



**RURAL ELECTRIFICATION AGENCY**  
ENERGY = EMPOWERMENT = EFFICIENCY



# Energizing Education – Female STEM Students Internship Programme **Rural Electrification Agency’s Gender Mainstreaming Initiative**

MAY 2019



- **Overview of the Rural Electrification Agency (REA)**
- Gender Mainstreaming at the REA
- Energizing Education Programme (EEP) Female STEM Students Internship Programme
- EEP Female STEM Students Interns

# Overview of the Rural Electrification Agency

The Nigerian Rural Electrification Agency (REA) is the Implementing Agency of the Federal Government of Nigeria tasked with electrification of underserved and unserved communities.

## MISSION

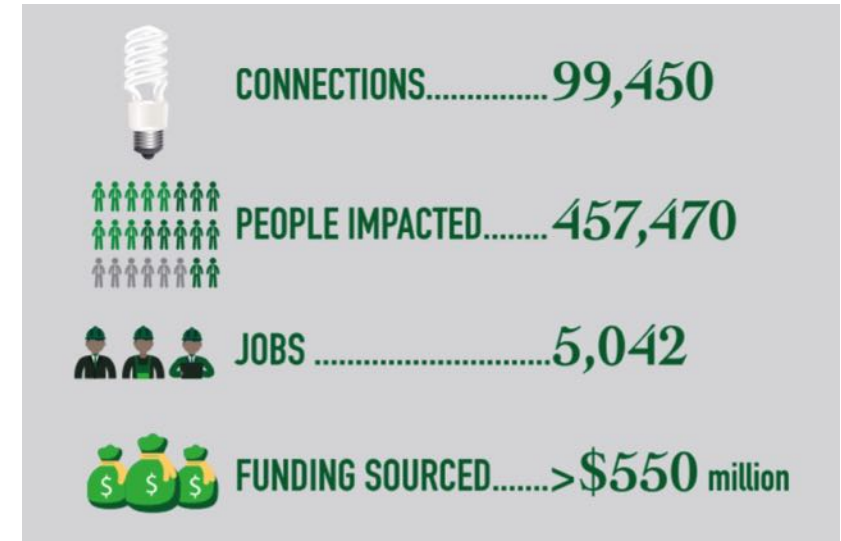
To provide access to reliable electric power supply for rural dwellers irrespective of where they live and what they do, in a way that would allow for reasonable return on investment through appropriate tariff that is economically responsive and supportive of the average rural customer.

## MANDATE

1. Promote Rural Electrification in the Country.
2. Co-ordinate Electrification Programs for unserved and underserved communities in the country.
3. Administer the Rural Electrification Fund (REF) to promote, support and provide rural electrification through Public and Private Sector Participation.

## REA Achievements

over the last 20 months



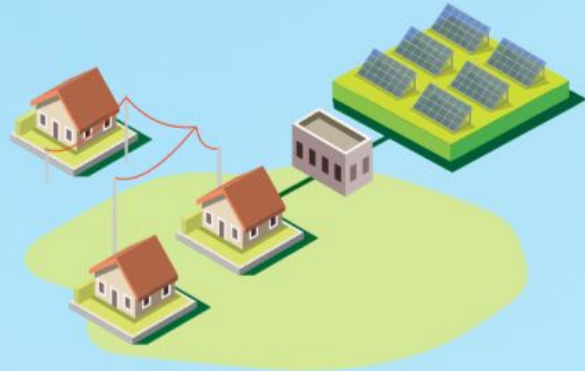
# Overview of the Rural Electrification Agency

## Current Programmes

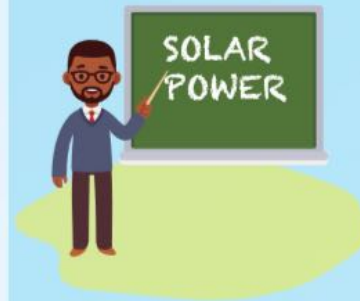
### Nigeria Electrification Project



SOLAR HOME SYSTEMS



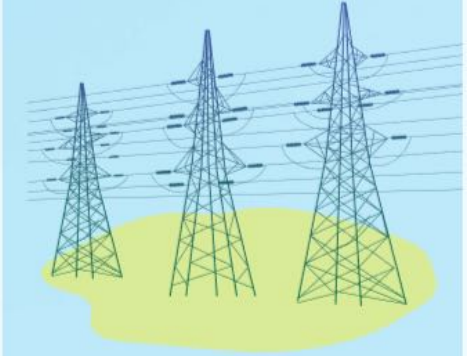
SOLAR MINI-GRIDS



ENERGIZING EDUCATION



ENERGIZING ECONOMIES



CAPITAL PROJECTS

Energy Database

Rural Electrification Fund

# Contents

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- **Gender Mainstreaming at the REA**
- Energizing Education Programme (EEP) Female STEM Students Internship Programme
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# Gender mainstreaming at the REA

The Rural Electrification Agency (REA) is committed to driving gender inclusion in the Nigerian energy sector. Gender mainstreaming is a core objective of the Agency.



Increased the number of women in senior management at the REA from 1 to 6 over the last 20 months



Under NEP, tender companies must have 30% female employment for eligibility



25 female project managers working across different REA initiatives



20 female engineering students will have internships at each of the universities – more than 700 in total



Quarterly gender focused workshops

Gender inclusion is a core objective of the REA to promote and drive female participation in electrification initiatives which include an off-grid electrification strategy to complement the national grid supply by developing a decentralized approach to power generation, distribution and metering that are economically viable, demand-driven, market-oriented and private sector focused.



# Gender mainstreaming at the REA

## Quarterly Gender Workshops

REA in collaboration with the USAID - Nigeria Power Sector Program (NPSP), organized the first power sector gender workshop themed “*Amplifying Gender in the Energy Sector*” on February 9<sup>th</sup>, 2019.

The aim of the workshop was to discuss barriers and challenges faced by women developers, investors, and leaders in the energy sector; their capacity development needs and the role of gender in the Nigerian energy sector.

Objectives of the workshop include:

- Introducing women in the Nigeria private and public sector to the work of REA and NPSP.
- Gaining an understanding of the gender challenges, barriers, and capacity development needs.
- Conduct a baseline survey that will establish the key performance indicators for the NPSP Gender Workshops.
- Informing the design of NPSP's activities.
- Guiding the implementation of REA's programmes and initiatives.
- Encouraging increased participation by women in the power sector.



*Participants at the gender workshop*



*Brainstorming session at the gender workshop*

# Contents

- Overview of the Rural Electrification Agency (REA)
- Gender Mainstreaming at the REA
- **Energizing Education Programme (EEP) Female STEM Students Internship Programme**
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# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## Programme description

- Developing off-grid power solutions for 37 Federal universities and 7 affiliated university teaching hospitals.
- The programme will provide an independent power plant, street lighting for illumination and safety, an upgrade of existing distribution networks and a world class renewables training centre at every university.
- **A critical part of the EEP is an internship programme for 20 female STEM students which they undertake during the development and construction phase of the projects.**

## Milestones and achievements

- The project is being developed in phases – the first phase is currently under construction, which covers 9 universities and 1 affiliated teaching hospital;
- The second phase will be funded by the World Bank and covers 7 universities and 2 affiliated teaching hospital will be powered by solar hybrid technologies;
- The third phase will be funded by the African Development Bank (AFDB) and covers 8 universities;
- **The first 180 female STEM students have commenced their EEP internship.**

## Impact



589,444

students will have access to uninterrupted power supply



80,401

teaching and administration staff will have access to uninterrupted power supply



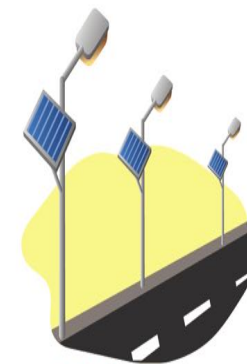
860

diesel fired generators will be decommissioned



1,435

doctors and 5,565 other medical professionals will have access to uninterrupted electricity supply at work



10,451

street lights will be installed across all the campuses



700+

female students will be trained through on-the-job training

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

Minister of Power, Works and Housing – Babatunde Raji Fashola, SAN inspection of the EEP solar plant at Alex Ekwueme Federal University, Ndufu Alike-Ikwo (FUNAI)



# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## Gender Mainstreaming Internship

REA is committed to advancing gender inclusion and diversity in the energy sector.

Under the EEP, we have developed the Science, Technology, Engineering and Mathematics (STEM) female student Internship programme, where 20 female students from each of the EEP universities will get hands-on practical experiences in designing and constructing power systems by world class contractors – METKA and Sterling and Wilson.

**The goal of the initiative is not only to help them academically, but to expose and encourage more women to pursue an interest in STEM-related careers.**

## Expected Outcomes of the Internship Programme

By the end of the internship programme, the female students are expected to gain the following:

- **An ability to apply knowledge of mathematics, science, engineering techniques, skills, and modern engineering tools to engineering practices;**
- An ability to design and conduct experiments, as well as to analyse and interpret data;
- **To make an impact on the attitudes and stereotypes of lecturers, which oftentimes prevent females from taking advantage of current opportunities in science and technology;**
- An ability to design a solar power system to meet desired needs such as economic, environmental, social, ethical, health and safety, manufacturability, and sustainability;
- **To sensitize policy makers, parents, employers and the general public about the ways in which women's full participation in science and technology can make a positive difference for current and future generations;**
- To promote a positive image of women in scientific and technical careers.
- **Knowledge of contemporary issues and ability to work with multidisciplinary teams;**
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- **An ability to communicate effectively with recognition of the need for, and an ability to engage in life-long learning.**

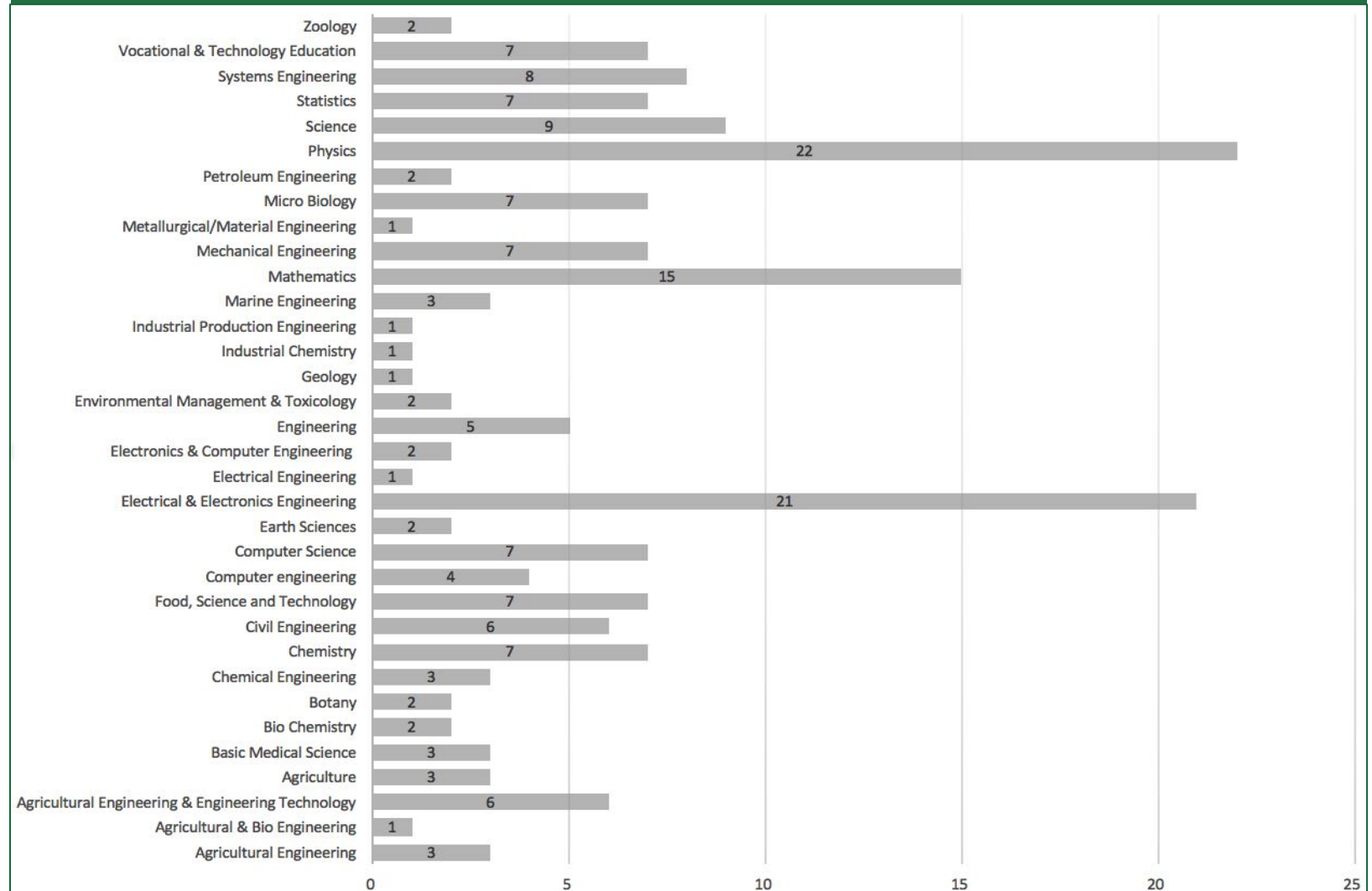
# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## Gender Mainstreaming Internship

The first 180 female STEM students are from the following universities:  
(20 students per university)

1. ALEX EKWUEME FEDERAL UNIVERSITY, NDUFU ALIKE-IKWO (FUNAI)
2. ABUBAKAR TAFEWA BALEWA UNIVERSITY BAUCHI (ATBU)
3. NNAMDI AZIKIWE UNIVERSITY AWKA (NAU)
4. USMAN DANFODIYO UNIVERSITY SOKOTO (UDUS)
5. UNIVERSITY OF LAGOS (UNILAG)
6. OBAFEMI AWOLOWO UNIVERSITY (OAU)
7. BAYERO UNIVERSITY KANO (BUK)
8. UNIVERSITY OF AGRICULTURE MAKURDI (FUAM)
9. FEDERAL UNIVERSITY OF PETROLEUM RESOURCES EFFURUN(FUPRE)

The 180 Female STEM students are studying a range of different courses shown below



# Contents

- Overview of the Rural Electrification Agency (REA)
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# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## ALEX EKWUEME FEDERAL UNIVERSITY, NDUFU ALIKE-IKWO (FUNAI) – EEP FEMALE STEM INTERNS



Training on PCC of BBR foundation works



Training on PC Transformers

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## ABUBAKAR TAFEWA BALEWA UNIVERSITY BAUCHI (ATBU)– EEP FEMALE STEM INTERNS



Training on casting foundations



Training on equipment foundations

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## NNAMDI AZIKIWE UNIVERSITY AWKA (NAU) – EEP FEMALE STEM INTERNS



*Interactive class session on PV panel mounting structures*



*Training on assessing the PV panel mounting structures*



# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## USMAN DANFODIYO UNIVERSITY SOKOTO (UDUS)– EEP FEMALE STEM INTERNS



*Training on components of solar panel*



*Interactive class session on project development stages for a solar hybrid plant*

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## UNIVERSITY OF LAGOS (UNILAG) – EEP FEMALE STEM INTERNS



*Training on excavation work for street light plinths*



*Training on street light Installations*

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## OBAFEMI AWOLOWO UNIVERSITY (OAU)– EEP FEMALE STEM INTERNS



Training on retaining wall base



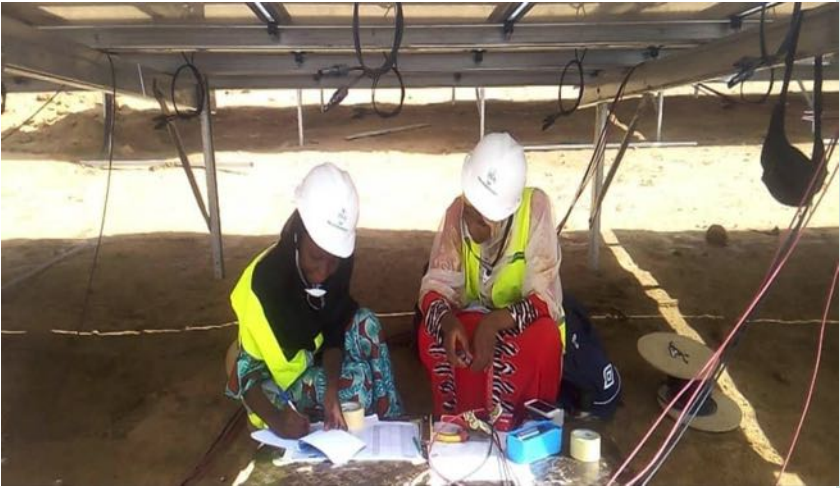
Training on casting foundations

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## BAYERO UNIVERSITY KANO (BUK)– EEP FEMALE STEM INTERNS



*Training on DC cable tagging for the PV strings*



*Training on the processes of installation of DC string cables*

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## UNIVERSITY OF AGRICULTURE MAKURDI (FUAM)– EEP FEMALE STEM INTERNS



*Training on backfilling of the completed equipment foundations*



*Training on the installation of transformer foundation plinth beam formwork*

# Energizing Education Programme (EEP) - Female STEM Students Internship Programme

## FEDERAL UNIVERSITY OF PETROLEUM RESOURCES EFFURUN(FUPRE)– EEP FEMALE STEM INTERNS



*Training on solar panel installation*



*Training on solar power components (substations)*

For further information, please contact:

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