RED Universal Consulting Energy & Sustainability Unit (RES:UNiT)
**Job Description for Electrical-Engineer Consultant Associates:**

**SECTION 1: INTRODUCTION:**

RES:UNiT: is a multi-disciplinary team of international-development professionals, economists, electrical-engineers/pv designers/solar-power technicians, and financial-analysts focused on providing energy-advisory services and technical-assistance to developers; market-actors; stakeholders; as well as public and private-sector-leaders in Nigeria’s power and renewable-energy (RE) sectors. Currently we are looking for ***electrical-engineer consultants*** (to join our team and help work on new initiatives and projects bided for as they emerge) in our eight core service-areas listed below.

*Research Analysis
Proposal-Development & Financial Advisory
Project Finance
Project Support & Results Measurement
Consumer Education & Awareness
Research & Development (R&D)
Advocacy
Girls & Youth ENeRGy Collective*

**SECTION 2: JOB DESCRIPTION:**

**Primary Duties:** Electrical Engineer consultants will work on the implementation of newly conceived ideas and initiatives (under the Research Analysis; Proposal Development & Financial Advisory; Consumer Education and Awareness; and Girls & Youth Energy Collective thematic areas) currently ongoing at RES:UNiT. Tasks include:

a: drafting and dissemination of proposals to support business development and sales generation with prospective clients; letter writing campaigns pitching and explaining the business / economic-case of why (households OR commercial enterprises) should switch and would benefit from solar-power adoption.

 b: identification of named-rural-communities in the (SW, SS, SE, & Middle-Belt regions of Nigeria) where there is a need and 'actual demand' for consumer-education as well as strategy-formulation and content-design of rural electrification campaigns.

c: content design of a weekend bi-monthly solar dialogue radio program for rural communities that are unelectrified.

d: ideation and content-design of electrical engineering courses and topics that will be taught to Girls & Youth Energy Collective during weekend STEM accelerator lab sessions.

 e: letter writing campaigns to public, private schools, principals, and hod’s of electrical engineering university programs introducing Girls & Youth Energy Collective and desire for collaborations.

f: budget-design and fundraising campaign with climate change philanthropic organizations to fund Energy Collective lab materials and lab simulations.

g: research and step by step action-plan strategy formulation of an enabling environment that expands current footprint, business enterprises, and activities of Nigeria’s local-content manufacturing of solar products, batteries, and related RE-components.

h: liaising with market players like Oando Clean Energy; Shell Nigeria; Total Plc; and CBN working on expanding local content manufacturing in Nigeria’s solar industry for consultancy assignments and collaborations.

i: identification of RE companies using biomass sources in Nigeria to support RED Universal’s business development, project support, and advisory service activities.

j: identification of RE companies using small hydro sources involved in the construction of small-hydro plants in Nigeria to support RED Universal’s business development, project support, and advisory services activities.

k: monitoring, evaluation, and results measurement of humanitarian energy access initiatives.

l: other duties as assigned.

 **Secondary Duties:** As subject-matter experts, *on a given contract or electrification project*, electrical engineers will provide back-office technical support in the form of conceptual design, engineering, and financial modelling expertise to support Solar-PV projects of clientele currently deployed, in the pipeline, or planned for future development in Nigeria. Examples of possible tasks include:

a: review of project specifications; drawings; blueprints; engineering procurement construction (EPC) plans; scheduling, contracts; permitting; and requirements for small, medium, and utility-scale solar-PV and energy storage deployment.

b: strategic and financial planning through the development of load calculations and costing models for developers; systems integrators; independent power producers; and other stakeholders involved in solar power deployment in NGR’s residential, institutional, commercial, and manufacturing sectors.

c: financially modelling of: (profit & loss/income statements; balance sheet; cash-flow statements; discounted cash-flow (DCF) analysis; revenue projections; return on investment (ROI); payback plans; loss levels; waterfalls/sub-lenders; sensitivity analysis/scenario-testing; and necessary ratio-analysis for project viability and feasibility assessment).

d: presentation of technical financial information in client-friendly manner through power-point slide, with adequate business insights for sound decision making.

**SECTION 3: QUALIFICATIONS & REQUIREMENTS:**

1 Bachelors or Masters Degree in Electrical-Engineering (Masters Preferred).
2: At least 2-10 years of prior work experience in electrical engineering, renewable energy; solar power; accounting, and or finance.

3A: Strong quantitative/analytical skills and proficiency in building complicated financial models.

3B: Proficiency with and advanced modelling skills in excel (i.e.: creating interactive excel dashboards and reader-friendly charts from computed financials for client-friendly analysis).

3C: Excellent project-management, problem-solving, critical-thinking, and analytic skills with a strong ability to understand and analyze data to drive business decisions and make recommendations.

4: Strong interpersonal and leadership skills with an ability to foster professional communication and thought-partnership with clients and stakeholders.

5: Strong ability to work independently and manage multiple projects with competing deadlines.
6: Impeccable judgement and demonstrated ability to manage confidential information.
7: Highly organized with exceptional attention to detail and follow-through.
8: Ability to work in a fast-paced environment.
9: Team-Player with positive can-do attitude and strong work ethic.

**SECTION 4: VALUE PROPOSITITION:**

1: invaluable work experience in the energy/power/RE sector for integration into resumes and c.v.’s.

2: practical experience and opportunity to apply acquired financial-modelling and valuation skills to complex electrification projects across urban and rural Nigeria.

3: proximity to; opportunity to establish connections; as well as build networks through client-facing interactions with renewable energy independent power producers (RE-IPP’s); systems integrators; micro/mini-grid developers; energy-regulators; local commercial banks, and multilateral-agencies involved in Nigeria’s power and renewable energy sectors.

4: valuable exposure in leading communication and fostering thought-partnership with power and renewable energy clients and stakeholders.

5: opportunity to solidify career-expertise as an energy-professional.

6: additional exposure to Nigeria’s development consultancy sector and other economic-development projects implemented and funded by the private-sector, federal government, and international donor institutions.

**Disclaimer: The position and vacancy is not a full-time employment but flexible consultancy work based on assigned tasks from new initiatives underway at RES:UNiT and awarded contracts bided for.** **Please be aware that working as a consultant and joining our team is *flexible*. This means consultants work based on availability for a given project/contract even if engaged in full-time work or other commitments.**