

COMPANY PROFILE



ENGENIOUS ENERGY SOLUTIONS CO. LTD

Muringa Groove, Kilimani

**P.O. Box 59592-00100,
NAIROBI.**

**Tel: +254 722 588 696,
+254 718 277 486**

E-mail: info@engenioussolutions.co.ke

EES CO. LTD

Our Vision

To be among the most preferred engineering services provider in the electrical power systems, Solar PV renewable energy, building services & water works services within the East African region whilst maintaining the highest level of professionalism, efficiency and business etiquette.

Our Mission

To uphold the highest level of professionalism, safety culture, integrity and honesty as we strive to provide distinct professional engineering services that always guarantee the clients' satisfaction in terms of quality and cost effectiveness.

Core areas of specialization:

- ✓ **Engineering, Procurement & Construction management**
- ✓ **Electrical Power Systems Design, Implementation & Commissioning**
- ✓ **Building works, water works & Contracting**
- ✓ **Engineering Accessories Supplies**
- ✓ **Surveillance & Intruder Systems**
- ✓ **Automation & Control Systems**
- ✓ **Off-grid, grid-tied & hybrid Solar PV Systems**
- ✓ **Solar Water Heating & Heat pumps Systems**
- ✓ **Industrial Power Quality & Energy Audits**
- ✓ **HVAC Systems Design, Installation & Maintenance**

About us

- Engenious Energy Solutions Co. Limited (EES) is an indigenous fully registered company in Kenya. We are registered contractors and expertise in the Solar PV renewable energy, Solar water heating systems, water works services, electrical power systems installation, testing & commissioning, Surveillance & intruder systems, Industrial power & energy audits, HVAC systems design, installation & maintenance.
- The company was founded in the year 2021 by a team of dedicated engineers. Since inception we have continued to transform into a wholly registered limited company both with the technical and financial capacity to handle from small to complex projects.
- We have a competent team of experienced and well-trained technical personnel well equipped to handle projects from inception to commissioning.
- EES Co. Ltd is committed to cordial business ethics and corporate compliance to engineering standards and local statutory requirements.
- We believe in efficiency and providing cost-effective services to our clients to achieve optimal profits out of their operations with less input cost.
- EES Co. Ltd is concerned with safety and plays a key role in maintaining high standards of safety within the workplace, Safe operation of plant machinery and equipment.
- We derive our competitive strength from unrivaled combination of professionalism, knowledge and skills, experience and expertise, commitment and dedication to every project.
- EES Co. Ltd provides help and support to policy makers within business, the safety industry or at governmental or inter-governmental levels.
- EES Co. Ltd has distinguished herself as a premier engineering company, playing a prominent role in a wide range of value-added and specialized services in power generation & distribution in sub-stations, manufacturing industries, building services and the renewable energy.

Management

EES Co. Ltd is managed by professionals, who are trained engineers with vast experience in electrical engineering and mechanical engineering. Our team is comprised of expertise in other related fields, including ICT, architectural works and civil works.

OCCUPATIONAL HEALTH & SAFETY POLICY

We are fully compliant with the Occupational Safety & Health Act, 2007, having participated in numerous training programs. We are committed in taking full responsibility for safety of our employees at the work sites. We do risk assessments upon the commencement of the projects and ensure that all the preventive and protective safety measures are complied with including, but not limited to; ensuring that the correct personal protective equipment are worn at all times at the work sites, issuance of the work at height permits, precautionary measures put in place while working at hazardous areas, and utilization of suitable ladders and scaffolding. It's our responsibility to offer regular training on safety for the employees and a constant monitoring and evaluation of the safety standards adopted by the employees with prompt reports on any imminent hazards noted in their operations.

Our highest quality services include:

- ❑ Competitive annual testing & inspection charges
- ❑ Engineering Design & Feasibility Study.
- ❑ Appointments agreed prior to visiting client premises
- ❑ Prompt reporting to the customer's service delivery.
- ❑ Cost effective quotations upon request

ENGINEERING SERVICES OFFERED

Economic Valuation: Through detailed analysis of current and projected costs and revenues, our experts will present a comprehensive financial and economic analysis which is key to informed decision making.

Detailed Project Design Complete with Drawings: Based on more detailed analysis of conceptual analysis of the available options, we will carry out detailed designs including more In-depth field investigations, advanced analysis of the various factors that will determine selection, dimensioning and placement of the project components.

Contract Document Preparation: Based on the needs of the Client and the complexity of the project, comprehensive documentation will be produced to enable efficient procurement.

Cost Estimates: We will prepare the appropriate Engineering estimates for the project to enable informed decision making by the client. The estimates are based on our detailed knowledge of the market conditions and analysis of market trends.

Evaluation of Tenders: We provide expert advice and assistance to the Client through the various stages of the procurement process including packaging of contract documents, guiding the advertising process, pre-bid and pre-proposal conferencing, developing bid evaluation criteria, and evaluation of submitted bids.

Contracts administration & Consultancy: We provide expert Consultancy services to guide the Client through all the stages required for the successful execution of Contracts Works.

Supervision of Construction works: We provide for and on behalf of the Client, supervision services in engineering project works.

Core Values

- High standard of integrity
- Honest
- Professionalism
- Responsibility
- Innovative
- Compliant
- Teamwork

POWER QUALITY AUDITS & ENERGY AUDITS SOLUTIONS

With a decade in power sector industry experience, EES engineers offer leading professional power quality audits and energy audits solutions to her clients. In new industries development, we help investors arrest potential power quality problems right from the design stage through engineering modeling and propose appropriate solutions.

In the existing industrial set-ups, we identify and provide solutions to power quality problems through measurements, analysis and design. The power quality audits & solutions help to protect the industrial equipment from premature failures and lower the maintenance costs significantly, while the energy audits & solutions help to realize energy conservation, reduce energy costs and lower the carbon foot prints.

INDUSTRIAL INSTRUMENTATION & CONTROL SYSTEMS SERVICES

With the increasing complexity of industrial processes and the need to improve their efficiencies, the need for instrumentation and control systems are becoming popular. Use of VFDs, soft starters for induction motors, PLCs and SCADA systems in the manufacturing industries improves the operational efficiency further. Our engineers are well acquainted with the necessary skills needed in the industrial engineering operations.

CUSTOMIZED INDUSTRY SPECIFIC TRAINING

For sustainability, we help our client to build internal capacity to manage their installations and systems by offering customized and Industrial Specific Trainings.

RENEWABLE ENERGY SERVICES

Having been approved by the Energy & Petroleum Regulatory Authority as the Solar PV professionals, we offer quality, reliable and cost-effective renewable energy services. We design, evaluate and develop the appropriate solar water heating systems and solar PV systems that suit the client's need using the recommended solar PV software programs.

Approved Energy Auditors in our team are capable of exhaustively evaluating the facility's energy consumption trends using standard energy engineering calculations to analyze efficiencies and calculate energy and costs savings based on improvements and changes to each system. Conservation measures and economic analysis recommendations are submitted to the client for implementation.



MEDIUM & LOW VOLTAGE POWER SUB-STATION SERVICES

EES Co. Ltd provides Substation engineering services which range from design, installation, testing, commissioning and maintenance of the following medium voltage substation equipment;

- ☐ Medium and Low-voltage switchgear
- ☐ Distribution transformers
- ☐ Stand by Diesel Generators
- ☐ Power Factor Correction Banks
- ☐ UPS systems, battery banks & battery chargers
- ☐ Control and protection panels
- ☐ Copper and aluminum bus bars
- ☐ Earthing systems.
- ☐ Cable management systems



Routine Maintenance on Distribution Transformers:

We perform distribution transformers' oil purification/filtration processes meant to maintain the following oil properties at the permissible operating conditions:

- I. Total Moisture Content (maximum): 10 mg/kg,
- II. Di-electric Breakdown Voltage (45-65 kV),
- III. Total Dissolved Gas (maximum): 1%.

Heating, filtration & degassing process using the oil purification equipment. Di-electric Strength Oil Tester determines whether the minimum permissible di-electric break down voltage is achieved after the oil purification process completion.



HVAC SYSTEMS IN THE COMMERCIAL & RESIDENTIAL BUILDING PREMISES

Approximately 40% of the total building energy consumption is attributed to the HVAC (Heating, Ventilation & Air Conditioning) systems, more especially during the hot weather seasons. We're specialists in HVAC systems in the commercial and residential buildings, Hotels, Hospitals, Shopping mall, etc. ranging from design, supply, installation, Testing, Commissioning and Maintenance of the systems.



Surveillance & Security Solutions

We design, install and maintain fully integrated electronic security solutions, including CCTV cameras, intruder alarms, access control and barriers. Our systems incorporate the latest digital technology including biometric systems, network integration and remote monitoring.

SMART SURVEILLANCE SYSTEMS (CCTV)

Engenious Energy Solutions Co. Ltd offers a comprehensive range of CCTV surveillance systems designed to increase the level of security in business premises. By Understanding our client's overall security requirement. We can choose the most appropriate camera system for the risk at hand and the finance available.

Key Features: HD IP Cameras | Vandal Proof Cameras | IR Cameras | 360 Degree
Cameras | Fish Eye Cameras | ANPR Cameras | Thermal Cameras | Network Video
Recorders | Video | Analyti

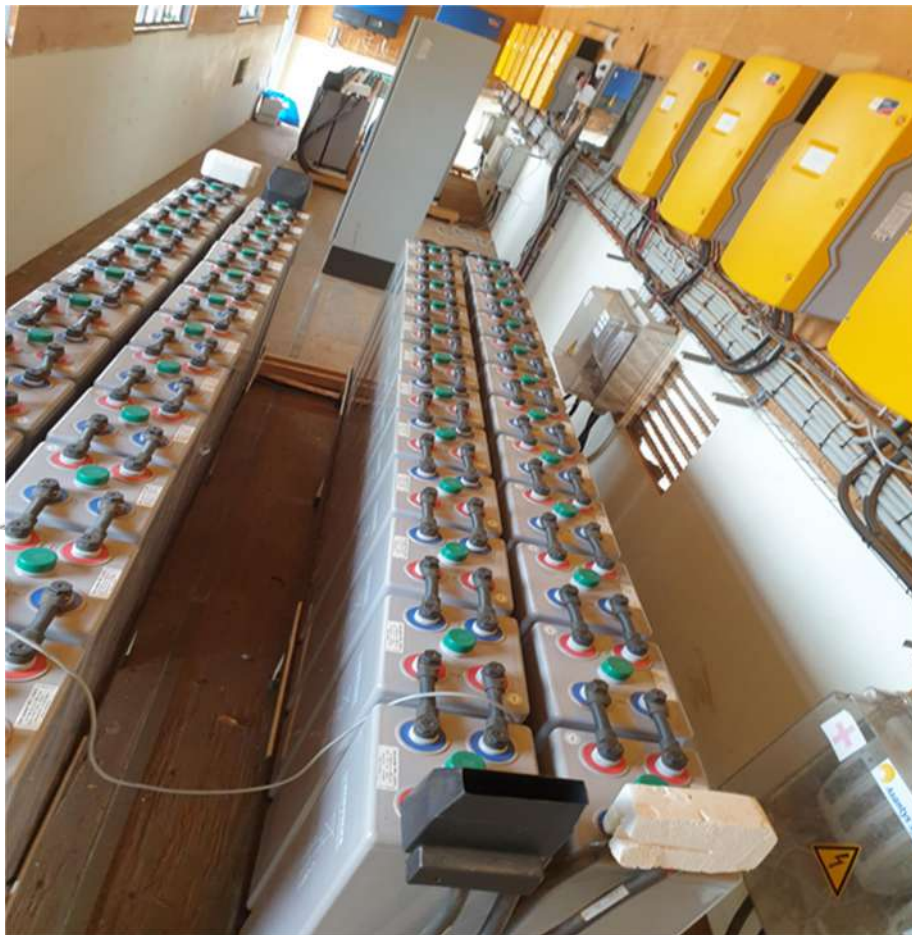


Some of the areas where we offer security solutions

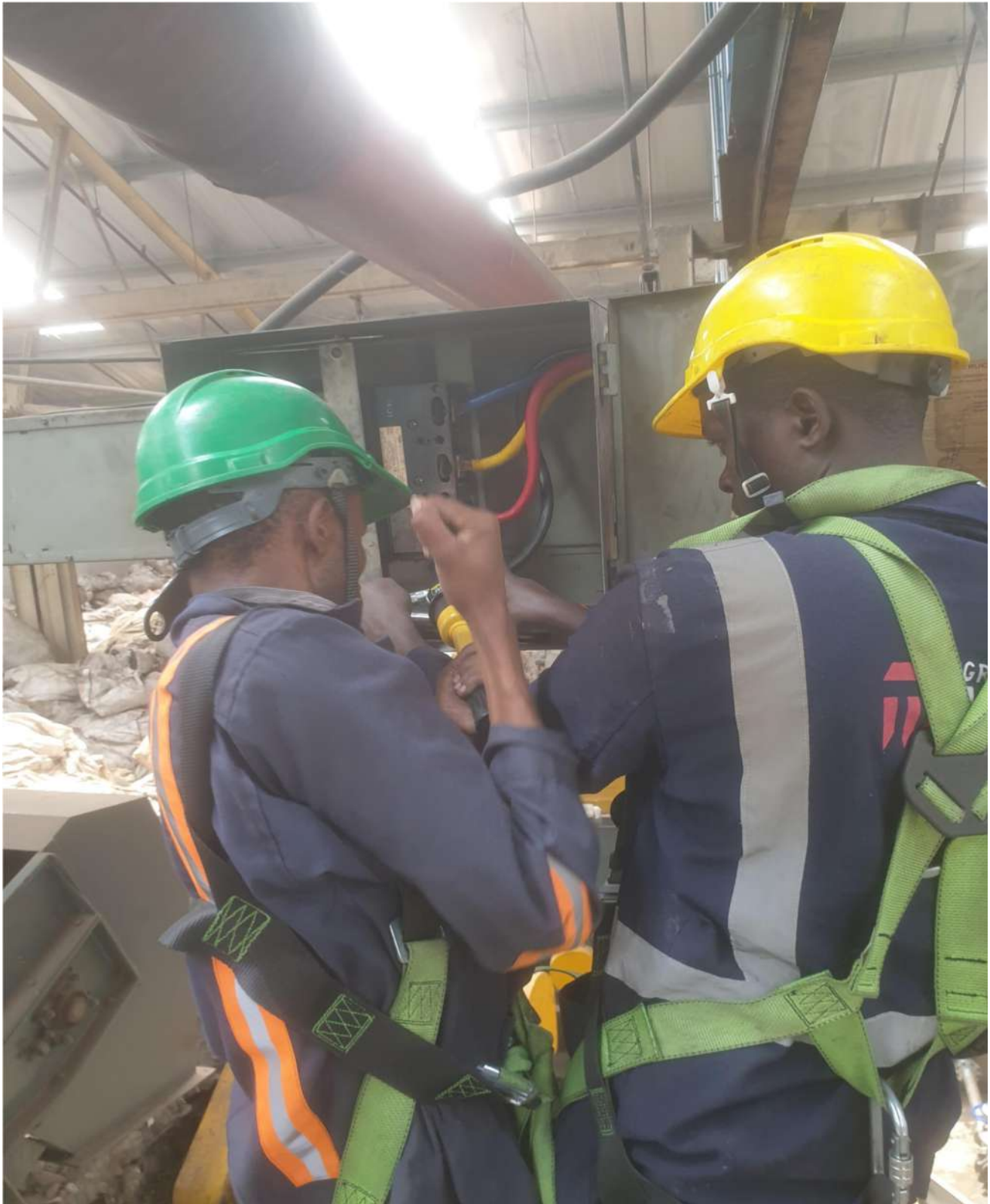
- CCTV – We provide solutions that enhance your situation awareness.
- Access control – Biometric, Card and pin-based solutions.
- Time attendance – Biometric based technology based on a set up that allows the employer to monitor employee attendance.
- Luggage and handbag scanners
- Walk-through metal detectors
- Under-vehicle surveillance systems
- Library security systems
- Network antivirus solutions
- Advanced firewall solutions
- Intrusion protection for systems and databases
- Application and web security

FIRE PROTECTION SYSTEMS

Our team is composed of experts in designing, developing, installing and maintenance of all range of conventional, addressable fire detection & Alarm, fire suppression & voice evacuation systems.



60kV Shimbir Fatuma Solar PV Hybrid system after the project commissioning in Elwak, Mandera County (April 2019)



Medium voltage switchgear terminations during the Implementation of the Advanced Metering Infrastructure Project in Nairobi CBD.



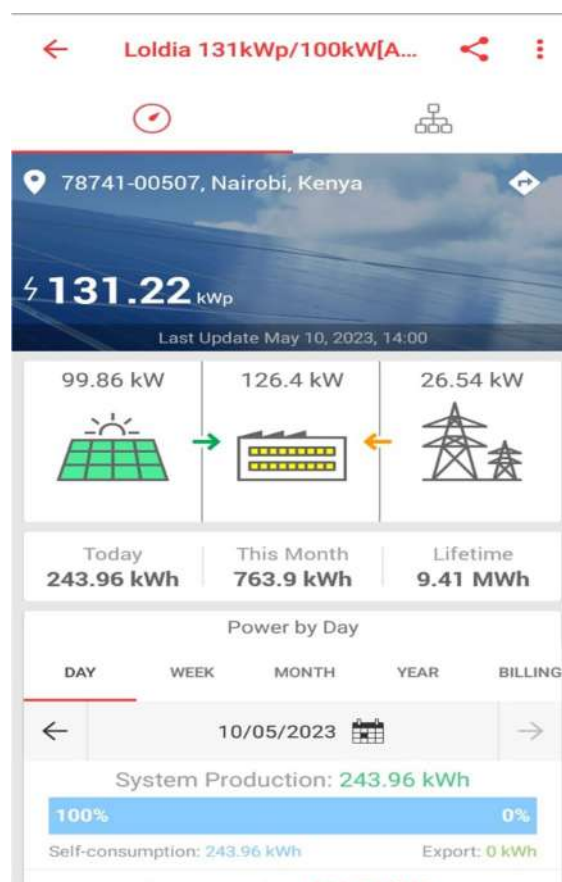
At Elwak, Mandera County. 20kWp Solar PV renewable Energy project ongoing, comprised of a 7.5kW Borehole Solarization & Water Pumping system and a 10kW off-grid Solar PV system for community water distribution.



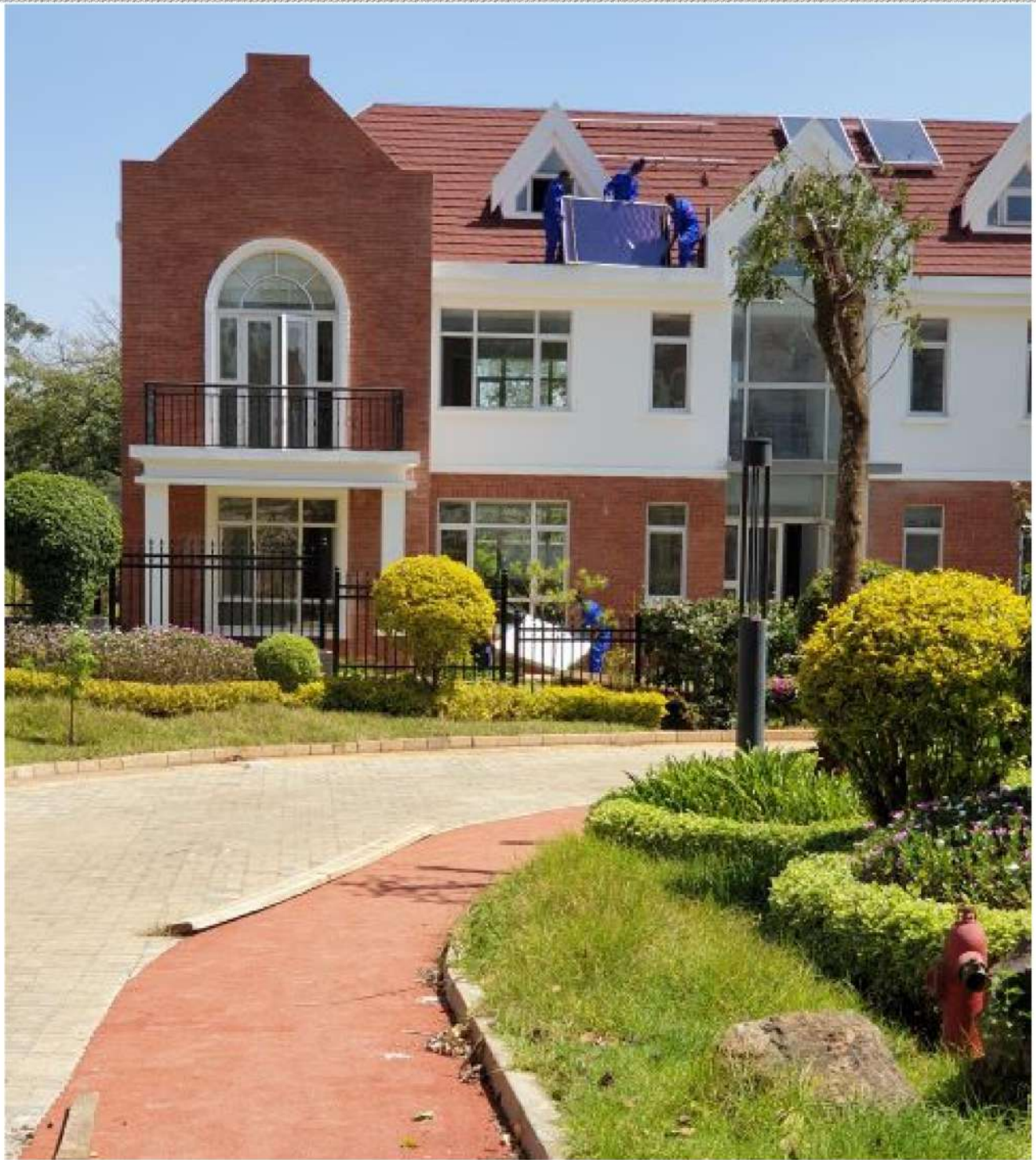
10 meters high elevated water tanks tower structural works ongoing alongside the electrical works for Solarization of 10hp Solar water pumping system in Habaswein, Wajir County, comprised of an 11kW Hybrid dual MPPT Inverter (March 2022)



3kVA Inverter, 80A MPPT Charge Controller, 4 No. 200AH Deep-cycle Energy storage batteries & 2 no. 545W Solar PV modules system commissioned successfully in South C, Nairobi (September 2022)



131kWp Hybrid Solar system commissioned successfully on 10th May 2023 at Loldia Farm in Naivasha, Nakuru County.



Implementation of 48 number of 300 litres capacity Pressurized Solar Water Heating Systems at Karen CRBC Office suites & Residential premises, opposite Hillcrest Schools in March 2022



Structural & Construction works for a 50 cubic meters stainless steel water storage tank and the water filtration system installation works ongoing at the CRBC Office suites in Karen (January 2022)



Remedial maintenance works at the Tropical power plant, Biojoule Plant in Naivasha (July 2023)



The power intake remedial works and the mains power cabling works in liaison with the KPLC technical personnel at Bitutech premises in Athi River, Nairobi (October 2023)



Borehole drilling, steel casing and pump installation works ongoing along Kangundo Road in the outskirts of Nairobi