KENNEDY MWANGI NGACHA || Renewable Energy Graduate|| Energy Projects Engineer

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▼ Personal Info

Year of Birth 1996 | Nationality Kenyan | Gender Male

▼ Summary

RENEWABLE ENERGY PROFESSIONAL | Green Energy Enthusiast | Energy Impact and Access Champion |

An adaptable energy professional with a background in renewable energy-and with immense experience in the East African energy landscape working to implement energy access and impact projects. I have worked in different capacities in development and implementation of solar PV projects, development of energy management programs, green projects financing modelling, electric mobility advancement, testing and commissioning of solar systems and operation and maintenance implementation.

I endeavor to work in a field that has measurable impact and a career in renewable energy is the best option. I am a green energy professional who aspires to be a leader in the same field. I believe in development of sustainable businesses that will steer the world towards achieving equity and development, including leap frogging effective technologies to promote clean, reliable energy uptake. I am willing to explore knowledge avenues and consistently learn to stay ahead of the game to always deliver the best value.

▼ Core Competencies

Project Management | Engineering Design | Quality Control | Collaboration | Leadership | Critical Thinking |Integrity | PV Systems Development | Data Analysis | Research | Co-ordination | Microsoft Office Landscape | AutoCAD applications | 3D Drafting | Operations Management

▼ Selected Professional Experience

August 2021 - Date

Head of Engineering - Solar Projects, Glosec Systems Limited

Lead in the Engineering Department. I coordinate and implement technical research and advancement for the Company. Project Engineering for C&I Solar PV installations, PV system testing and diagnosis, PV Design, Operation and Maintenance, remote monitoring of PV installations.

The roles include:

- Simulate and design solar projects technical details using industry accepted software (PVSyst, PVSOL, HOMER, Sunny Design)
- Train and do capacity building of a solar installation team and manage field installations
- · Documentation of solar projects including producing all required drawings, testing commissioning documents
- Performing PV projects viability and feasibility
- Preparing and submitting quotations and support sales teams
- Troubleshooting and maintenance of solar systems
- Run all operations and maintenance implementation for all plant assets owned by Glosec Systems
- Perform assigned duties as the Vice Chair of the Glosec HSE Committee

Successes include:

- Designed, installation team management, tested, and commissioned a 1MWp grid tie PV project with step up from 415V to 11 kV level in Athi River.
- Oversaw system diagnostics, operations, and maintenance for 10 solar projects (~2.2MWp portfolio) for Glosec
- Completed numerous Solar PV solar project development designs and financial proposals for 10MWp projects in active pipeline
- Continuous training junior engineers on Electrical, Energy and PV audits.

April 2021 - June 2021

Projects Engineer, Miale Solar Inventions Limited

Responsible for the engineering and technical disciplines needed to complete a project. The Project Engineer works to plan projects, establish project criteria, coordinate project reviews, and ensure the proper implementation of project elements for the F+EPC (Financier and Engineering Procurement and Construction Firm).

Key Roles include:

- Prepared, scheduled, coordinated, and monitored the assigned engineering projects as Projects Engineer
- · Monitored compliance to applicable codes, practices, QA/QC policies, performance standards and specifications
- Performed overall quality control of the work (budget, schedule, plans, personnel's performance) and reported regularly on project status
- Assigned responsibilities and trained the project team and implemented the QHSE procedures on work sites
- Reviewed engineering deliverables and initiate appropriate corrective action
- Determined client's requirements and translating them into an actionable plan by a team of workers
- Organized project tasks into an actionable timeline
- Developed proposals and tender responses

Successes include:

Designed, Supervised, and commissioned grid tied and hybrid PV projects for Miale Solar Inventions Limited

Oversaw the implementation of projects from client meeting to financial close for the financing entity

Feb 2019 – November 2020

Projects Manager - Solar system EPC, E-Mobility, Knights and Apps Limited

The roles included:

- Managing different technical installation and maintenance teams, receiving reports from supervisors, and tracking performance as per set targets.
- Coordinated internal resources and third parties for successful execution of projects
- Ensured that projects delivery is on time, within budget and scope outlined
- Developed project plans using MS Project and other tools to track and update various management levels of projects progress and logs
- Used various verifiable techniques to manage changes in project scope, schedules, and costs
- Measured and reported on the project performance against the various management and client objectives
- Reported on projects progress, incidents, variations, solutions to management
- Managed the relationship with company clients and stakeholders
- Performed risk assessment and management during the project stages
- Created and maintained a comprehensive project documentation repository

Success Include:

- Managed a \$2 million solar project for an Oil and Gas Conglomerate spread across Kenya, Uganda, and Tanzania
- Supported EPCs with project development, systems testing and commissioning

Projects Design Engineer - Solar system EPC, E-Mobility • Knights and Apps Limited

Over 5 MW project engineering and development for C&I Solar PV installations, PV system testing and diagnosis, PV Design, Operation and Maintenance, remote monitoring of PV installations

The roles included

- Simulated and designed solar projects' technical details using industry accepted software such as PVSYST, PVSOL, SAM,
 HYSIZE, Helioscope, SMA Design, Greenmatch, Odyssey, and Excel based tools. This includes design and engineering of energy
 storage projects and mini grids.
- Assessed projects viability and feasibility with presentation to management and clients
- Sketched 2D, 3D models and engineering drawings for various projects using CAD proprietary software
- Conducted energy requirements assessments for domestic users to C&I energy consumers
- Developed financing models for different customer groups, such as lease models, PPA, and outright purchases for project bankability, grants, and bidding purposes
- Ensured that designs are compliant to acceptable industry standards, safety standards, environmental compliance standards and are future proof
- · Developed client contracts to enforce Operations and Maintenance of solar power plants through O&M schedule
- Monitored plants remotely for fault detection, diagnostics and trouble shooting and correction
- Management of information at the Operations and Management Department –client contracts, payments schedules, maintenance schedules, remote plant monitoring and performance reporting
- Tested power plants and issued test certificates as per minimum IEC 62446 standards
- · Enforced corrective, preventive and condition-based maintenance schedules for firm's running plants

Successes Include:

- · Designed, supervised installation, testing, and commissioning of over 200 small scale to medium scale PV plants,
- Successfully maintained over 10MW of installed PV portfolio with grid tie, hybrid, and off grid projects
- Designed, and installed EV charging infrastructure for clients.
- Among the projects successfully completed include IBERA Africa (656 kWp), Total PLC Kenya, Uganda, and Tanzania (Over 2 MWp), Megapack Solar projects (1 MWP), Mwangaza Jesuit Center (78kWp, 7830Ah), Daughters of Charity (52kWp, 5220Ah), Missionary Benedictine Sisters (103kWp,10950Ah)
- Successfully implemented design, EPC, and maintenance of 7 mini grids owned by REREC

Team Lead, Electric Mobility Department – Drivelectric Kenya Knights and Apps Ltd

- Developed electric mobility business cases for different client levels and applications
- Researched and presented on trends and developments on electric mobility trends
- Engaged in the revision and adoption proposals of Kenyan electric mobility standards developed by KEBS
- Client engagement and presentations at industry conferences
- Post blogs and run social media accounts for the Drivelectric department

Successes Include

- Installed EV charging infrastructure for our clients, participated in the KEBS technical committee on electric mobility standards adoption.
- Test drove and curated customer profiles for Nissan Leaf and Nissan e-NV200 potential users
- Created and dispensed industry data on functionality and suitability of EVs in Kenya

May 2018 - September 2018

Intern, Junior Developer• Knights and Apps Limited

Energy bills analysis, project reconciliation training, field deployment for 33 small sized PV storage and solar water heating installations for 33 health centers in Bungoma County under the Maternal and Newborn Improvement project

Relationship Officer, Equity Bank Buruburu Branch ELP

My roles included:

- Accepting customer deposits to the appropriate accounts
- Cashing cheques to customers and doing general money withdrawals for the customers
- Keeping an updated record of all teller transactions

▼ Selected Professional Certifications and Credentials

BSc. Renewable Energy Technology and Management, Jaramogi Oginga Odinga University of Sci and Tech, Kenya **Decentralized Renewable Energy training certificate**, Micro Grid Academy

Gender Foundation Training, USAID, TRI

Licensed T3 technician, Energy and Petroleum Regulatory Authority

German Project development for C&I Solar PV projects C, GIZ – German training week Strathmore University

Trained on full Life cycle of PV project Management (developing, financing, construction, commissioning and Operation and Maintenance)

Energy Service Company (ESCO) Model Training Certificate, Ecoligo, KAM Kenya

Project Management Skills training, Recourse Four Kenya Consultants Ltd Nairobi Kenya

Project Management, Monitoring and Evaluation with MS Project, Kenya Institute of Project Management

AUTOCAD Training Certificate, College of Advanced Technology Nairobi

Water and Energy Products and Application Course, Davis and Shirtliff Nairobi

Online certifications on

- UN CC: Learn Specialized Module on cities and climate change
- Greenmatch Financing modeling of renewable energy projects
- Greenmatch Financial Asset management of renewable energy
- Udemy Professional Communication Essentials, Operations Management
- Forester University The Three Phases of Microgrid Project Development
- EdX The Transition to the decarbonized economy of tomorrow

▼ Projects and Research

2021 - 2022: Co-author of. EV Market Barriers in Kenya: Market Survey 2021 https://aemda.org/knowledge-hub/

2018 - Industry presentation on Solar EPC Design, Installation, and Commissioning of Embedded PV Systems. Best Practices for EPRA

Societies and Groups

- Member of AEPEA (Association of Energy Professionals Eastern Africa Kenyan Chapter)
- Member of AEMDA (Association for Electric Mobility & Development in Africa)
- Member of YALI Alumni Group Kenya
- Alumni of Equity Group Foundation 2010 and Equity Leadership Program 2014)
- Judge of Kenyan 2019/2020 Hult Prize Strathmore Edition

▼ References

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