

Syracuse University

SURFACE at Syracuse University

International Programs

International Programs

Summer 2020

Innovative Solution For Energy Supply In Rural Communities In Africa

Shilda Cardoso

Follow this and additional works at: <https://surface.syr.edu/eli>



Part of the [African Studies Commons](#), [Energy Policy Commons](#), and the [Growth and Development Commons](#)

The views expressed in these works are entirely those of their authors and do not represent the views of the Fulbright Program, the U.S. Department of State, or any of its partner organizations.

Recommended Citation

Cardoso, Shilda, "Innovative Solution For Energy Supply In Rural Communities In Africa" (2020). *International Programs*. 127.
<https://surface.syr.edu/eli/127>

This Poster is brought to you for free and open access by the International Programs at SURFACE at Syracuse University. It has been accepted for inclusion in International Programs by an authorized administrator of SURFACE at Syracuse University. For more information, please contact surface@syr.edu.

Abstract

This research is a proposition of an innovative solution for energy supply in rural locations across Africa to stimulate social and economic growth. In the continuing unsolved problems in energy supply for rural communities across Africa, an Innovative solutions like solar energy can help change this status quo, and improve the lives of many people throughout the continent.

Keywords: Innovation, Solar energy, Improve

Introduction

In today's world, energy is the engine to a community's social and economic development. This has been the Achilles heel for communities in rural locations in Africa due to poor energy policies and bad investment options towards those communities. Implementing Solar Energy in rural communities is a feasible option to unlock the challenges in energy supply in these locations.

1. The Challenges



- **Policies:** Outdated policies.
- **Investments:** Lack of financial and technological investment



2. Initial Changes



- Policy reform that would allow to transition from a monopolistic and closed energy model to an open and competitive model.
- An increased participation of third parties in the energy decision making and policy implementations,
- Government cooperation with Investors in the energy sector to establish fiscal incentives and financing options for construction of innovative rural energy infrastructure.

Innovative Solution for Energy Supply in Rural Communities in Africa

By: Shilda Cardoso, Fulbright Angola
Syracuse University

Instructors: Deborah McGraw, Jacqueline Schneider
August 7 2020

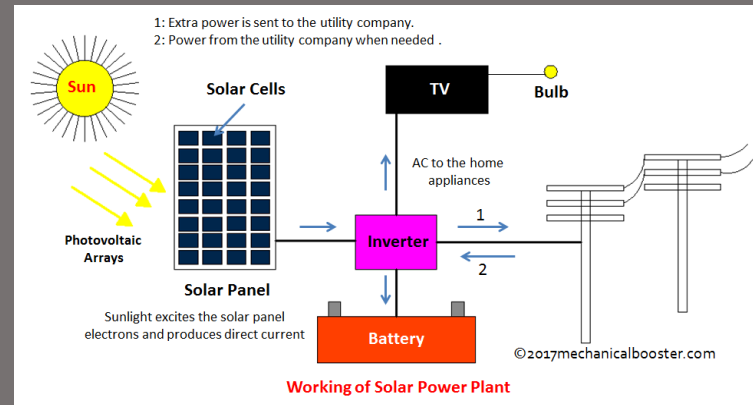
3. The Proposal

Installation of a Small Scale Solar Power Plant



Solar energy systems consist of technologies that use the sun's natural energy to produce electrical energy for residential, commercial, or industrial buildings.

Solar Power Plant Layout Diagram:



Considerations for Installation Design:

-Budget -Site accessibility - Power quality -Acceptable genset runtime
Level of automation -Aesthetics - Environmental Impact -Noise levels

4. The Benefits

- Supply of electric power for housing.
- Supply of electric power to local medical centers.
- Supply of electric power to schools.
- Supply of electric power to local business.



Conclusion

Many of the key innovative technologies that can unlock the challenges in energy supply in rural communities across Africa have been identified. By applying such innovations the problems can be over turned and communities can begin to grow socially and economically.

References

- Ilbáñez P .R, Ph.D.,- *The Role of Local Governments in the Energy Sector and Implications of the Energy Reform for Local Governments*
- Palau Workshop 8th-12th April: *Technical Design Guidelines Off-Grid PV Systems*
- <http://www.cuny.edu/about/resources/sustainability/solar>
- <http://www.cuny.edu/about/resources/sustainability/solar-America/nyc-communitysolar/CommunitySolarReportFINAL.pdf>
- <http://www.businessinsider.co.ke>
- <http://www.telcomlinker.com>
- <http://www.financialexpress.com>