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Title of the project: ***SAFE BUSURA VILLAGE FROM DARKNESS WITH SOLAR POWER***

2. PROJECT TARGETED POPULATION/ PROBLEM STATEMENT

Busura is a small rural village of not more than 5,000 inhabitants, located 15 kilometers from Brikama west coast region of the Gambia. The village is remote and very isolated. It was hard to make a living. This isolated rural village the chance of the grid reaching them is unlikely, however, at least in the near future. The lack of electricity inhibits people's ability to thrive. It leaves them dependent on solid fuel wood, animal dung, charcoal, candles, kerosene oil lamp for lighting and cooking, which harmed children`s health and could not study full-time. In the Gambia, access to electricity is as low as 5% per cent in rural Regions (compared with 65 per cent in urban areas).

Access to electricity outside greater Banjul area is very low and still largely inadequate, inefficient and extremely unreliable which has negative impact of so-economic development and life and livelihood of the rural communities of the

Gambia these are the reason of excessively dependence on firewood and kerosene oil lamp for cooking and lightings. without access to electricity women and girls in this rural community of Busura spend most of their day performing basic subsistence tasks, including time-consuming and physically draining tasks of collecting biomass fuels, which constrains them from accessing decent wage employment, educational opportunities and livelihood enhancing options, as well as limits their options for social and political interaction outside the household. When the supply of fuel wood is affected by drought women and children in this community walk up to 3 kilometers and spent many hours gathering fuel woods for lightings and cooking which they are exposed to health effects and high level of insecurity.

Almost a third of hospital burn patients have been injured by kerosene fuel exploding while using kerosene lamps in Busura Village. Small local businesses have few options to expand their operations through electrically powered technology. Children lag behind in school because once the sun goes down; they lack sufficient light for studying.
However, the village has one primary school with six classroom block. With no electricity available, significant number of children and other vulnerable women are still missing out on quality education, better healthcare, food and water security and broader economic opportunities and general well-being. Teachers in other-hand usually have to teach in darkness and school children are unable to study or complete their home work at night.
Health sector is also hugely impeded by lack of electricity in this local community.
The Clinic is unable to use technologies such as water filtering systems, refrigerator to store vaccination and television to improve health knowledge. In addition, Night time birth becomes difficult and higher increase in maternity and child mortality rate in the village and also difficult to retained medical staff due to lack of electricity.
However, Women and girls had to get up at 4am to grind maize, wheat and corn by hand for bread fast because they don't have access to electricity.

The proposed project would provide roof tops solar home system to this local community as the most cost effective ways of bring electricity to this remote local vulnerable community in short-term and medium term. Off-grid renewable energy is a catalyst to transform lives, improving health and other sustainable development goals. Energy is at the heart of development. It highlights the linkages and the role of off-grid renewable electricity as an enabler for SDG 3 (healthy lives), SDG 4 (equitable and inclusive education), SDG 5 (gender equality), SDG 8 (economic growth, employment and decent work) and SDG 13 (tackling climate change). Without energy, this local community lives in darkness, essential services such as clinics and schools will barely function at night, and businesses operate under crippling constraints.

The proposed project aims to contribute to the country's development objectives while enhancing local community resilience to climate change impact and avoiding greenhouse gas emissions from traditional sources that would otherwise be generated from fossil fuels.
The project aims to promote renewable energy by providing rooftop solar home system lightings to the primary school six classrooms, teachers' room, and multi-purpose community building, rice and corn mill and community clinic with solar power.

The project would also allow the school to introduce computers, improving attendance by students and the quality of their learning, increasing study hours and improving literacy rates and performance in national exams. With electricity, proposed project would allow villagers to set up a small agro-processing mill that processes rice, maize and other the local staple. They could earn additional income—and feel proud to serve their neighbors. With the project, days of spending hours walking to obtain oil have passed. The solar power would change their lives and livelihoods." Among other improvements, local women can have more time to earn incomes, such as through raising poultry and goats.

The proposed project would provide significant impact of electricity access on women-owned businesses and incomes, including helping them move from extreme poverty to near middle class status, while allowing them to stay in their local community. Number of women entrepreneurs would increase and their incomes would also increase by up to 10 times that of pre-electricity earnings. The consistent source of renewable energy provided by solar power would help the local vulnerable community to withstand the negative impacts of climate change, including extreme weather events, droughts, and other shocks that affect access to the traditional power supply.

The establishment of each component of the proposed project would involves training the community on awareness how to use and maintain it, building new skills in planning and managing local resources. This demonstration of community capabilities in turn would persuade national policy makers of the feasibility and value of rural energy projects, and as a result would increase government financial support in promotion of renewable energy in rural communities. However, project Activities targeting women's participation and training and awareness as part of our capacity development and making sure the project is gender-sensitive, empowerment and advancement of women equal participation in economic activities and the benefits are shared among men and women equally.

4. MAIN STAKEHOLDERS INVOLVE IN THE IMPLEMENTATION

Network for Climate Action will be the main Implementing entity. The project implementation arrangements count on the combined capacity of public, private sector and affected local community involving women, girls and vulnerable people assist in implementation, planning and activities.

The three main entities involved in the project baseline implementation of the proposed project are affected community members, Network for Climate Action organization (NcA) and Wagner Solar developer. The Organization will be the lead agency responsible for the implementation, in close, direct and regular coordination with the village development committee (VDC), and local effected community members including women, girls and vulnerable people, religious leaders, Village elders.

Wagner solar developer will have a leading role in the implementation, construction, installations and capacity development activities on mainstreaming. The organization will support project implementation by administering the grant facility and recruiting and contracting project personnel and implementation, support and consultant services, including subcontracting.

The project manager will be responsible for the overall oversight of the framework implementation and will make a progress report to the donors involve. In addition, the project is intelligently designed and carefully planned with involvement of local input and cooperation with assessing local needs, we adapt project to meet those needs, and also include affected communities in project design, monitoring, assessment, and evaluation of the project.

Proposed project would ensure capacity development, knowledge transfer and ownership to the local community/ stakeholders. This affected local community members would be train on maintenance and management of solar panel equipments, ensure proper management and sustainable use of equipments, adopting smart power usage behavior, general maintenance, services, troubleshooting.

The capacity building activities will equally prioritize men, women and other vulnerable people as a prime target audience. It is in project 's interest to reach women who will be the end users of the proposed solar solutions. In relation, with the transition to renewable energy like solar, has been discussed at the village meeting in Busura Community.

The proposed activities are in line with the village environmental requirements and it has been fully supported by the local inhabitants. The proposed project devise specific stakeholder engagement plan which will include grievance redress mechanism for the purpose of ensuring adequate inclusion of all stakeholders issues.

5. BROADER AND SPECIFIC OBJECTIVE OF THE PROJECT:

1 To ensure access to affordable, reliable, sustainable and modern energy to Busura community

2 To empower local community to involve in income generating activities, gain access to better health care and education, enhance water and food security, and improve general well-being and livelihood.

3. To create a vibrant market, providing jobs to the local population

To De-carbonization of household energy sector, lowering air pollution from discontinuation of candles, kerosene oil lamp and diesel generator.

4. Enhancing energy access to healthcare and educational services, improving rural economy and livelihood and generating employment opportunities.

3 To improve healthcare, education, job creation, food production and water availability.

4 Protecting and conservation of natural forest and its ecosystem services, and enhance other social and environmental benefits.

5 To boost women entrepreneurship, increase income and improve rural livelihoods.

6. MAIN ACTIVITIES

The implementation of the proposed project through following components

Component. 1. The pipeline proposed projects will be selected through a competitive tendering process. The organization will apply its credit evaluation, due diligence and approval procedures in appraising potential clients for this investment.

Component. 2a. Installation of solar home system with the capacity of 1000W to over 10000W on rooftops solar home system in school, health clinic for power need, community multipurpose building, house for teachers, rice and corn mill and a poultry farm.

Component. 2B. installation of electrical infrastructure and energy storage and conduit and cabling to connect the inverter.

Component. 3. Trainings that Empowers Stakeholders' Engagement

This will support the education and awareness The target audience of such training activities include, women, men, school administrator and affected people who will benefit from the proposed project etc.

The activities here are proposed to address the following:

A. Initial reservation in the adoption of a new technology for communities and households. B. Management and maintenance of equipments, adopting smart power usage behavior and trouble shooting. C. Importance and advantages of conserving energy; D. Environmental and social awareness for solar technologies, such as recycling/ proper disposal of batteries. D. E & S impacts, Vulnerability aspects

Component .4a. The capacity building and awareness creation activities will equally prioritize men and women as a prime target audience.

Component .4b. Capacity development for community facilitators and field-level staff will also be implemented as they are organs that will reach out to the local community.

7. PLAN OUTPUT

Economic, Social, Health, Environmental and policy output/ co-benefits

Economic co-benefits:

• Entrepreneurial job creation to the local population and improve community livelihoods.

• Long term Green job creation in the green economy sectors linked to sustainable energy and Gambia`s climate adaptation action.

- Economic empowerment and growth on women-owned businesses and incomes
- Boosting small local business and reducing drudgery on women and girls.

• Food security through climate resilient agriculture less dependent on rains through irrigated crops and refrigeration for better preservation of perishables

Social co-benefits:

• Focus on women and girl's empowerment and entrepreneurship in the productive use of energy.

• Improvements in health and safety from elimination of smoke and soot from kerosene lamps and candles for lighting and fire hazard from naked flames

• Better access to education through lighting for homework and better access to web-based materials at school

• Water pumps for accessing underground water leading to higher education rate for girls

• Increase teacher's retention rate and improve learning friendly- environment in the village.

Health Benefits.

- Improve lighting for village clinic for night time births and operations, and to reduce mortality rate.
- To improve power supply for clinic to use technologies such as water filtering systems, refrigerator to store vaccination and television to improve health knowledge.

Environmental co-benefits

- Increased indoor air quality from use of LED lighting
- Reduction of soil and water pollution from unsafe disposal or elimination of batteries disposed Reduction in the use of traditional biomass (including wood), which accounts for 84% of all primary energy consumed in the Gambia.
- lowering indoor air pollution from discontinues of kerosene oil lamp, firewood and diesel generator, Reducing GHG emission, and tackling climate change.

Policy output

- Build a strong business and supportive enabling environment to improve confidence of investment in promoting renewable energy.
- Develop an 'energy access roadmap' which sets clear national targets to achieve access to modern, sustainable and affordable energy by 2022, or earlier.

8. MAJOR ACHIEVEMENT OF THE ORGANISATION.

Network for climate action Organization is a non-profit public organization registered with the Ministry of Justice of the Republic of the Gambia, our mission is Working towards building low carbon climate resilient sustainable development.

Network for Climate Action has registered some significant achievements which significantly created greater impacted on the lives of a considerable number of people in local communities. The organization has implemented a number of projects including: Energy conservation and the promotion of efficient renewable energy has been done.

1) improve cook stove project: « the organization has implemented Improve clean cooking stoves project by reduce Climate emission from household energy sector in Farato village» ; 2) 2018 the QIAO Plan project: «Construction of solar panels in Busura Village to Facilitate energy access»

3) Country wide climate change awareness project: «in URR and LRR in collaboration with grass root organizations>> Capacity building has been in our program implementation.

The capacity limitation of Communities towards environment was recognized very early our environmental education and awareness program in that area in a bid to improve the situation.

9.OTHER DONOR AGENCIES INVOLVE/ CO-FINANACING OF THE PROJECT:

The project co-financing will be provided by

1. Vision Development Foundation, 2. Global Giving Crowdfunding campaign. The project is also supported by the Village Development committee, School teachers and cash in hand D50,000

10. TIME TABLE OF THE PROJECT ACTIVIVTES/ WORK PLAN

	YEAR 2019								YEAR 2020				
MONTHS	**may**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**J**	**F**	**M**	**A**	**M**
Tender and Bidding													
Selection of bidders													
Signing contract													
Training of stakeholder engagement													
Construction /Installation													
Electrical work/install solar cookers													
Capacity building for field staffs													
Capacity building for local beneficiaries													

11. BUDGET

Total project cost: **D1,950,000** Amount requested

OPERATING EXPENSES	ITEMS	OTY	COST	TOTAL COST
			D	D
PERSONELL EXPENSES	(a)Staff salaries (b)Capacity building/ trainings		D200,000 D150,000	D 350,000
INSTALLATION & EQUIPMENT	(a)BENQ Solar modules (b)Flat Roof Mounting (c) Charge CNT (d)Power inventories victon (e)BAT-22-A& BAT-Term (f)BATT Rack (g)RJ45 UTB (h)AC/ DC Cables (f)Earth Rod (G)NH Fuse Switch (h)1x fuse Insert 160A (I)Victor VE Direct (j) Transportation & Installation (k) Solar cookers	30 10 5 5 40 5 5 60 10 5 15 5 1 5	D 340,000 D 95,000 D185,000 D 265,000 D 454,000 D 18,000 D 3,000 D 114,500 D 17,500 D 27,500 D 6,000 D 11,500 D 35,000 D30,000	D1,600,000
Total cost			TOATAL COST	D1.950,000

12. MECHANISM FOR ASSESSING PERFORMANCE

A coherent monitoring and evaluation plan will be drawn up as part of the review process of the implementation of proposed project, using the targeted local community that have already been developed or benefited, and using set of indicators.

- Rooftop solar home system install in households achieving energy access estimated 200 direct and indirect beneficiaries, Improving 100 local livelihoods and increase 100% household women incomes. 95% of entrepreneurs making less than D50 per day have no electricity, while 100% of entrepreneurs making D500 or more per day have access to electricity.
- Installation of solar power in primary school more than 2000 students and school teachers will benefit. improvement of quality education in the village and their performance in National exams. 1000 student boys/girls will have enroll in secondary school
- Rooftop Solar power in village clinic 1000 people will benefit and improve nighttime birth 100% reduction in maternity and child mortality death rate. 1000 people with improve health and livelihoods (disaggregated by number of women/men and girls/boys).
- Conduct studies, supported by field surveys, to understand the impact renewable

energy jobs have on poverty reduction and changes in livelihoods.

- Installation of 1 solar power in village community building, 1 rice & corn mill. the proposed project aim avoiding 1000 tons of CO2 emissions annually. avoiding over 1500tons CO2eq per year of emissions.

13. FINANCIAL FISIBILTY STUDY:

The organization has begun encouraging a process of scaling up and diversifying the types of technology being deployed. Power sources capable of greater output can serve more people, lower maintenance costs and provide enough juice for local enterprises to expand their operations and become more productive. Using solar power would help local community to save money substitute kerosene with solar lamps, using the savings for school fees, farming inputs and investment in businesses.

Project beneficiaries would save quite a lot; for instance, on the amount of money they would have been spending on diesel power generation, kerosene oil and candle could be re-invest in other sectors.

Payment by end-users will be based on a prepaid system with mobile money ensure sustainability. It is estimates a 100 percent return on investment within two to five years, when this local community with unreliable energy sources install solar systems.

With electricity, the proposed project would allow villagers to set up a small agro-processing mill that processes rice, corn and other the local staple. They could earn additional income. The power would change their lives and livelihoods." Among other improvements, local women can have more time to earn incomes, such as through raising poultry and goats.

The project will have significant impact of electricity access on women-owned businesses and incomes, number of women entrepreneurs would increase by half once electricity became accessible and incomes of women entrepreneurs would increase by up to 10 times that of pre-electricity earnings.

REPLICABITLITY AND LESSON LEARN

The proposed project was developed based on an ambitious vision that required thoughtful planning and engagement with each of its local stakeholders. The proposed project will have greater and significant impacts, particularly on National development plans and other SDGs, and on the local community that benefit and project surroundings. Many of the lessons learn from this proposed project can be broadly applied to other rural communities of the Gambia. We emphasize the importance of planning and engaging with local communities/ stakeholders early in the process.

Applying these lessons for peer to peer learning is fundamental to accelerating the implementation and impact of project in other region. This successful development of such a project to promote renewable source of energy to poor rural communities can be replicated in other regions in the Gambia and beyond, especially those possesses sun radiation throughout the year.

The project emissions reduction will directly contribute to attain the Gambia's commitment outlined in its Nationally Determined Contribution (NDC) to reduce emissions by 70 Mt CO2eq/year by 2030 as compared to the BAU (430 Mt CO2eq). Its replication to other towns in the Gambia will provide further contribution to the NDC emissions reduction objectives of the country.

REMARKS

Socioeconomic development while reducing climate emission is the primary objective of expanding energy access. promoting renewable energy like solar is crucial for addressing development challenges – poverty reduction, gender equality, poor health and educational services and absence of food and water security and among others. And it's the most ingredients to sustainable development goals (SDGs). Energy is at the heart of development. Without energy, these communities live in darkness, essential services such as clinics and schools can barely function, and businesses operate under crippling constraints. Switching from kerosene to solar lamps reduces the toxic and soot-like black carbon emissions that have a large impact on climate change and air pollution.

Energy is not only a global goal in its own right but is at the heart of the sustainable development agenda to 2030, and is essential for reducing poverty, improving health and ensuring environmental sustainability. Energy access and consequent access to technologies can free up women's time, improve the productivity of their work and allow them to engage in income-generating activities.

Energy access provides opportunities for women entrepreneurs to make an income and enhance their social status by creating and disseminating sustainable energy solutions.

Recognize women as independent users of energy solutions and enable them to benefit from energy access, taking into consideration the challenges of land ownership/rights, access to credit, and social constraints.