

Profile

Joseph Njuguna has over fifteen years of extensive experience in the Energy Efficiency, Renewable Energy and Project Management fields. He is currently an Energy Consultant at Energy Advisory Ltd. He has been involved in private and public sector energy projects funded by various Development Partners in Kenya like United Nations Development Programme (UNDP), International Finance Corporation (IFC), Global Environment Facility (GEF), AFD, DANIDA and GIZ.

He worked in the renewable and energy efficiency field for a nationwide Programme executed in Kenya (GEF-KAM). Through the initiative, Kenyan industries and facilities achieved substantial monetary savings. He has undertaken assignments for IFC under the Climate Change Investment Program in Africa (CIPA) Kenya Program targeting Renewable Energy & Energy Efficiency projects in Kenyan facilities. He has worked with the Ministry of Energy in Uganda as an Energy Efficiency Expert in a countrywide energy management program (Power Sector Development Operations).

He has also developed a strong knowledge of Energy efficiency standards and labelling through his previous experience with the GEF and UNDP as a National Project Manager for a Standards and Labelling Programme executed in collaboration with the Ministry of Industrialization and Enterprise Development. He spearheaded successful implementation of the project that resulted into the first Minimum Energy Performance Standards and labelling in Kenya.

He has also been involved in feasibility studies of solar mini-grids in off-grid areas of Kenya undertaken by Rural Electrification Authority (REA) and funded by the World Bank. He has recently undertaken a Regulatory Impact Assessment of the proposed new Mini Grid Regulations in Kenya through the GIZ funding. He has also previously worked as a consultant in the Institutional Strengthening Projects for the Kenya Power & Lighting and Kengen companies, where he gained a good understanding of institutional management.

He holds an MSc. in Management and Implementation of Projects from the University of Manchester (UK), an MBA and BSc in Electrical Engineering from the University of Nairobi. He has participated in numerous energy training and workshops locally and abroad in addition to having prerequisite office IT skills. He is certified by the Association of Energy Engineers (USA) as a Certified Energy Manager (CEM) and Certified Measurement and Verification Professional (CMVP). He is a Category A licensed Energy Efficiency Auditor by the Kenya's Energy Regulatory Commission and has undertaken over 100 Investment Grade Energy Efficiency Audits in Kenya for Industrial and commercial facilities.

He is the 2019 Award Winner for AEE's Sub-Saharan Africa Region Energy Engineer of the Year.

Education

- MBA** University of Nairobi, Kenya (Finance), 2014
- MSc.** Management & Implementation of Projects, University of Manchester, UK, 2007
- BSc.** Electrical Engineering, University of Nairobi, Kenya, 1997
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Professional Certification / Membership

- Certified Energy Manager (CEM) – Association of Energy Engineers (AEE), USA
- Certified Measurement and Verification Professional (CMVP) – AEE
- Category A - ERC Licensed Energy Auditor
- Member – Association of Energy Professionals in East Africa (AEPEA)
- Member – Kenya Renewable Energy Association – KEREAA
- Registered Graduate Engineer – Engineers Registration Board (ERB)
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Professional Experience

1. Energy Advisory Limited

July 2015 – To date

Position: *Energy Consultant*

- Contracted as the National Consultant by Copenhagen Center for Energy Efficiency to facilitate the development of the 1st National Energy Efficiency Conservation Strategy for Kenya.
- Has undertaken over 80 detailed and Investments Grade Energy Audits in selected industries, building facilities and commercial enterprises as a Registered Energy Auditor Category A by Energy Regulatory Commission. These audits are for investments and compliance with the new ERC Energy Management Regulations, 2012. Key Sectors include: Agriculture, Food, textiles, paper, cement steel and hotels
- Contracted by the Kenya Association of Manufacturers under the Green Growth Programme funded by DANIDA - Denmark to undertake energy efficiency and resource audits.
- Conducted technical evaluations for the Center for Energy Efficiency and Conservation (CEEC) based at KAM. The exercise involved assessment of energy efficiency performance for enterprises participating in the Annual National Energy Management Award scheme.
- Assisting the Clean Cooking Alliance to implement the Standards and Labeling Program for cookstoves in Kenya. Key tasks undertaken include conducting a Training Needs Assessment for Clean Cooking Alliance of Kenya on Standards and Labeling for Cookstoves. Development of labeling formula for the voluntary program.
- Contracted by Bureau Veritas to undertake verification audits for ISO certification
- Appointed as the Kenya's Institutional Advisor for the CLASP (USA) which is the main executing agency for the Kigali Cooling Efficiency Program (K-CEP) that is assisting governments comply with the Kigali Amendment of the Montreal Protocol. Key achievements include
 - Review of existing regulations and policies
 - Mapping process for import procedures of energy appliances

- Review of Existing Minimum Energy Performance Standards
- Liaised with relevant agencies to enhance the compliance and monitoring scheme
- Facilitated training for project partners
- Engaged by the UNDP and USAID under the Low Emission & Climate Resilient Development (LECRD) Programme to spearhead the 2nd Phase of development of Minimum Energy Performance Standards (MEPS) and labelling in Kenya. Tasks and achievements included:
 - Developed a justification analysis for the development of three new MEPS standards and labelling in Kenya covering widely used appliances and equipment
 - Formulated a shortlist and a desk-top review of the most appropriate international appliance Energy Performance Test Procedures, MEPS and Energy Labelling schemes for adoption in Kenya for the selected appliances.
 - Estimated the energy savings on implementation of the MEPS and Labeling annually and over the next ten years.
 - Determined the economic and social impacts of the enforcement of the energy efficiency standards for the selected appliances in Kenya.
 - Calculated expected Carbon Dioxide Emission reduction, based on the current Grid Emission Factor (GEF) for Kenya annually and over the next ten years.
 - Coordinated the Thematic Working Groups (TWG), ERC and the Kenya Bureau of Standards (KEBS) to develop appropriate test procedures and MEPS for Kenya.
- Undertook an assignment for a financing programme funded by AFD/DFID aimed at the promotion of private initiatives in Green Mini-Grids to improve access to electricity in Kenya. Achievements included
 - Coordination of field survey in targeted 30 off-grid sites in Kenya;
 - Preparation of Demand load forecast and Market analysis for Conducting pre-feasibility and feasibility studies for the mini grids
 - Economic and financial analysis of the Off grid project in the targeted sites
 - Development of a Productive Use of Energy (PUE) Plan in the targeted sites
- Worked in collaboration with IED (France) on development of mini grids in the off grid areas of Kenya for the Rural Electrification Authority (REA) Programme funded by the World Bank. Tasks and responsibilities involved
 - Coordination and preparation activities for meetings and field visits, including logistics
 - Undertaking Financial and Economic analysis of the proposed solutions for targeted sites
- Delivered training in energy management for industry personnel and technical operators
- Involved in the formulation of Regulatory Impact Assessment for the proposed Kenya Mini-Grid Regulations

2. UNDP /GEF / Ministry of Industrialization

July 2012 – June 2015

Position: National Project Manager – Standards and Labelling (S&L) Programme

- Managed the S&L Programme that led to the development of the Minimum Energy Performance Standards in Kenya. This involved planning and implementing technical activities, providing support to Programme stakeholders including Kenya Bureau of Standards, ERC, KAM, private enterprises, participating financial institutions and end-users of targeted appliances.
- Managed the preparation of Project awareness materials for all the stakeholders and participated in nationwide forums to promote the new standards and labels

- Oversaw the development of training materials for project partners and stakeholders;
- Coordinated the development of electronic media adverts for the MEPS
- Coordinated the activities of both national and international consultants working for the Project assignments. These included supervision of the following assignments:
 - Policy and Regulatory framework Review for implementation of Energy Efficiency Standards and Labels in Kenya
 - Impact assessment of MEPS implementation in Kenya
 - Review of the Pre-shipment Inspection and Introduction of MEPS in Kenya
 - Training Needs Assessment for Implementing Partners
 - Preparation and delivery of training on Energy Standards and Labels for appliance dealers, retailers and importers as well as implementing staff from KEBS, ACA, NEMA and KRA.
- Liaised with the Kenya Bureau of Standards as well as other accredited internal standard bodies to develop suitable MEPs to be implemented in the country.
- Spearheaded the development of the MEPS regulations with ERC as the lead agency
- Prepared the project equipment lists and annual operational budget
- Prepared Project's monthly and quarterly technical reports for the Project Steering Committee
- Organized technical review meetings to develop the standards.
- Represented the programme in international forums and made presentations on outcomes and achievements.
- Participated in the evaluation and monitoring of equipment and appliances in the field for the purposes of monitoring awareness and impact.

3. Energy Track Associates

Oct 2009 – June 2012

Position: Energy Manager

- Coordinated a team of energy specialists undertaking a study on 'Reforms to Enhance Energy Investment Infrastructure in East Africa' for World Bank and GVEP
- Worked in a team of consultants undertaking the Kenya national energy baseline study under the 'East Africa Scaling-Up Strategy for Access to Modern Energy Services'
- Undertook consultancy assignments for the International Finance Corporation (IFC) under the Climate Change Investment Program in Africa (CIPA) Kenya Program. These included:
 - Energy Efficiency and Resource audits at selected industrial facilities
 - Identification and Cost Benefit analysis for adoption of green technologies in building sector
 - Development of Energy Efficiency Case studies in the milling sector.
 - Preparation and Delivery of Training on Energy Efficiency in Kenya
 - Review of Green Housing/Mortgage market in Kenya
- Contracted by the Kenya Association of Manufacturers to undertake detailed audits in selected Kenyan industries and commercial facilities
- Served as the National Counterpart for the IED (Innovation, Energy & Development Consultants, France) to develop a framework for the creation of an AFD €30 million credit line for Renewable

Energy and Energy Efficiency Projects targeted at SMEs in Kenya. This has now been increased to €80 Millions.

4. Ministry of Energy and Minerals Development, Uganda Dec 2008 – Oct 2009

Position: *Energy Efficiency Expert*

Engaged as an Energy Efficiency Expert to manage effective implementation of nationwide energy programs funded by the World Bank. Among the main tasks undertaken included:

- Supervision of the energy efficiency auditing exercise by external consultants. Over 180 energy audits were conducted in the following institutions: Industries, hotels, public buildings, hospitals, universities, schools, police barracks, National water facilities and municipal street lighting
- Review of the energy audit reports provided by the consultants and providing appropriate comments to enable finalization of the reports and payments processing.
- Review of the implementation tender documents provided by the consultant to ensure they conform to the World Bank Procurement guidelines.
- Supported the Energy Department in the development and implementation of viable energy programs

5. United Nations Development Programme (UNDP), Kenya Sept 2001 – May 2006

Position: *Project Engineer, GEF-KAM Energy Efficiency Program*

Key tasks and responsibilities included:

- Project identification, feasibility analysis and implementation
 - Prepared annual budgets and work plans for energy audits
 - Performed desk analysis of energy performance for detailed industrial energy audits and established energy baseline parameters and subsequent Key Performance Indicators (KPI)
- Program Management and Coordination activities
 - Developed the proposal and coordinated subsequent setting up of Kenya Industrial Energy Efficiency Network (IEEN). Identified savings equivalent to US\$ 0.5 Million for members
 - Implemented project quality procedures under the ISO: 9002 Quality Management System
 - Developed Terms of Reference (ToRs) for project contractors and consultants
 - Managed the specification, procurement and tracking system of energy program equipment
 - Developed qualification criteria for the Kenya Energy Management Award Scheme
- Countrywide awareness and training programmes
 - Organized and successfully facilitated 8 workshops and 15 training seminars on energy efficiency with attendance of over 1000 SME operators
 - Produced publicity materials and coordinated production of energy program annual reports
 - Developed training materials for industry operators and delivered specific training modules on energy including Financial Engineering, Energy Management and Auditing.
- Knowledge Management System (KMS) Project
 - Spearheaded the development and supervised the implementation of the KMS project to enhance knowledge retention for energy programs undertaken at the KAM head office

Relevant Trainings/Workshops

- Cleaner Production & Technology Integrated Environment Management - India, March 2018
- World Energy Engineering Council Conference,– Atlanta USA, Sept 2017
- Green Energy & Low Carbon Development – Copenhagen Denmark 5-16 September 2016
- Corporate Governance Course for Directors - Corporate Governance Center, April 2015
- Monitoring and Verification International Workshop - Pretoria South Africa, August 2014
- International Electrotechnical Commission (IEC) General Meeting – Oslo, Norway Oct 2012
- International Energy Week – Paris, France , April 2012
- Rural Electrification Conference: Strategies & Challenges in Africa - MBS , March 2010
- IFC Training on Financing of Energy Projects - Nairobi, November 2009
- Energy Management & Cleaner Production in SMEs-Maastricht, Netherlands, Oct2004
- Financial Engineering Training - Econoler International , Quebec, Canada, August 2003
- Implementation of Energy programs - Institute for Energy Technology - Norway, April 2002

Computer Skills

Office Packages	:	Microsoft Office Professional Suite, AutoCad, Photoshop
Project Management	:	Microsoft Project
Risk Analysis	:	Monte Carlo Simulation
IT Certification	:	European Computer Driving License (ECDL)
Load Forecast	:	Demand Analyst

Languages

English (Fluent), Kiswahili (Native)

Personal Details

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References

Available on request
