortality Reduction (Lives)	1,438
Morbidity Reduction (YLD)	10,168
Morbidity Reduction (Cases)	53,449
Impact on drudgery	
Average time savings (adopting household) (Hours)	3,607.10
Environmental benefits	
CO2-equivalent reduction (CO2, N2O, CH4, CO, OC, BC) in Tonnes	12,106,055
Unsustainable wood harvest avoided (Kgs)	1,566,078,001
Net Present Value of Social Benefits (Full Program) (USD)	**241,698,449**

The documented health impacts show a significant decrease in disease and mortality, with 40,097 Disability-Adjusted Life Years (DALYs) avoided, indicating a substantial improvement in public health. Additionally, adopting households are found to save an average of 3,607.10 hours, underscoring time efficiency gains from using eCooking solutions.

Environmental benefits are equally impressive, with a CO2-equivalent reduction tallying up to 12,106,055 tonnes. The transition also curtails unsustainable wood harvesting by over 1.6 billion kilograms, contributing significantly to forest conservation and reduction in deforestation rates.

The table also highlights the overarching social gains in monetary terms, with the Net Present Value (NPV) of social benefits from the full program estimated at USD 241,698,449. This value underscores the economic viability and far-reaching positive impacts of transitioning to eCooking solutions.

6. Resource Mobilisation Strategy

Accelerating the adoption of eCooking in Kenya requires a multi-faceted financing approach that not only facilitates the purchase of eCooking appliances and lowers tariffs, but also invests in the required infrastructure and technology.

Supply side financing helps to address the financial and operational challenges faced by businesses in the sector, including those who supply cooking appliances and fuels. These mechanisms can help enterprises overcome market barriers and reduce risks of market entry and scale up, particularly for clean cooking technologies (Clean Cooking Alliance, 2018). Supply side costs include research and development costs associated with designing, testing, and refining electric cooking appliances, capital costs related to production such as manufacturing and quality control, costs of distribution and logistics, and marketing, promotion and consumer support costs (Puzzolo et al., 2019). For electric cooking, supply side costs include the costs incurred by energy service companies such as utilities, mini grid developers and SHS companies to extend electricity access.

6.1. Strategic Financing Channels

Scaling eCooking in Kenya will require diverse types of capital, each serving different needs and stages of the eCooking sector's development. Below is a table that outlines various capital channels along with the types of capital they typically provide.

Table 6.1 Capital channels and types of capital

Capital Channel	Types of Capital Provided	Description	Opportunities
Grants	Non-repayable funds	Often used for initial research, pilot projects, and subsidizing costs for low-income consumers. Grants do not require repayment, making them ideal for high-risk, early-stage eCooking ventures. Examples include: ▪ UK Aid's MECS grants for early-stage research and innovations ▪ GIZ's EnDev and Green Climate Fund grants. ▪ NEFCO's Modern Cooking Facility for Africa for R&D, market expansion. ▪ Efficiency for Access Coalition's R&D projects. ▪ ENGIE Africa's grants for Electric Cooking Solutions testing.	▪ Global eCooking Electric Cooking Coalition (GeCCo): Utilize the network of GeCCo, which includes anchor partners like The Global Energy Alliance for People and Planet (GEAPP), Energising Development (EnDev), the Modern Energy Cooking Services (MECS) programme, and Sustainable Energy for All (SEforALL), to advocate for and mobilize climate-linked funds that focus on clean cooking. ▪ Green Climate Fund: GCF aim is to expand collective human action to respond to climate

		▪ BURN Manufacturing's seed grant from Clean Cooking Alliance and support from General Electric, OPIC. ▪ EnDev's RBF programs (e.g., Solar PV Hybrid Mini-Grids, Pico PV RBF, Higher Tier Cookstoves Market Acceleration project). ▪ Africa Biogas Partnership Programme and KOSAP. ▪ EnDev/CLASP EPC RBF program to promote electric pressure cookers. ▪ NEFCO's Modern Cooking Facility for Africa including new electric cooking RBF schemes.	change by mobilizing funds at scale to invest in low-emission and climate-resilient developments. The Government of Kenya could partner with the German Agency for International Cooperation (GIZ) to develop compelling proposals for scaling eCooking aimed at securing financing from GCF. ▪ Climate Compatible Growth Program: Explore opportunities within the climate compatible growth program funded by Foreign, Commonwealth and Development Office (FCDO) for initiatives aligned with eCooking.
Carbon Credit Financing	Revenue from Carbon Credits	Emission reduction projects (e.g., eCooking) can generate carbon credits, which can be sold on carbon markets. This revenue stream can support the scaling of eCooking projects. Examples include: ▪ MGas's low-cost smart meters for LPG. ▪ KOKO Networks selling carbon credits to subsidize cookers and fuel. ▪ BURN Manufacturing's partnership with Carbon Neutral Royalty for cookstove manufacturing and carbon credits. ▪ ATEC's PayGo smart induction stoves generating carbon credits. ▪ PowerPay's smart-metered technology for monitoring carbon savings.	▪ Carbon Credits Financing: Leverage carbon credit schemes as a financial instrument to fund the distribution of electric stoves, the subsidization of tariffs and supply chain development activities. Explore opportunities under the voluntary carbon market and article 6 of the Paris Agreement.
Impact Investors	Equity, Debt, Convertible Notes	Provide capital for businesses with a social or environmental impact, expecting financial returns. They may offer flexible terms and value alignment with social goals. Examples include:	

		▪ Acumen, Engie, Circle Gas, FMO, Shell Foundation investing in clean cooking enterprises. ▪ BURN Manufacturing's over USD 4 million funding from investors like Acumen, General Electric, OPIC, Spark+, EEP.	
Multilateral Banks and Development Finance Institutions	Grants, Concessional Loans, Equity	Provide funding for projects with developmental goals. They offer various financing options, often at more favourable terms (lower interest rates, longer repayment periods) than commercial banks.	• African Development Bank: Utilize the bank's commitment towards eCooking through its electrification programs. This could potentially be channelled through Kenya Power for appliance financing based on a result-based facility. • The Nordic Green Bank (NEFCO): Tap into the existing result-based financing programs under NEFCO's Modern Cooking Facility for Africa that are focused on eCooking. • The French Development Agency (AFD): Engage with AFD to explore financial avenues for supporting electrification and clean cooking activities in Kenya. • Energising Development (EnDev) Financing Program: Leverage EnDev's result-based financing program specifically geared towards higher-tier cook stoves.
Sovereign Loans	Debt	Loans given by one country to another or by international financial institutions to governments. Can fund large-scale infrastructure projects, such as grid expansion or renewable energy integration for eCooking.	• On-Bill Repayment, or data sharing/co-marketing via Kenya Power: schemes where Kenya Power can acquire sovereign loans to subsidize eCooking appliances for its customers.

Commercial Banks	Debt, Loans	Offer loans for businesses and consumers. Useful for scaling production, expanding distribution networks, or consumer financing for appliance purchases. Loans must be repaid with interest.	
Venture Capitalists	Equity	Invest in high-growth potential startups in exchange for equity. Suitable for innovative eCooking businesses looking to scale rapidly.	
Microfinance Institutions	Microloans	Offer small loans to individuals or small businesses that might not qualify for traditional banking products. Crucial for enabling low-income households to purchase eCooking appliances.	
Crowdfunding Platforms	Equity, Debt, Reward-based, Donation-based Funding	Can be used to raise capital from a large number of people, typically via the internet. Useful for startups or community projects. The type of funding varies (donation, reward, equity, or debt).	
Corporate Financing	Equity, Debt, Internal Funding	Large corporations may invest in eCooking as part of their CSR initiatives or strategic investments. They can provide debt or equity financing or fund projects from internal resources.	

Connecting the clean cooking agenda to climate financing offers opportunities for resource mobilisation. By leveraging these diverse financing avenues, this strategy aims to generate a critical mass of financial resources required to accelerate the adoption of eCooking across Kenya.