



NATIONAL ENERGY POLICY (2018) SUMMARY



Eagles Relief and Development Programme



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DRAFT NATIONAL ENERGY POLICY (2018) SUMMARY

1.0 INTRODUCTION

The National Energy Policy 2018 seeks to guide planning and implementation of programmes, projects and activities in the energy sector. The aim is to increase access to affordable, reliable, sustainable, efficient and modern energy services for every person in the Country. It further aims at reducing the contribution of biomass in the energy mix through promotion of modern energy sources.

2.0 BACKGROUND

The Government of Malawi identified energy as a priority sector for socio-economic development. In January 2003, the Government adopted its first National Energy Policy. The Policy aimed to achieve the following long-term goals:

- ✚ Develop a robust and efficient energy sector,
- ✚ Catalyze establishment of a more liberalized and private sector driven energy supply industry,
- ✚ Transform Malawi from a biomass dependent country to one with a high modern energy component in the energy mix,

2.1 The NEP 2003 achieved the following successes:

- a) Formulation of the Malawi Energy Regulatory Authority (MERA) to regulate the energy sector ;
- b) Formulation of the National Oil Company of Malawi (NOCMA);
- c) Increased awareness of renewable energy technologies ;
- d) Capacity building in Renewable Energy Technologies through introduction of the Testing Centre for Renewable Energy Technologies (TCRET) and establishment of the Department of Energy Studies at Mzuzu University;
- e) Increased penetration of renewable energy into the energy mix;
- f) Establishment of the Rural Electrification Fund and the Rural Electrification Management Committee;
- g) Implementation of Power Market Reforms;
 - Amendment of the Electricity Act of 2004 to allow participation of Independent Power Producers.
 - Unbundling of ESCOM into two companies - one responsible for electricity generation-EGENCO, and the other one responsible for electricity transmission and distribution - residual ESCOM.
- h) Implementation of a Bulk Fuel Procurement System; and
- i) Increased fuel storage holding capacity to 75days.

2.2 Outstanding work from the 2003 NEP:

- a) Need to create two publicly owned companies one responsible for transmission and another for distribution
- b) Attraction of more private players into the industry.
- c) Increase transmission capacity and access to electricity
- d) Utilization of the Rural Electrification Fund for off-grid electrification
- e) Increase renewable energy contribution in the energy mix
- f) Increase adoption of other efficient and alternative energy technologies to reduce demand for biomass
- g) Increase Bio-ethanol, biodiesel, Liquefied Petroleum Gas, Coal and Nuclear energy contribution to the energy mix
- h) Comprehensively Implementing the Demand Side Management and Energy Efficiency programmes
- i) Consideration for other international energy aspirations as envisaged in the SDGs and the SE4ALL.

2.3 The NEP 2018 therefore focuses on;

- a) Provision of sustainable and reliable energy for socioeconomic development
- b) Achieving universal energy access
- c) Ensure Cost-reflective pricing on all energy sources.
- d) Promoting regional power connection
- e) Reducing impact of climate change on energy and promoting efficient biomass stoves, biomass briquettes and other sources of energy
- f) Enhancing energy intervention's planning and implementation at district level.
- g) Promoting social and gender inclusion in energy programmes

3.0 RATIONALE

The NEP 2018 has formulated to consider structural, political and market changes in the energy sector as well as the overall economy in Malawi. It was further formulated to consider changes in the national and international development agenda.

4.0 POLICY GUIDING PRINCIPLES

The energy Policy is guided by the following principles;

- a) Sustainable Energy Supply and Services
- b) Energy Efficiency and Conservation
- c) Sustainable Energy for all

- d) Equitable and inclusive Energy Access
- e) Promotion of Private Sector Participation
- f) Good Governance in Energy Services

5.0 LINKAGES WITH EXISTING POLICIES, LAWS AND INTERNATIONAL OBLIGATIONS

The National Energy Policy 2018 was developed taking into consideration other laws and strategies.

Constitution of the Republic of Malawi

- ✚ Section 13 embodies principles of national policy that ensure that State is actively promoting the welfare and development of Malawians.
- ✚ Mandates the State to develop policies that will prevent degradation of the environment and enhance quality of rural life, education, gender and disability inclusion

Malawi Vision 2020

- ✚ Advances environmental sustainability
- ✚ However, the success of the Vision has been minimal in part due to limited development and growth in the energy sector.

Malawi Growth and Development Strategy (MGDS) III

- ✚ The Malawi Growth and Development Strategy (MGDS) III recognizes that energy is the lifeblood of the economy as it serves as a crucial input to all economic and social services.

Legislations.

- ✚ The Environmental Management Act 2016.
- ✚ Mines and Minerals Act 1981.
- ✚ National Forestry Act 1997.
- ✚ Water Resources Act 2013 and Gender Equality Act 2015, among others.

National Gender Policy (2006).

- ✚ Expects the energy sector to ensure integration of gender in Environmental Impact Assessments (EIAs)

National HIV and AIDS Policy (2013)

- ✚ Promotes implementation of comprehensive workplace HIV interventions that target highly mobile groups mainstreaming of HIV awareness in the energy sector.

Mines and Minerals Policy (2013).

- ✚ Advocates the development of adequate infrastructure to support development of mining in the country.

National Forestry Policy (1996).

- ✚ Biomass is a downstream product of forests hence its use as an energy source must comply with the Forestry Policy

National Climate Change Management Policy (2016).

- ✚ Promotes adaptation and mitigation measures to climate change that will also benefit the energy sector.

Programme for Infrastructure Development in Africa (PIDA)

- ✚ PIDA aims to boost energy trade within and between regional power pools which will benefit the African economic regions.

Tripartite Free Trade.

- ✚ Focuses on harmonizing the Regional Economic Communities (RECs)' programmes in the areas of trade and infrastructure which include energy.

SADC Energy Protocol and Energy Cooperation Policy and Strategy (1996).

- ✚ Identifies energy as key for regional integration for trade in energy, investment and finance, capacity building and training, the exchange of information and the sharing of experience.

SADC Regional Infrastructure Development Master Plan (RIDMP).

- ✚ Prioritizes energy sector and falls under the RDIMP Energy Sector Plan (ESP) 2012.

International Energy Agency (IEA)

- ✚ Identifies Energy security as key theme for environmental protection and economic development.

Power Africa Initiative

- ✚ Supports economic growth and Development by increasing access to reliable, affordable, and sustainable power in Africa.

Sustainable Energy for All (SE4ALL) Initiative (2011)

- ✚ Aims to achieve the three main goals of ensuring universal access to modern energy services.

Sustainable Development Goals.

- ✚ Aims at ensuring universal access to affordable, reliable, and modern energy services by 2030.

6.0 POLICY GOAL

The policy goal is to increase access to affordable, reliable, sustainable, efficient and modern energy for every person in the country.

7.0 POLICY OUTCOMES

The following are the intended policy outcomes;

- Diversified energy sources;
- Developed and efficient energy sector;
- Modernized and sustainable energy services;
- Improved living standards for men and women due to equitable provision of energy services, and
- Increased access to clean, sustainable and affordable energy for all people.

8.0 BROAD POLICY OBJECTIVES

Below are the broad Policy objectives;

- a) To strengthen the Electricity Supply Industry (ESI) and make it more efficient to support industrialization, rural transformation, sustainable economic development and wealth creation, as well as to facilitate regional electricity trading;
- b) To ensure adequate production and supply of petroleum and biofuels at affordable prices;
- c) To ensure availability of LPG, biogas and natural gas in sufficient quantities at affordable prices for industrial and domestic use;
- d) To promote a coal supply industry that is more efficient and competitive, and harnesses clean technologies that eliminate or greatly reduce harmful emissions;
- e) To ensure that biomass is sustainably used and carbon emissions are reduced through the use of energy efficient technologies;
- f) To establish a vibrant, reliable, incentivized and sustainable private sector-driven Renewable Energy Technology industry; and
- g) To promote energy programming, budgeting and monitoring that routinely address all aspects of social and economic development in energy programmes and services.

9.0 POLICY PRIORITY AREAS

The priority areas in the Energy policy are classified as listed below;

1. Electricity
2. Biomass
3. Petroleum Fuels
4. Bio-ethanol and Other Biofuels
5. Liquefied Petroleum Gas, Biogas and Natural Gas
6. Coal
7. Nuclear Energy
8. Demand Side Management

9.1 PRIORITY AREA: ELECTRICITY

- ✚ The priority area covers generation, transmission, distribution, and rural electrification, electricity from renewable energy, and definition and measurement of access to electricity.
- ✚ The electricity sector is comprised of one National Company, on the generation side, the Electricity Generation Company (EGENCO) with more private generators to come in soon as allowed by the Electricity amendment Act of 2016. On the transmission and distribution, the sector has only one

National Company, Electricity Corporation of Malawi (ESCOM) which is responsible for being a single buyer, transmitter and distributor of electricity in Malawi. Transmission and distribution functions are done at 400kV, 132kV, 66kV and 11kV, 33kV, respectively. The transmission and distribution infrastructures are owned and operated by ESCOM. Electricity sector has also several public and private players in the off-grid renewable energy industry.

- ✚ Rural electrification entails increasing electricity access to rural and peri-urban areas using grid and off-grid options. The Malawi Rural Electrification Program (MAREP), which is being implemented by GOM through the Department of Energy Affairs and ESCOM using the Rural Electrification Fund.
- ✚ Renewable energy resources that are found in Malawi and considered as part of electricity priority area include: sunshine for photo-voltaic and photo-thermal applications, wind speeds for water pumping and power generation, perennial rivers with hydro power potential, biomass materials for electricity generation and hot springs for geothermal power generation.
- ✚ Further, on Electricity, Malawi has adopted, the Sustainable Energy for All (SE4All) Initiative's Global Tracking Framework (GTF). As opposed to the former method which revolved around connectivity to the National grid, GTF includes both connectivity to the national grid, isolated/Decentralised mini-grids, solar home systems, generators and utilization of Pico Solar Products as a measure of access to electricity.

Challenges currently faced in the electricity industry include:

- ✚ Overdependence on hydro technology and the Shire River for hydropower generation.
- ✚ No private generators (IPPs) operating on the ground
- ✚ Low installed capacity at 361MW, 91% from hydro Power and 9% from standby diesel/petrol generators against an estimated demand of 529MW.
- ✚ There is lack of interconnection at regional level.
- ✚ Low electricity access rate due to :
 - low coverage distribution network and high cost of connection to the grid, including the cost of transformers. Further, Slow customers' connection due to material procurement bottlenecks and limited capacity to construct the lines to customers.
- ✚ The rural electrification Programme has been targeting mainly grid extensions with renewable energy and mini grids not been promoted significantly.
- ✚ Rural electrification has so far concentrated on electrifying selected trading or rural growth centres in the districts leaving out Villages, especially households, grain mills, and social service facilities.

- ✦ Rural electrification projects in the country have not fully involved subgroups of rural men and women in planning, governance, management, recruitment, procurement and operations.
- ✦ Prohibitive capital costs of Renewable Energy systems and products,
- ✦ Inadequate human capacity building at all levels in Renewable Energy Technology (RET) products, services, installation, maintenance, and marketing;
- ✦ Lack of awareness and information about RET products and services by the population; and
- ✦ Lack of enforcement mechanisms for standards resulting in a proliferation of poor quality products.
- ✦ Understatement of electricity access rates due to focus on national grid connectivity as a method of defining electricity access leaving out isolated minigrids, Pico Solar Products, Solar Home Systems and generators.

9.1.1 Electricity Generation

Policy Statements

- ***Government will create an enabling environment in order to diversify power generation sources for security of supply and expand generation capacity to meet the demand for electricity in the country.***

Strategies:

1. Reviewing the 2017 -2035 Integrated Resource Plan every five years.
 2. Creating an enabling environment for private sector investment in power generation.
 3. Conducting feasibility studies on sites for power generation from hydro, coal, geothermal, natural gas, solar, wind, agricultural waste, forestry waste, and biogas resources.
 4. Developing the sites for power generation from Hydro, Coal, Geothermal, Natural Gas, Solar, Wind, agricultural waste, forestry waste, and biogas resources, up to commissioning.
 5. Developing new hydro power plants up to commissioning.
- ***Government will support all the necessary processes relating to the full operationalization of Electricity Generation Company, (EGENCO) and the company responsible for transmission and distribution, (ESCOM).***

Strategy:

1. Implementing power sector reforms in accordance with the Electricity Amendment Act of 2016.

- **Government will interconnect its power system with the regional grids of SAPP and EAPP to ensure availability of additional generation capacity.**

Strategy:

1. Interconnecting the Malawi power system with those of Mozambique, Zambia and Tanzania.
- **Government will promote plans, programmes and strategies that deliberately advance the development of equal opportunities for marginalized and vulnerable groups in the electricity generation value chain.**

Strategies:

1. Developing Social and Gender Integration Plans (or their equivalents) through EGENCO and IPPs to address inward looking and outward looking social and gender issues across all generation functions.
2. Developing robust socially responsive Environmental and Social Impact Assessment (ESIAs) instruments for generation projects.
3. Developing and implementing comprehensive socially responsive Environmental and Social Impact Management Plans for generation projects.
4. Developing gender sensitive Resettlement Action Plans and/or fair compensation Packages

9.1.2 Electricity Transmission

Policy Statements

- **Government will intensify the expansion and rehabilitation of the transmission system in line with the Integrated Resource plan (IRP) and in a socially and environmentally responsible manner, with a view to catalyzing industrialization, rural transformation, sustainable economic development, inclusive growth and creation of wealth.**

Strategies:

1. Operationalizing in full the new transmission and distribution company.
2. Including all candidate transmission expansion and strengthening projects in a 20-year IRP and updates thereof.
3. Empowering generation companies to build transmission lines and substations to interconnect the power stations with the transmission grid under the Transmission Operator's coordination.

- **Government will put in place robust power market operation rules and enforce the Grid Code.**

Strategy:

1. Reviewing the Grid Code

- **Government will interconnect its power system with the regional grids of SAPP and EAPP to facilitate Regional power trading.**

Strategy:

1. Interconnecting the Malawi power system with those of Mozambique, Zambia and Tanzania.

- **Government will ensure that transmission operations do not perpetuate inequalities amongst marginalized groups and project affected persons.**

Strategies:

1. Develop Social and Gender integration plans
2. Develop and implement robust socially responsive Environmental and Social Impact Assessments plans
3. Develop Gender sensitive resettlement action plans and fair compensation packages.

9.1.3 Electricity Distribution

Policy Statements

- **Government will intensify the expansion and rehabilitation of the distribution network in a socially inclusive manner**

Strategies

1. Constructing new distribution lines and substations.
2. Developing robust socially responsive ESAs for new distribution lines and substations projects.
3. Developing and implementing comprehensive socially responsive ESIMPs for new distribution lines and substations projects.
4. Developing gender sensitive Resettlement Action Plans and/or fair compensation packages
5. Rehabilitating existing distribution lines and substations.

- **Government will incentivize distribution licensees to devise schemes that will enable consumers to connect electricity to their homes, and afford basic energy efficient electrical appliances.**

Strategies:

1. Removing duty and VAT on energy efficient domestic electric cooking and water heating appliances.
2. Introducing lifeline tariffs to enable low income households to access electricity

- **Government will encourage distribution licensees to expedite connections to customers' premises.**

Strategies:

1. Implementing a policy whereby the distribution licensees shall allow customers to procure transformers and other materials, in the event of procurement bottlenecks, and thereafter take over the assets with appropriate compensation.
2. Implementing a policy whereby construction works will be contracted out.
3. Promoting initial connection cost recovery from tariff payments

- **Government will ensure that distribution licensees have plans and strategies for fostering equal access to services and opportunities for low-income consumers and marginalized societal groups.**

Strategy:

1. Developing Social and Gender Integration Plans by ESCOM and distribution licensees to address inward looking and outward looking social and gender issues across all distribution functions.

9.1.4 Rural Electrification

Policy Statement

- **Government will restructure rural electrification and Renewable energy management governance**

Strategy

1. Establish a Rural Electrification Agency as a semi-autonomous legal entity to manage rural electrification Fund and activities in all grids.

- **Government to pay for the cost of Transformers and associated infrastructure for the benefit of a prescribed minimum number of customers in rural areas**

Strategy

1. Make a provision for payment of infrastructure costs in the Rural Electrification Act.

- **Government will intensify electrification of rural growth centers and other rural settlements and villages.**

Strategies

1. Committing funds from the Rural Electrification Fund to off-grid rural electrification

- **Government will facilitate wiring of public institutional buildings and connection of electricity thereto**

Strategies.

1. Electrifying institutional buildings, such as schools and hospitals using the Rural Electrification Fund
2. Devising schemes for the Rural Electrification Fund to connect electricity to low income households within 500m radii of distribution substations.

- **Government will promote rural electrification programmes that create and strengthen equal opportunities for all segments of society.**

Strategies

1. Develop social and gender integration plans through MAREP and Contractors.
2. Devising rural electrification interventions for low income households

9.1.5 Electricity from Renewable Energy

Policy Statements

- **GoM will strengthen the exploitation of renewable energy resources**

Strategies

1. Integrating inclusive renewable energy utilization into the Integrated Resource Plan
2. Promulgation and reviewing of standard RET products, especially Solar PV and Pico Solar Products

- **GoM will promote use of renewable energy technologies and manufacture of renewable energy products such as solar panels.**

Strategies

1. Expediting assessment and development of renewable energy resources such as geothermal, solar, wind and biomass.
2. Adopting a Malawi Renewable Energy Strategy (MRES)
3. Establishing fiscal incentives for renewable energy exploitation using existing funds
4. Developing a strategy for public awareness campaigns on renewable energy technologies targeted at rural, urban and peri-urban consumers
5. Promoting RET products for vulnerable and marginalized groups.

➤ *Government will support small-scale renewable energy initiatives by communities or entrepreneurs.*

Strategies:

1. Developing regulations for specific small-scale technologies under the Renewable Energy Act.
2. Reviewing the feed-in tariffs to ensure that all technologies are sustainably accommodated.
3. Involving communities in community energy planning and implementation.
4. Equipping all stand-alone renewable source powered mini-grids and privately-owned installations with Net Metering to ensure their continued use upon connection to the grid.
5. Promoting competitive bidding for mini-grid concessions.

➤ *Government will promote capacity building in all areas of RET programming, supply and services, as well as in entrepreneurship and management, taking into account gender and social issues.*

Strategies:

1. Developing and implement an inclusive and comprehensive RE Capacity Building Plan.
2. Devising incentives to increase numbers of well qualified male and female RET artisans, technicians, professional engineers, and entrepreneurs.

➤ *Government will build strong partnerships with the private sector and CSOs (including PPPs) to promote the manufacture, distribution, use and financing of improved renewable energy technologies.*

Strategies:

1. Introducing financing schemes and incentives for the private sector to locally manufacture and distribute RE products.
2. Expediting the accreditation of RE manufacturers and suppliers and certification of RE products.

3. Strengthening the capacity of CSOs and decentralized structures in RET programming.

9.1.6 Definition and Measures of Access to electricity

Policy Statement

- *Government will adopt the Global Tracking Framework (GTF) for measuring access to electricity*

Strategies:

1. Adopting (and if necessary, adapting) the Global Tracking Framework.
2. Conducting annual surveys to determine percentages for all tiers.
3. Presenting access levels for each year in the GTF format.

9.2 PRIORITY AREA: BIOMASS

- ✚ Biomass accounts 80% of the total primary energy supply
- ✚ Biomass remains an important source of energy for the foreseeable future
- ✚ GoM to rollout 2 million efficient cookstoves by 2020 to reduce biomass consumption
- ✚ Malawi has an inefficient and unsustainable biomass sector
- ✚ Need to encourage improved biomass-based energy technologies

Policy Statements

- **GoM will build strong partnerships with the private sector and NGOs**

Strategies

1. Promoting the creation of feasible business models for modern biomass technologies
 2. Promoting incentives to CSOs to increase the uptake of modern biomass technologies.
 3. Promoting alternative technologies to charcoal in urban and peri-urban areas.
 4. Introducing incentives for the growth of industries in manufacturing and distribution of improved cook stoves, brick kilns, charcoal kilns and biomass briquettes.
 5. Introducing customs duty and VAT waivers.
- **Government will intensify training and nationwide promotional activities for improved cook stoves, brick kilns, charcoal kilns, and biomass briquettes**

Strategies:

1. Building and strengthening capacity in new biomass technologies.
2. Increasing public knowledge and utilization of improved biomass technologies

3. Developing and implementing a Biomass Energy Technologies Training Strategy.

- **Government will ensure that low income and marginalized groups have equitable access to, control over, and benefit from biomass technologies.**

Strategy:

1. Strengthening targeted biomass interventions for low income and marginalized groups in urban and rural areas to access and control technologies.

- **Government will entrust and empower local authorities to promote the utilization of efficient biomass technologies.**

Strategies:

1. Recruiting District Energy Officers.
2. Strengthening District level capacity to implement sustainable biomass energy programmes/projects.
3. Including biomass programmes in District Implementation Plans (DIP).

- **Government will promote the certification and labelling of all energy efficient commercial cook stoves that are sold as commercial products on the market**

Strategy:

1. Developing and enforcing standards on cook stoves sold as commercial products

- **Government will encourage charcoal making communities to venture into alternative income generating activities.**

Strategy:

1. Building linkages between the energy sector and economic empowerment initiatives that are implemented by other sectors in charcoal making areas

9.3 PRIORITY AREA: PETROLEUM FUELS

- ✚ Malawi lacks domestic refining facilities and therefore imports refined petroleum fuels.
- ✚ GoM uses and is committed to maintaining the Automatic Fuel Price Adjustment mechanism.
- ✚ The GoM implements a bulk procurement system in the importation of fuel
- ✚ Private sector participation is encouraged in the fuel market.

Policy Statements

- **Government will ensure that the country has adequate petroleum fuels, including paraffin, at all times to meet the demand of the country.**

Strategies:

1. Maintaining a minimum reserve of 90 days' supply of fuel.

2. Promoting cost-effective, efficient and environmentally and socially responsive alternative conveyance methods.
3. Promoting exploration for petroleum for energy security.
4. Providing customs duty and VAT incentives to potential investors in the oil market.

➤ **Government will continue promoting the participation of the private sector in the oil market.**

Strategies:

1. Reviewing and enforcing legislation to adopt a system of bulk procurement of fuel.
2. Utilizing the Government fuel storage facilities as inland dry ports and common-user facilities.
3. Developing and implementing guidelines for franchising of liquid fuel outlets
4. Introducing investment incentives to contribute to the economic empowerment of Malawians in the oil market.

➤ **Government will promote deliberate planning that strengthens the equitable participation of men, women and marginalized groups in the oil market.**

Strategies:

1. Introducing and/or strengthening youth and women mentorship and capacity building programmes in the oil market.
2. Developing social and gender inclusion strategies for increasing equal opportunities in employment and addressing social and gender issues in the oil market.

➤ **MERA shall maintain the automatic fuel price adjustment system and apply it in a transparent manner.**

Strategy:

1. Regulating fuel prices through use of a transparent and verifiable fuel price adjustment system

9.4 PRIORITY AREA: BIOETHANOL AND OTHER BIOFUELS

- ✚ Provides 4% of transport energy from locally-produced bio-ethanol and bio-diesel blended with petroleum fuels.
- ✚ No nation-wide pump station infrastructure for handling bioethanol grades.

Policy Statements

➤ **Government will support and promote the production of bioethanol and biodiesel for blending or stand-alone use in vehicles, as well as for cooking, lighting etc.**

Strategies:

1. Increasing the supply of bio-ethanol and bio-diesel.

2. Promoting fiscal incentives for bio-ethanol and bio-diesel production.
3. Promoting the use of bio-fuels through appropriate pricing incentives.
4. Implementing socially and environmentally responsive bio-ethanol and bio-diesel projects.
5. Increasing local capacity to produce bioethanol and biodiesel fuels without threatening food security,
6. Engaging the National Commission for Science and Technology as well as academic and research institutions in discussions on biofuel mixtures and their usage in vehicles.
7. Promoting socially responsive research and development in the biofuel areas.

- **Government will promote equal opportunities for the participation of the citizenry in the biofuels industry including in building capacity in biofuel technologies.**

Strategy:

1. Developing plans and strategies that facilitate the capacity building of both women and men in biofuel technologies and increasing women's participation in the industry.

- **Government will ensure that the production of biofuels does not threaten food security.**

Strategies:

1. Promoting the growing and use of non-staple food crops as bio-ethanol and bio-diesel raw materials.
2. Intensifying public awareness campaigns to ensure that land for the cultivation of food crops is not used to growing biofuel feedstock.

- **In addition to continuing with the current 80:20 petrol to bioethanol blending ratio, Government will promote the use of flex vehicles capable of running on 100% bioethanol and any other blending ratio.**

Strategies:

1. Implementing a phased installation of bioethanol pumps in line with increased production of bioethanol.
2. Promoting awareness campaigns on the uptake of new technologies (e.g. flex vehicles).
3. Promoting importation of conversion kits for existing petrol-powered vehicles.

- **In addition to continuing with the current 91:9 diesel to straight vegetable oil blending ratio, Government will promote the use of vehicles capable of running on 100% biodiesel and any other blending ratio.**

Strategies:

1. Implementing a phased installation of biodiesel pumps in line with increased production of biodiesel.

2. Promoting awareness campaigns to ensure that there is uptake of new technologies
3. Promoting importation of conversion kits for existing diesel-powered vehicles.

9.5 PRIORITY AREA: LIQUIFIED PETROLEUM GAS, BIOGAS AND NATURAL

- ✚ Malawi imports all its LPG requirements and could be importing natural gas from Mozambique and Tanzania.
- ✚ Importation of LPG is done by private sector and regulated by MERA
 - ✚ There are a lot of local waste products in rural and urban areas which can be used to produce biogas for cooking in Malawi
- ✚ There are no large-scale gas networks in Malawi but the market potential for Biogas is high
- ✚ High cost, safety, cultural resistance and lack of wide distribution are some of the barriers to LPG, Natural Gas and Biogas adoption in Malawi.

Policy Statements

- **Government will ensure availability of LPG, Biogas and Natural Gas in sufficient quantities at affordable prices for industrial (electricity generation, heat) and domestic use.**

Strategies:

1. Undertaking legal and regulatory reviews to facilitate institutional reforms for investments in and utilization of LPG, biogas and natural gas.
 2. Promoting tax and other fiscal incentives for large scale investments in LPG
 3. Implementing a phased program to accelerate the penetration of LPG and natural gas
 4. Providing customs duty and VAT incentives to promote the wide availability of small LPG cylinders and gas cookers, and make them affordable to low income households.
 5. Promoting use of LPG, Biogas and Natural Gas through fiscal incentives to financially viable companies
- **Government will implement programmes aimed at building the capacity of the LPG, Biogas and Natural Gas Industry.**

Strategies:

1. Promoting socially inclusive and well trained LPG, biogas and natural gas suppliers and users.
2. Conducting public awareness campaigns on the safe use of LPG, biogas and natural gas.
3. Promulgating regulations and standards on the supply and distribution of cylinders for LPG.
4. Implementing regulations and standards on the supply and distribution of cylinders for LPG

- **Government will promote an LPG, Biogas and Natural Gas industry that actively strengthens the participation and economic empowerment of local women, men and the youth in the industry.**

Strategies:

1. Developing strategies to facilitate inclusive capacity building for entrepreneurs in the industry.
2. Building knowledge and skills of women, men and youth in LPG,
3. Devising plans, strategies and incentives to increase the employment of local women and the youth in the industry.

- **Government will establish PPPs for the purpose of exploring and extracting Natural Gas and construction of the associated infrastructure.**

Strategy:

1. Engaging private companies with expertise in the industry that are interested in establishing partnerships.

9.6 PRIORITY AREA: COAL

- ✚ Malawi has 1 billion metric tonnes of probable coal reserves
- ✚ Coal Supply Industry faces challenges like; lack of price competitiveness, high production cost, low productivity, non-availability of appropriate end-use technologies and absence of regulatory framework.

Policy Statements

- **Government will promote and encourage the private sector to take a leading role in the coal industry subject to regulatory and licensing requirements.**

Strategies:

1. Empowering the private sector to intensify exploration for and exploitation of coal reserves.
2. Ensuring that pricing for locally mined coal is competitive.

- **Government will ensure that the responsible regulatory institutions regulate the storage, transportation, importation, marketing, usage, and pricing of coal.**

Strategies:

1. Implementing a systematic programme of inspection of coal storage facilities, combustion processes, and transportation systems.
2. Devising mechanisms to monitor pricing and marketing operations.
3. Putting in place competitive coal haulage and brokerage arrangements.
4. Reviewing and enforcing the relevant legislation and ensuring safe, healthy and environmentally friendly operations in the supply chain.
5. Ensuring that the coal production, transportation, utilization and waste disposal processes produce minimal pollutants.

- **Government will put in place sustainable measures and regulations to ensure that the mining, transportation, storage and utilization of coal have minimal adverse health, social and safety impacts.**

Strategies:

1. Putting in place all-inclusive capacity building programmes.
2. Developing ESIA Plans to address environmental issues affecting the coal industry.
3. Developing Social and Gender Integration Plans to address inward looking and outward looking social and gender issues affecting the coal industry.

- **Government will promote coal as a fuel for power generation and as an alternative to wood fuel for household use, tobacco curing and other applications.**

Strategies:

1. Implementing environmentally friendly coal-fired electricity generation projects.
2. Conducting ESIA's, developing and implementing comprehensive impact mitigation plans.
3. Developing and implementing Gender Sensitive Resettlement Action Plan/Fair Compensation packages
4. Promoting appropriate end-use technologies to facilitate use of coal

- **Government, through the Environmental Affairs Department and MERA, shall ensure that all coal combustion installations abide by set minimum standards.**

Strategies:

1. Implementing systematic inspection programmes for coal combustion installations.
2. Supporting research in, and the development of more efficient coal-combustion technologies.
3. Promoting the application of clean coal technologies

- **Government will, through fiscal incentives, promote coal-dust briquetting programmes.**

Strategy:

1. Encouraging coal producers and entrepreneurs to engage in coal briquette production.

- **Government will encourage the private sector to deliberately develop the capacity of women, men and the youth to meaningfully participate in the coal industry.**

Strategy:

1. Developing and implementing strategies that promote equal employment and entrepreneurship opportunities for men, women and youth in the industry.

9.7 PRIORITY AREA: NUCLEAR ENERGY

- ✚ Malawi had 63,000 tonnes of proven Uranium reserve in Karonga
- ✚ Other Uranium deposits are in Ilomba in Chitipa district
- ✚ Malawi has plans to commission the first nuclear power plant in 2035.

Policy Statements

- **Government will build capacity in generation of electricity from nuclear energy.**

Strategies:

1. Introducing Nuclear Science and Materials programmes in public universities.
 2. Building capacity in nuclear energy in Government.
 3. Promoting Research and Development in Nuclear Science.
 4. Establishing socially and environmentally responsive uranium processing facilities in the country.
 5. Developing and commissioning the first nuclear power plant.
- **Government will promote nuclear energy programming that prioritizes the prevention and mitigation of different potential health risks that the industry poses to workers and ordinary men, women, children and the environment.**

Strategy:

1. Development and implementation of Social and Gender Integration Plans by nuclear companies/projects to address inward looking and outward looking social and gender issues affecting nuclear energy.

9.8 PRIORITY AREA: DEMAND SIDE MANAGEMENT

- ✚ Focuses on savings in electricity and biomass consumption and the aim of this priority area is to improve energy efficiency, which is mainly due to use of inefficient devices, appliances, and energy wastage consumer behaviors.

Policy Statements

- **Government will promote the use of energy efficient technologies.**

Strategies:

1. Enforcing a ban on importation, distribution and use of incandescent bulbs and promoting energy saving alternatives.
2. Promoting energy saving electrical and biomass-fueled devices.
3. Promulgating regulations and standards for building designs and energy efficient devices.
4. Providing duty and VAT waivers for solar water heaters.
5. Supporting utility companies in the implementation of tariffs that encourage energy efficient use.
6. Encouraging regular energy audits

7. Encouraging research and development in energy efficient equipment, buildings etc.
8. Promoting use of multiple sources of energy and energy efficiency in buildings
9. Sensitizing the public on safe utilization and disposal of energy saving bulbs.
10. Promoting the design of buildings to take advantage of natural lighting, air conditioning.

➤ **Government will encourage electricity utility companies to implement Demand Side Management programmes.**

Strategies:

1. Conducting public information campaigns to raise awareness among consumers.
2. Installing energy efficient measures in electricity connected households
3. Installing prepayment meters to reduce non-payment problems and implementing tariffs that encourage energy efficient behavior by consumers.

➤ **Government will encourage Civil Society Organizations and Private Sector players to promote Demand Side Management.**

Strategies:

1. Structuring and implementing energy efficient initiatives.
2. Developing DSM awareness materials.
3. Conducting information dissemination campaigns among energy consumers.

➤ **Government will ensure that importers, retailers and low-income consumers have targeted information regarding affordable, modern and sustainable energy products.**

Strategy:

1. Developing and implementing a public outreach strategy on sustainable energy products.

10.0 IMPLEMENTATION ARRANGEMENT

The Ministries, Departments and sectors below shall play their respective roles and responsibilities on energy policy implementation:

- ✚ Ministry responsible of energy affairs
- ✚ Ministry responsible for Forestry
- ✚ Ministry responsible for Lands
- ✚ Ministry responsible for Mining and Geological Surveys
- ✚ Ministry responsible for Environmental Affairs
- ✚ Ministry responsible for Finance
- ✚ Ministry responsible for Justice
- ✚ Ministry responsible for trade
- ✚ Ministry responsible for Local Development and Rural Development
- ✚ Ministry responsible for Water Resources

- ✦ Academic and Research institutions
- ✦ Civil Society Organizations
- ✦ Private Sector and Development Partners

11.0 IMPLEMENTATION PLAN

- ✦ The Policy is accompanied by a detailed implementation plan
- ✦ It also includes a time frame for the implementation of each strategy

12.0 MONITORING AND EVALUATION

- ✦ The policy also has a detailed M&E Plan for measuring progress and provide feedback information on implementation.