

Ministry of Education Science and Technology





KENYA NATIONAL ENERGY REPORT

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A globally competitive and prosperous nation with a high quality of life by 2030

A sustained economic growth of 10% per annum from year 2015



Key Enablers:

Energy - A Vibrant Power Sector that Meets Electricity Required to Drive Flagship Programmes ST&I - Harnessing ST&I for Sustainable Development and Global Competitiveness





Energy as a Foundation of Vision 2030

•Energy is one of the infrastructural enablers of the three "pillars" of Vision 2030.

•Kenya is expected to use more energy in the commercial sector on the road to 2030

•The government has continued to finance extension of electricity supply in the rural areas as part of the basic infrastructure to stimulate economic growth and employment creation.

•Flagship Projects

- •Increasing Electricity Availability through Power Generation
- •Drilling and Steam Field Development of Wells
- •Development of Multi-Purpose Dams by Regional Development Authorities
- Increasing Electricity Access

• construction of Pipeline and Storage Facilities

Development of New and Renewable Sources of Energy



CURRENT POLICY AND LEGISLATION

The energy and petroleum sector is guided by Sessional Paper No. 4 of 2004 and several pieces of legislation, the principal ones being:

•The Energy Act, No. 12 which was enacted in 2006. It sought to amend and consolidate the law relating to energy, provide for the establishment, powers and functions of the Energy Regulatory Commission, the Energy Tribunal and the Rural Electrification Authority.

•The Geothermal Resources Act No. 12, enacted in 1982 to control the exploitation and use of geothermal resources and vests the resources in the Government.

•The Petroleum (Exploration and Production) Act, Chapter 308 of the Laws of Kenya was enacted to regulate the negotiation and conclusion by the Government of petroleum agreements relating to the exploration, development, production and transportation of petroleum.

• The Petroleum Development Fund Act was enacted in 1991 for the SUCCEE establishment of a Petroleum Development Fund and the most bound for the Petroleum Development Levy

INSTITUTIONAL SET UP - ENERGY SECTOR

Institution (s)	Responsibility
Ministry of Energy and Petroleum	Energy Policy and Development
Energy Regulatory Commission	Licensing
Kenya Energy Generation Company (KENGEN)	Generation (mainly geo-thermal and hydro power plants)
Kenya Power Limited and Kenya Transmission Company Limited	Distribution of grid connectivity
Kenya Bureau of Standards	Standards
National Environmental Management Authority	Environmental Management and Coordination
Ministry of Planning, Local Authority	Physical Planning
Ministry of Energy and Petroleum and Rural Electrification Authority	Rural Electrification
Ministry of Education, Science and Technology and	Training and Research

ENERGY SITUATION IN KENYA

•Kenya has an installed generation capacity of 2,295 MW or 0.049 kW per capita

•Electricity supply from hydro and fossil fuel (thermal) sources

•Generation energy mix comprises

- ✓ 52.1% from Hydro,
- ✓ 32.5% from Fossil Fuels,
- ✓ 13.2% from Geothermal,
- ✓ 1.8% from Biogas and
- ✓ 0.4% from Wind.

•Current electricity demand is approximately 3,400 MW





PEAK POWER DEMAND PROJECTION FOR KENYA (MW)



Source: Least Cost Power Development Plan 2011/2031



STRATEGIES FOR STRENGTHENING PARTNERSHIPS IN THE ENERGY SECTOR

- •Increased interaction between Learning and Research Institutions, private sector and the government (The Triple Helix)
- •Higher Learning and Research institutions to engage the private sector in advanced energy solutions on a national scale
- •Public-Private Partnership Act 2013
- •Enhance Technology Transfer Offices in HEIs
- •R&D Funding- Provide stable, sufficient funding for **Research**, **Development**, **Demonstration and Deployment** of a wide range of emerging clean energy technologies





CONCLUSIONS AND RECOMMENDATIONS

Include:

- Recommendations on how to facilitate and encourage regional STI cooperation
 - Development of a database of Energy Experts categorised by areas of expertise
 - Develop and maintain a network of experts
 - Responding to joint calls for research
- Recommendations on how to increase the interaction between the higher education system, the private sector and the government.
 - Involve stakeholder industry players when developing university curriculum. Universities to set up guidelines





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Ahsanteni Sana!



