



# ENERGIZING EDUCATION PROGRAMME

Alex Ekwueme Federal University, Ndufu Alike-Ikwo (FUNAI)

JULY 2019



RURAL ELECTRIFICATION AGENCY

ENERGY • EMPOWERMENT • EFFICIENCY

## ENERGIZING EDUCATION PROGRAMME (EEP)

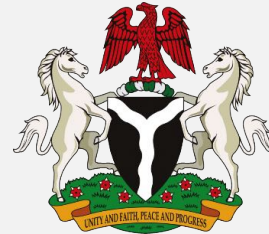
This Federal Government of Nigeria initiative is developing off-grid, dedicated and independent power plants, as well as rehabilitating existing distribution infrastructure, to supply clean and reliable power to 37 federal universities and 7 affiliated university teaching hospitals. In addition, it will provide street lighting for illumination and safety, as well as a world class renewables training centre at each of the EEP beneficiary institutions. The programme is being implemented by the Rural Electrification Agency.

The project is being developed in phases – the first phase is currently under construction, which covers 9 universities and 1 affiliated teaching hospital. Under Phase 1, seven of nine universities will be powered with electricity from solar hybrid technologies, the other two universities will receive electricity from gas fired power plants. The first 180 female STEM students in Phase 1 have commenced their EEP internship.

This report focuses on the completed solar hybrid project at Alex Ekwueme Federal University, Ndufu Alike-Ikwo (FUNAI).

### PHASE 1

#### FUNDING



9

Universities

1

Teaching  
Hospitals

### PHASE 2

#### FUNDING



THE WORLD BANK

7

Universities

2

Teaching  
Hospitals

### PHASE 3

#### FUNDING



AFRICAN DEVELOPMENT BANK GROUP

8

Universities

The second phase of EEP will be funded by the World Bank and covers 7 universities and 2 affiliated teaching hospital. The third phase will be funded by the African Development Bank (AFDB) and covers 8 universities.

## EEP IMPACT



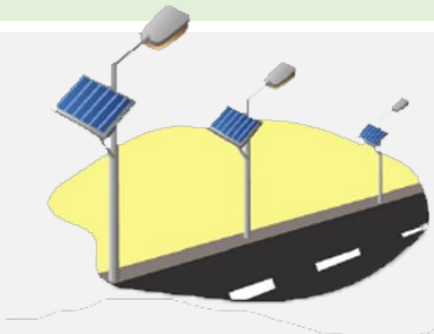
**589,444**

students will have access to uninterrupted power supply



**860**

diesel fired generators will be decommissioned



**10,451**

street lights will be installed across all the campuses



**80,401**

teaching and administration staff will have access to uninterrupted power supply



**1,435**

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







**700+**

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







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POPULATION & BUILDINGS		EXISTING GENERATORS & CARBON DIOXIDE CO <sup>2</sup> SAVINGS	SOLAR INFRASTRUCTURE	
	Students	 Capacity of Petrol and Diesel Generators (to be removed when EEP is fully operational)  1.54 <sub>MW</sub>	Total Capacity of Battery Storage	Total Capacity of Backup Generators
	7,700		8.4 <sub>MWh</sub>	1.0 <sub>MW</sub>
	Staff	 Annual Carbon Dioxide CO <sup>2</sup> Savings  8,139,208 <sub>lbs</sub>	Solar Panels Installed	Total Capacity of Solar Panels
	1,819		3,500	1.155 <sub>MWp</sub>
Hostels	2		Total Installed Capacity of Solar Hybrid Power Plant	
Academic Buildings	68		2.8 <sub>MW</sub>	

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STREET LIGHTING & DISTRIBUTION INFRASTRUCTURE			
	Street Lights Installed  <b>287</b>		Transformers  <b>2</b>
	Street Lighting Installed  <b>7.5KM</b>		Distribution Panels  <b>4</b>
	Capacity of Transformers  <b>0.64MW</b>		Length of Distribution Cables  <b>3KM</b>

RENEWABLE TRAINING CENTRE & TRAINING COURSES	
<b>1</b> World Class Renewable Training Centre	Generation, Transmission and Distribution Training
	Solar Energy Training
<b>20</b> Female STEM Students Trained	Metering Training

JOB CREATION	Project Managers	Construction Managers	Power Systems Engineers	Mechanical Engineers	Civil Engineers	Renewable Experts	Designers	Electrical Engineers	Bricklayers	Laborers	Jobs Created
	8	6	4	4	9	6	3	8	10	50	108



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## SOLAR HYBRID PLANT





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## STREET LIGHTING

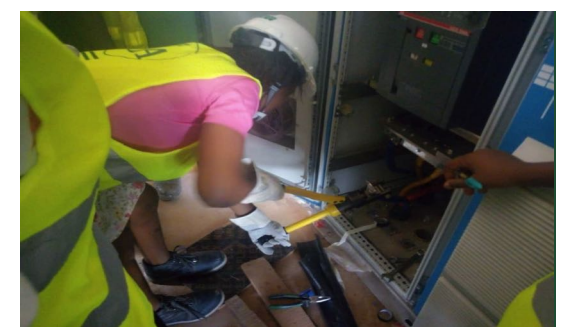




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**STEM STUDENTS**







# RURAL ELECTRIFICATION AGENCY

ENERGY = EMPOWERMENT = EFFICIENCY

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