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GLOW INITIATIVE FOR ECONOMIC EMPOWERMENT

P R E S E N T S



Solar Panel Installations Skills

TRAINING PROGRAM

FOR 60 YOUTHS IN UMUAWULU COMMUNITY

PROJECT REPORT

Project Background

Investment into the Nigerian solar power sector has recently increased. Globally, investments into the solar power sector hit a peak of 330BN dollars and much of the attention has been in Africa with 600M people who have no access to electricity. In Nigeria, there are 93 Million people without access. In addition to this, climate change impacts has been ravaging our nation with extreme drought and desertification observed in the north and increased rainfall leading to flooding noticed in the south. Solar power which is considered clean electricity can play a role for both the problem of electricity and to combat climate change. Therefore a new opportunity has emerged to train and mentor new solar entrepreneurs and engineers who will build on these opportunities solving electricity problems and making an income.

Our Solution

Training young Nigerians on skills in the solar energy value chain -such as solar panel designers, installation engineers, assemblage assistants, project managers, repair / maintenance professionals, marketing and sales agents goes a long way to increase access to electricity, combat climate change and advance sustainability in Nigeria as these persons go on to work as competent workforce for solar companies or create their own businesses promoting rural electrification. The Solar Skills Empowerment Program will train 60 young Nigerians on the Design and Installation of Solar Panels to provide electricity. This training will prepare them as solar entrepreneurs ready to tackle electricity

and climate challenges in Nigeria. Their skill will additionally enable them be employed in a solar company.

Project Goal

To solve Nigeria's electricity challenges and environmental problems resulting from the use of unsustainable energy.

Project Objective

- To train 60 young people on Solar PV design, Installation and Entrepreneurship.

ACTIVITIES

1. Intensive one week training and hands-on practical (on Solar PV design, Installation and Entrepreneurship) for 60 young people from Umuawulu community in Anambra State
2. Hands on practical Installation of 2.5kva of solar system.

Details of Project Activities

a. Workshop Methodology

The Solar Skills Empowerment Program featured well-structured courses on solar entrepreneurship and solar PV systems. The trainings were facilitated by seasoned solar technologists and solar energy experts. The training was both theoretical and practical.

b. Overview of training

The “Solar Skills Training Program” exposed participants to basic concept of solar entrepreneurship and solar photovoltaic systems including solar system operation, designs, and installation. The training also covered the fundamentals of PV, such as how voltage, current, power and energy interrelate.

Participants were exposed to the various components of solar installations such as inverters, solar panels, charge controllers, batteries, etc. They were also taught calculation of energy demand (energy audit and energy efficiency implementation techniques).

c. Learning Outcomes

At the end of the training, participants showed a good understanding of

- i.** basic concepts the basic concepts of solar entrepreneurship and solar PV systems
- ii.** Solar systems design and size solar photovoltaic power systems.
- iii.** functions of different components of PV systems
- iv.** Features of solar PV system configurations and applications.

- v. the relationship between: power, voltage, current, electric charge and energy
- vi. energy audits
- vii. Installation of solar panels on rooftop using a roof model
- viii. solar inverter integration with existing house wiring using an electric circuit simulation board

d. Participation/Involvement

60 young people drawn from various villages in Umuawulu community participated in the training. The participants at the training demonstrated a good level of commitment by turning up early for trainings, paying keen attention to lectures and diligently performing assigned tasks.

e. Conclusion

The training program was impactful as evaluation mechanisms suggested that participants demonstrated a good understanding and showed a high level of competency around the basic concepts of the training. Although most participants were new to solar technology, most participants show interest to venture into the solar industry and pledged to be frontiers in the electrification of their communities and advocacy for clean energy. This supports the goal of this project to solve Nigeria's electricity challenges and environmental problems resulting from the use of unsustainable energy.

PICTORIAL EXCERPTS



The Instructor explains a point while trainees watch with keen attention



Trainees installing a solar panel at a roof top

PICTORIAL EXCERPTS



Trainees learn how to install a charge controller



Some trainees pose for photographs

PICTORIAL EXCERPTS



The instructor explains an inverter connection



The project lead poses for photograph with some trainees

PICTORIAL EXCERPTS



Trainees learn how to assemble a solar panel rack



A trainee poses with a solar panel

Access Bank Support

1. Access Bank support covered expert designs for our IECs and publicity materials.
2. The support enabled the purchase of all the materials used for the training program.
3. Access Bank support covered facilitation fees for resource persons.

About Glow Initiative for Economic Empowerment and Climate Smart Nigeria

Glow Initiative for Economic Empowerment is a non-governmental organization set up to harness the economic potentials of communities by tackling problems like unemployment, poor electricity access and climate change through education and investments in renewable energy. We are focused on reducing unemployment and creating a sustainable society by supporting women and young people to become renewable energy entrepreneurs by helping them acquire solar technology, business and financial management skills to create and deploy solar solutions for individuals and companies in rural and urban areas. Our goal is to birth 10,000 renewable energy entrepreneurs in the next 5 years. Climate Smart Nigeria is the arm Of Glow Initiative which is set up to combat environmental problems like Climate change to improve the nation's power sector by spreading the awareness of Climate Change to curb climate illiteracy and promoting the intervention of renewable energy. Through CSN, we use the tool of education to curb climate illiteracy. Our goal is to boost the

economic development of Nigeria and attain a Climate Smart nation come 2026 through pioneering investments in renewable energy, Climate education and agriculture.

IEC MATERIALS



GLOW INITIATIVE FOR
ECONOMIC EMPOWERMENT
PRESENTS

Solar Up Nigeria (SUN)



UMUAWULU COMMUNITY, AWKA SOUTH LGA, ANAMBRA STATE.

- ◆ Solar for School Community Project (Free Solar System Installation at Community Secondary School Umuawulu).
- ◆ Solar Panel Skills Installation Training Program For Select Youths of Umuawulu Community.



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Solar Panel Installation Skills Training Program For Youths



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