



Solar Water Pump Use by cocoa farmers: Initial observations

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Outline

- ❑ Introduction to PEG Africa
- ❑ Product Portfolio
- ❑ Water Business Model
- ❑ Initial Observations
- ❑ Conclusion



A young boy with short dark hair, wearing a striped shirt, is smiling and looking towards the camera. He is standing in front of a wooden post, possibly part of a structure. The background is dark and appears to be an outdoor setting at night or in low light.

30M+

Households do not have access to electricity in West Africa

30%

Off-grid household income spent on kerosene


2/3


Africans do not have access to bank accounts or funding

PEG Africa is the leading off-grid asset finance company in West Africa

- Taking advantage of advanced domestic solar technology, PEG offers installment financing to enable customers to have access to clean, reliable and affordable solar energy.
- Accessing our solar products help customers to:
 - build credit for additional products and services over time.
 - develop healthy families
 - practice all year round farming and
 - access clean light for work and study at night

 *Ghana, Mali, Cote d'Ivoire,
Senegal*

 *100,000+ across markets*

 *1,000+ across locations*

 *-Ashden Award for Innovative
financing (UK)*
-Energy Access Champion for WA
-Inclusive Fintech 50



Product Portfolio



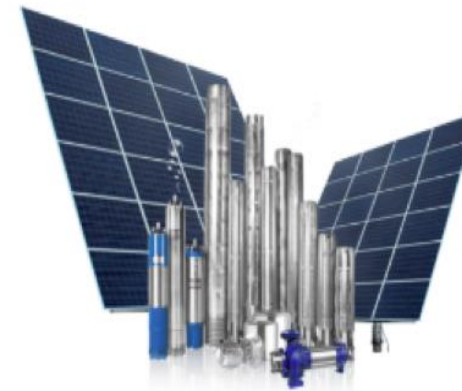
HOME:

Solar home systems with TV, fan, bulbs, radio, torch, phone charger.



POWER:

Larger solar systems for edge-of-grid or on-grid backup solutions



WATER:

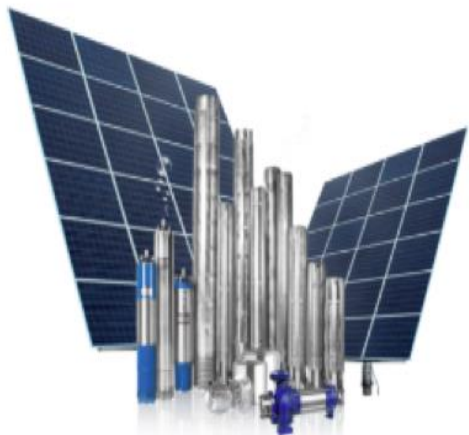
Solar water pumps/borehole package for crop and livestock farmers, household off-grid communities



COOLING:

Solar fridges for fisher folks, livestock farmers etc.

Solar Water Pumps



Pump Type	Submersible	Surface
Monthly Repayment	Starting from GHS 615	Starting from GHS 1,256
Water Source	Borehole, Well, Shallow Dug-Out	Rivers, lakes, streams, Dams
Use Case	<p>Users with water need of 4,000l to 20,000l</p> <p>Farm size of at most 5 acres</p> <p>Target:</p> <ul style="list-style-type: none"> * Households * Crop Farmers * Livestock Farmers * Community Water Supply 	<p>Users with water need of at least 20,000</p> <p>Farm size of at least 5 acres</p> <p>Target:</p> <ul style="list-style-type: none"> * Large scale crop Farmers * Large scale Livestock Farmers * Community Water Supply

Water Business Model



Lead Generation

4 Direct Sales Managers working with 29 Direct Sales Agents across the country prospect for clients through farmer engagements, advertisements, and leveraging partnerships.

Sales and Technical Surveys

A set of financial, personal and socio-demographic questions (score-card) asked by independent persons (Sales and Technical Agents) to determine client's payment capacity and willingness to pay obligations in time.

Documents requested include any National Identification Card and a proof of income: bank statements, purchase receipt and salary slips.

Credit Survey & Decision

A survey is done to establish consistency of responses to questions. A credit committee then makes a decision based among other things on credit score of client – high (decline) or low risk (accept).

Declined clients can re-submit their applications provided they resolve whatever that disqualified them.

Payment & Installation

Client makes standard 10% or 20% initial deposit with remainder spread over 17 months after signing contractual agreement.

Technical Agents then proceed to install pump for client.

PEG works with at least 5 Partner Shops across the country who serve as Stocking points/Distribution centers to help reduce our transaction costs in moving pumps to installation sites.

Post-Sales Services

- Bi-annual maintenance
- Agronomic support
- Market access support
- Regular check-in by an Account Manager to ascertain if pump is working well

Initial Observations

- Key constraints
 - Erratic rainfall patterns/dry spells
 - Limited access to water source
 - Inaccessible farms
- Key Outcomes of pump use:
 - Evidence of enhanced flowering, fruiting and pod growth
 - Time savings
 - Multiple water uses i.e. household chores, irrigating other crops
 - Improvement in general wellbeing as a result of accessing clean water
 - Benefit to other community members



Conclusion

- Regular access to water is essential to enhanced cocoa production
- There are other off-farm benefits to the solar pump beneficiary household and community
- Initial observations will complement results from an on-going *Willingness to Pay* Study that among others will enable PEG to know the marketability and affordability of solar water pumps in the cocoa sector.





THANK YOU!