

Solar & Wind for Productive Use

Concept Note

Solar Water Pumping-continued

- Also, the project has potential to develop human capacity (skills, etc) for the operation and maintenance of the system; improve the economic livelihood, improve health care delivery, create jobs, reduce time wastage in traveling to fetch water from often polluted streams, promote dry-season farming and increase crop yield.
- Two demonstrations are planned to show-case this project. One of the demonstrations will take place at The Energy Center, KNUST, and the other at an identified agro-based community in Ashanti region for irrigation purpose.

Solar PV-Based Mini Grid Electrification- continued

- The project has potential to develop human capacity (skills, etc) for the management of mini-grid electrical systems; improve the economic livelihood, improve health care delivery, create jobs, improve general human livelihood, improved communication/public announcement centers and business opportunities.
- One demonstration is planned to show-case this project at an isolated off-grid community in collaboration with Energy Commission (site selection).

Solar Water Pumping

- This project is to develop solar electric (PV) water pumping systems in identified locations in off-grid communities in Ghana.
- Specifically, solar water pumping systems will be constructed for off-grid agro-based communities for irrigation purposes; as well as for off-grid communities for domestic use and commercial applications (pito-brewing, food processing, etc). In addition, solar water pumping (mechanization of water pumping) will be constructed for remote off-grid hospitals/clinics. This project has high potential for scale-up and can easily be replicated in other communities.

Solar PV-Based Mini Grid Electrification

- This project is to develop solar electric (PV) networks in identified locations in island off-grid communities in Ghana for lighting applications (such as homes, health centers, community centers, schools); phone-charging; and powering computers in schools. This project has high potential for scale-up and contributes to rural electrification efforts by the government.

Solar refrigerator/Freezer

- This project is to deploy solar electric (PV) refrigeration systems for refrigeration/freezing of drinks, fish, meat, and perishable foodstuffs. In addition, the system will provide opportunity for vaccine storage at off-grid health centers. This project has high potential for scale-up and can easily be replicated in other communities.
- Also, the project has potential to develop human capacity (skills, etc) for the operation and maintenance of the system; improve the economic livelihood, improve health care delivery, create jobs.
- Two demonstrations are planned to show-case this project. One of the demonstrations will take place at The Energy Center, KNUST, and the other at an identified off-grid community in Ashanti region for refrigeration of drinks/fish.

Solar crop drying

- This project is to deploy solar crop dryer systems for controlled drying of crops in agro-based communities. This project has high potential for scale-up and can easily be replicated in other communities.
- Also, the project has potential to develop human capacity (skills, etc) for the operation and maintenance of the system; improve the economic livelihood, reduce post-harvest losses, create jobs.
- Two demonstrations are planned to show-case this project. One of the demonstrations will take place in the Afram Plains and a community in Brong Ahafo Region.

Solar water heating

- This project is to deploy solar water heating systems for warm/hot water supply for use at health centers in off-grid communities for clean purpose. This project has high potential for scale-up and can easily be replicated in other communities.
- A demonstration is planned to show-case this project at a health center at Kokooso in Brong-Ahafo region

Wind for water pumping

- Location: Mankwase at Central region