











### **Profile preview.**

Competent registered Electrical Engineer and Certified Energy Manager with 14+ years work experience in Electrical Installation, Drawing & Designing, billings (BOQs), Testing Commissioning of Renewable Energy and Electrical Engineering Projects. Developer of business strategies geared toward renewable energy, rural electrifications and electrical engineering fields. Seeking more challenging opportunities where by my skills and expertise in Electrical Engineering / Renewable Energy will be used and developed further as I contribute towards achievement of Organisational Objectives.

### **Competencies.**

-  Project Design and Management. Expertise in project planning, monitoring, evaluation, reporting and financial management for small & large scale Renewable Energy and Electrical Projects.
-  Expertise in building services engineering, power line design, supervision and construction, power substations design and supervision, design and implementation of renewable energy project. Power line materials quality control  
Experienced in installing, maintaining and testing electrical systems and equipment in domestic, commercial and industrial environments with comprehensive understanding of electrical health and safety regulations. Conversant with electrical designing, project cost estimation, safety compliance, electrical process improvements, customer service, maintenance, equipment testing.
-  Development of business strategies for organisations / institutions that promote use of renewable energy in African communities
-  Licensed Electrical, Solar Photovoltaic and Solar Water Heating Technician by ERPA (formerly ERC). Proficiency in design and supervision of Substations, Distribution Networks and Renewable Energy Stations.
-  Proficiency in analysing Electrical Systems stability and performance.
-  Proficiency in Governmental procedures of Procurement (tendering, evaluation and award) and other International funding agencies (World Bank, KFW, DFID, and AFD)
-  Proficiency in Power Factory (DigSilent) Simulator and power world simulator (PSSE).
-  Expertise in Stability and load flow studies in simulated systems using the simulator.
-  Proficient in using AutoCAD, Arch-CAD and MATLAB.
-  Skilled at using SAP systems and other IT management systems represented the department in development input of the SAP system.

### **Work experience.**

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#### **INDEPENDENT CONSULTANT – ELECTRICAL ENGINEERING AND RENEWABLE ENERGY**

**September 2019- to date.**

#### **Key duties**

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- Development of renewable energy projects and rural electrifications strategic plans
- Reviewing and updating technical standards including international standards and local standards with KEBS technical committees.
- Design and supervision of electrical projects and renewable energy projects locally and internationally

## **SENIOR ENGINEER - RESEARCH AND STRATEGY DEPARTMENT.**

**Rural Electrification Authority || September 2015- August, 2019.**

### **Key duties.**

- ✚ Development of the Rural Electrification and Renewable Energy Corporation transition and strategic plan
- ✚ Developing Technical specifications of Materials/ Equipment used in Constructions Department by the organisation.
- ✚ Reviewing and updating specification including acquiring various international standards documents.
- ✚ Ensuring Rural Electrification Authority adopts and implements effective strategies for Planning, Monitoring & Evaluation of REA programs that deliver maximum value for the Authority. Liaising with KPLC regarding new and/or updated specifications for materials.
- ✚ Liaising with Projects implementing Departments in identifying the challenges affecting products and services of the authority.
- ✚ Represent REA in all meetings at sites whilst liaising with local authorities to facilitate smooth execution, and work with the supervising consultants to ensure timely completion of all contracts.
- ✚ Carrying out necessary tests and studies on identified challenges or problem and getting possible solutions. Working together with various Government Institutions and/or Non-Government organisations, teaching and non-teaching institutions in developing new products/solutions and information that will aid in enhancing Rural Electrification.
- ✚ Ensuring there is available relevant resource materials used in carryout various studies/research by linking the authority to various e- library organisations, purchases of e-books by the authority,

### **Key achievements.**

- ✚ Development of transition master plan from REA to REREC and the strategic plan (April 2019 to August 2019).
- ✚ Supervised the implementation of 50MW Garissa Project (2018)
- ✚ Development of technical standards and specifications of materials of power line constructions and renewable energy projects
- ✚ Research on construction materials to improved delivery of authority's projects

## **2<sup>ND</sup> ASSISTANT ENGINEER - RENEWABLE ENERGY.**

**Rural Electrification Authority || Dec 2012-August 2015.**

### **Key duties.**

- ✚ Designed, Supervised and Commissioned Renewable Energy (RE) projects.
- ✚ Implemented Programmes on Projects development covering construction of Renewable Energy projects in the Region
- ✚ Conducted Feasibility study for new RE Projects and prepared of various technical reports.
- ✚ Participated in the formulation of power system design standards and ensure they are adhered to
- ✚ Carried out appraisal for new RE project especially the donor funded projects
- ✚ Carried out evaluation process and preparation of reports for the tender committees.
- ✚ Lead a team of technicians in Solar and Wind Projects
- ✚ Represented the Authority in preparation of various documents e.g. Scaling Up Renewable Energy Program (SREP) team, Sustainable Energy for All (SE4All) team, Least Cost Power Development Plan (LCPDP) and Renewable Energy Feed in Tariffs (FiT).
- ✚ Carried out various Factory Acceptance Test of various material for Power line construction.
- ✚ Prepared implementation schedules of power stations and supervised implementation of power stations' Monitored all environmental issues during construction and ensured compliance with safeguard requirements.

## **Key achievements.**

- Team Member together with the Ministry of Energy and Petroleum in development of the SREP report (2013) and Fit (2012).
- Research: Case study of development of rural community Solar Power Plant- Oloika Solar Power plant and implementation of Oloika and Shompole power plants to power rural communities in magadi, Kajiado County (2013).
- Renewable Energy Development for Off-Grid Power Supply in Rural Region of Kenya programme with KfW organisation.
- A leader in implementation of the SREP projects in REA, carried out various appraisal evaluation with donor funding agencies.

### **3<sup>RD</sup> ASSISTANT ENGINEER, DESIGN**

**Rural Electrification Authority || Feb 2009- Dec 2012.**

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#### **Key duties / Achievements**

- Designed various Off-grid Substation which included: Takaba, Rhamu, Hulugho, Kiunga, Habawein , North Horr, Lokichoggio and Lokori.
- Designed various 33kV and 11kV Power Line Projects.
- Coordinated design, installation and commissioning of substation equipment and protection and control schemes.
  - Carried out design and costing of power line and Substation Projects in DCS and SAP system.
  - Participated in fault analysis and evaluation and Substation upgrade works
- Carried out technical evaluation of construction materials and preparation of report for tender committees
- Ensured adherence to construction standards and good engineering practices during installation
- Carried out various Factory Acceptance Test of various material for power line construction
- Ensured Contractor's activities are monitored and controlled in accordance with schedule, design specifications and contractual requirements.
- Evaluated various World Bank funded Project bid and evaluation report writing.
- Carried out two research projects: Customer transformer reach radius and suitable materials of line and substation earthing.
- Carried out Budgetary estimate for Power Line and substation projects.

### **ASSISTANT ENGINEER, ELECTRICAL POWER DEPARTMENT.**

**Ministry of Energy (Currently Ministry of Energy and Petroleum) || Nov 2007- Feb 2009.**

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#### **Key duties / Achievements.**

- Electrical Energy policy formulation and development.
- Developed the Least Cost Power Development Plan
- (2008) Updated rural electrification master plan
- Coordinated activities of the design and construction teams including multi-disciplinary project inputs to ensure quality of work and timely delivery of projects
- Preliminary design and cost estimates of rural electrification project
- Technical monitoring and evaluation of various rural electrification projects
- Needs assessment and design of solar photovoltaic systems.
- Carried out Quality Assurance (QA) and Quality Control (QC), implement and ensure Quality Management System (QMS) is adhered to on projects. Supervision of photovoltaic projects
- Developed technical standards in collaboration with Kenya Bureau of Standards
- Conducted Feasibility studies of electrical power projects

### Other significant work experience.

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- ✚ **Engineer, Building Services. Norkun Intake Limited. Nov 2006- Oct 2007.** Designed, supervised electrical services in buildings which included, electrical wiring, structured cabling, fire protection and telephone equipments; Project include Landmark building, BAT Offices, Equity Data Centre and more
- ✚ **Internship, Kenya Power. I was trained in** Operation and maintenance of power line Designing and costing estimation of power line and identification of underground cable system fault. June – August 2005
- ✚ **Intern, Electrocom Systems Service. May -August 2004.** I was responsible for building services design preparation of electrical appliances specifications and bill of quantities.
- ✚ **Overseas assignments:** India (Yamuna Power and Infrastructure) FAT, India (Gold stone Limited) FAT and China (Jiangsu Zhongchao Cable Corporation) FAT.

### Education.

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- ✚ **MSc. Electrical Engineering (Power Systems Option) Jomo Kenyatta University of Agriculture & Technology.** 2013 – To date .
- ✚ **BSc. Electrical and Electronics Engineering. 2<sup>nd</sup> Class Honours - Upper Division Jomo Kenyatta University of Agriculture & Technology .**2001-2006.
- ✚ **Kenya Certificate of Secondary Education. Mean Grade – A (Plain) .**1996-1999.

### Other training.

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- ✚ **Certified Energy Manager. 2016.**
- ✚ **Solar Photovoltaic systems. 2015.**
- ✚ **Clean development Mechanism .2013.**
- ✚ **Off grid and Grid Connected Solar Power Systems- (Germany Solar Academy, Nairobi – Strathmore University). 2013.**
- ✚ **Hydro Electric Power Stations (HPGC-EGYPT). 2012.**
- ✚ **SAP system training (Seal Info Tech –INDIA) .2011.**
- ✚ **Public procurement Tendering Process, Evaluation and award of Tender Programme (ESAMI-TANZANIA). 2011.**
- ✚ **Power Systems Planning (KGTRC – ZAMBIA) .2008.**
- ✚ **Electrical Power Engineering for Developing Countries (NCEPU-CHINA) .2008.**
- ✚ **Power Line Design Distribution Engineer Training- (KPLC-KENYA) .2008.**
- ✚ **Strategic Planning and Management of Project (KISWCD-KENYA) .2007.**

### Membership to Professional bodies / Licenses.

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- ✚ **Professional Member, Engineers Board of Kenya (IEK) - A3142.**
- ✚ **Corporate Member, Institution of Engineers of Kenya (IEK)-M5597.**
- ✚ **International member II Association of Energy Engineers.**
- ✚ **Engineers Practising Licence.**
- ✚ **ERC; Electrician Licence –Class A1 No.005263**
- ✚ **ERC: Solar Photovoltaic Technician Licence – Class T3 No. ERC/SPVT/00330**
- ✚ **ERC: Solar Water Heating System Technician –No. ERC/SWHST/00112.**

### **Referees.**

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