Nickson Bukachi

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| Energy Efficiency and Renewable Energy Enthusiast with experience in energy sector policy and regulation formulation and implementation, design and implementation of energy efficiency and renewable energy projects, and research in the energy sector. |
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| 2015-2018: Master of Science in Energy |
| Master's Degree in Energy Technology at Jomo Kenyatta University of Science and Technology |
| 2008-2013: Bachelor of Engineering (Electrical and Electronics Engineering) Graduated with First Class Honors from Moi University |
| 2002-2006: Kenya Certificate of Secondary Education Passed with an A (minus) |
| 13th -26th November 2017: Designing and Managing the High Voltage Direct |
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| Current (HVDC) System |
| The objective of the course was to equip the participants with skills on the design and operation of HVDC systems |
| 26 th August to 7 th September 2016: Knowledge Co-Creation Program (Young Leaders) Renewable Energy Course for African Countries The programme, organized by Japan International Co-operation Agency (JICA) and administered through Hiroshima NPO Center was meant to build capacity on Renewable Energy to selected future leaders in the field. This is on world energy statistics and trends, wind energy, solar energy, geothermal and hydro. |
| 27 th June to 8 th July 2016: Overhead Lines Inspection and Techniques The course involved understanding the various components of the overhead transmission lines and their maintenance |
| 13 th June to 21 st June 2016: Risk Management Training Trained on risk identification, risk assessment and risk response based on ISO31000 and COSO frameworks. This includes fraud investigation, detection and prevention 14 th March to 21 st March 2016: Certified Energy Manager Trained on Energy Auditing and management by Association of Energy Engineers, USA |
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25th to 29th January 2016: Solar Photovoltaic Systems T3 Grid Tie Training

Trained on design, installation and maintenance of Grid Tie Solar Photovoltaic Systems; training by Strathmore University

1st July to 3rd July 2015: Implementation of ISO 9001:2008

Trained on Quality Management Systems (ISO 9001:20008)

13th to 15th May, 2015: Public Procurement

Legal Aspects of Public Procurement: - the Public Procurement and Disposal Act, 2005 and Regulations, 2006; Procurement Process, specification of requirements, evaluation of bids, Governance and Ethical Considerations, and preparation and managing of procurement contract.

9th to 21st November 2014: Applied Context-Based Monitoring Evaluation and Project

Trained on applied context-based energy project Monitoring, Evaluation and Project Management. Sponsored by GIZ Human Capacity Development Programme, Mannheim Germany.

8th to 14th February 2015: Testing of Solar Photovoltaic Systems

Trained on testing of Solar Photovoltaic Systems including batteries, solar panels, solar lantern by Fraunhofer ISE Laboratories organized by Climate Innovation Center, Strathmore University

August 2014: Vocational Training on Design and Installation of Photovoltaic Systems using 'Shiota Method" by JICA

Accredited Solar Photovoltaic Systems trainer

Special Assignments undertaken

- 1. Team Member in the ongoing Kenya Energy Management Regulatory Impact Assessment Study
- **2.** Project Manager in the Kenya Solar Photovoltaic Regulatory Impact Assessment Study conducted in 2018/2019
- **3.** Project Manager in the Kenya Solar Photovoltaic Baseline Study conducted in 2017/2018
- **4.** Member of the Feed in Tariff Committee in Kenya charged with approval of renewable energy projects as provided for in the Kenya's Feed in Tariff Policy
- **5.** Pioneer team member for licensing, monitoring and evaluation of mini-grids in Kenya. Examples of mini-grids participated in include 50 kWp Talek Power

- Limited, and 1.5 MW Cloverfield Limited mini-grids in Kisii and Nyamira Counties.
- **6.** Part of the team that developed mini-grid licensing guidelines for the Kenya Energy Sector and Draft Minigrid Regulations, 2017
- 7. Designed 10 kWp Ngurumani, Magadi mini-grid and multiple embedded solar photovoltaic generation systems in Kenya
- **8.** Currently, developing the Net Metering and mini-grid regulations for the Kenya Energy Sector
- **9.** Judge in the Energy Management Award in the year 2018 and 2019 in Kenya. The Energy Management Award is an annual event organized by the Kenya Association of Manufacturer (KAM) meant to recognize facilities (industries and institutions) that have made major strides in promoting energy efficiency in their operations. The process involves accessing various projects submitted by industry.
- **10.** Technical Portfolio Committee (TPC) member of the Energy Regulators Association of East Africa. The committee is charged with harmonizing the regulatory framework across the East Africa Region.
- 11. Pioneer member of the Standards and Labelling Programme Team in Kenya. The programme enforces the Minimum Energy Performance Standards for Refrigerators, air conditioners, ballast for fluorescent lamps and motors. The is based on the Energy (Appliances' Energy Performance and Labelling) Regulation, 2016. The programme was financed by UNIDO
- **12.** Member of the Kenya Energy Sector working group involved in the development of the "Kenya electricity-sector investment prospectus 2018-2021". The activity involved stakeholders drawn from the various players in the Kenya Energy Sector and Economic Consulting Associates (ECA) leading the process.
- **13.** Member of the Kenyan Working Group involved in the "Integration of non-programmable Renewable Energy in the National Electric System of Kenya Study" together with RES4Africa conducted in 2017:- https://www.res4africa.org/wp-content/uploads/2017/10/PP-8-CESI-ABSTRACT-70.pdf.
- **14.** Member of the Kenya Offgrid Solar Access Programme (KOSAP) Steering Committee. World Bank funded project that targets to electrify 14 underserved counties in Kenya using Solar Minigrids and Solar Home Systems (SHS) fund the project.
- **15.** Conducted Energy Audits for various facilities as per the Energy (Energy Management) Regulations, 2012 including Oserian, Nairobi Plastics, Momul Tea Factory, Moi Teaching and Referral Hospital etc.

Work Experience

May 2019- Current: Senior Renewable Energy Officer, Energy and Petroleum Regulatory Authority, Kenya Responsibilities

- (i) Formulating and implementing of codes of practice, standards and regulatory instruments for the energy efficiency and renewable energy sub sector.
- (ii) Providing technical expertise in the licensing of energy efficiency and renewable energy activities.
- (iii) Carrying out research on energy efficiency and renewable energy resources, technology and its application in the renewable energy sub sector.
- (iv) Carrying out of renewable energy and energy efficiency technical audits.
- (v)Providing input in the development of energy efficiency and renewable energy master plans/strategies and research work
- (vi) Undertaking technical audits and monitor compliance with renewable energy regulatory instruments in the development of renewable energy plans, standards and strategies.
- (vii) Collecting, analyzing, reporting and maintaining of renewable energy data.
- (viii) Preparing and presenting of papers for conferences, seminars and workshops.

December 2013- May 2018: Technical Officer Renewable Energy, Energy Regulatory Commission

The Energy Regulatory Commission (ERC) is the energy sector regulatory agency responsible for economic and technical regulation of Electric Power, Renewable Energy and Downstream Petroleum sub-sectors. This includes tariff setting and review, licensing, enforcement, dispute settlement and approval of power purchase and network service contracts.

Responsibilities:

- Licensing, monitoring and evaluation of energy projects (power generation, transmission and distribution projects) to ensure compliance with the Energy Act 2006 and other supporting legislations;
- Monitoring energy utility audits and resolving consumer complaints;
- Assisting in organizing and co-ordination of different departmental functions
- Assisting in the formulation and implementation of regulations for renewable energy, including solar water heating, net metering, solar PV, charcoal, biogas and Grid Feed-in regulations.
- Conducting of controlled energy audits, licensing of auditors and energy audit firms.
- Ensuring compliance with environment, health and safety and environmental requirements through routine inspections;

- Reporting on Environment, Health and Safety compliance and recommend necessary corrective action;
- Contributing to the development of renewable energy plans/ strategies and research work.

August 2013-December 2013: Technician, Wananchi Group

The company Provides internet, voice, data and pay TV services to residential and corporate customers.

<u>Responsibilities:</u> Testing, troubleshooting and installation of VOiP equipments, decoders and network gear

May 2011-August 2012: Intern, Kenya Power Company

A limited liability company that transmits, distributes and retails electricity to customers throughout Kenya.

Responsibilities

- Handling of customer complaints in the emergency section
- Construction of power distribution lines both overhead and underground
- Maintenance of power lines
- Installation of overhead and underground service cables, phasing out of 11KV repaired cables and trace maintenance

Professional Membership

Certifications

Member of Association of Energy Engineers (AEE) East Africa Chapter Registered Graduate Engineer with Engineers Board of Kenya (EBK)

Certified Energy Manager, CEM by Association of Energy Engineers
Certified T3 PV technician with Energy Regulatory Commission ERC/SPVT/00152

Certified Solar Water Heating Technician with Energy Regulatory Commission – ERC/SWHST/00043

Publications and Conference Presentations

May 11th -15th ,2019: Speaker, 5th Africa Mini Grids Summit on Strenghtening Markets on Offgrid Solutions organized by World Bank Energy Sector Management Assistance Program (ESMAP), Accra Ghana

Ongeri, N.B., Kinyua, R., & Kaberere, K. (2018). Evaluation of Solar Resource and Technical Performance of 180 kWp Commercial Scale Solar Photovoltaic System at Timau, Kenya.

May 23rd-27, 2016: Panelist, Workshop on Upscaling Mini Grids for Least Cost and Timely Access to Electricity Services organized by SREP World Bank Programme, Fairmont the Norfolk Hotel

| | September, 2014 : Speaker, Expert Workshop on Renewable Energy and Water Solutions, WE! Hub, Crowne Hotel, Nairobi |
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| Other Skills | AUTOCAD electrical drawing |
| | 2. Proficiency in MS Office (Word, Excel, Outlook, PowerPoint) applications (Win 98, 2000, XP, Vista, Windows version 7) |
| | 3. Proficiency in technology computing |
| Referees | Caroline Kimathi Ag. Director Electricity and Renewable Energy |
| | Energy and Petroleum Regulatory Authority |
| | P.O. Box 40160 – 00100 |
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| | Dr. Keren Kaberere |
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