



THE CHALLENGES OF DEVELOPING AN ENABLING ENVIRONMENT FOR OFF-GRID DEVELOPMENT

How the Sierra Leone Energy Revolution, supported through the Power for All Initiative, is transforming energy services in Sierra Leone

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Sierra Leone Decentralized Renewables Market

May 2016: launched the Sierra Leone Energy Revolution commitment

- ❖ The first country to sign the Energy Africa Compact with DFID
 - Reach 250,000 households with modern solar solutions by 2018
 - Achieve 'Universal Energy Access' by 2030
- ❖ Secured presidential commitment to 100% Power for All by 2025
- ❖ Established and led multi-stakeholder Energy Revolution Taskforce
(Collaboration) Inclusive of relevant ministries

The Vision



His Excellency President Koroma

Energy: "is in line with our Agenda for Prosperity bringing electricity to all of our 149 chiefdoms using modern solar and other renewable technology".

-State opening of Parliament 11 December 2015



Progress on Household and Rooftop Solar since May 2016

- ❖ **REASL:** Renewable Energy Association of Sierra Leone, established
- ❖ **Major international companies** have entered the country, including d.light, Azuri, Barefoot Power, TOTAL, Azimuth, BBox and Ignite Power
- ❖ **VAT and Tariff Waiver** now have a streamlined importation process to customs 'green channel', that is linked to qualified certified solar products (pico-PV and home solar market has tripled in size)
- ❖ **DFID** support from the Power for All campaign has united sector stakeholders
- ❖ **Household solar consumer financing pilot** between REASL and the Sierra Leone Association of Microfinance Institutions (**SLAMFI**) has been launched
- ❖ **Nation wide renewable campaign** to concertize the market {creation of champions from every district}
- ❖ **Government policy** on Renewable Energy Policy 2016 commits GoSL to ensure DRE becomes a significant part of the energy portfolio.

REASL : Achievements to date and objectives

- ❖ **Coordinating** the efforts of Private Sector companies to create a healthy market for renewable energy products in Sierra Leone
- ❖ **Supporting** the Ministry of Energy efforts to implement the waiver for high quality solar and energy efficiency products.
- ❖ **Negotiating** facilitated access to foreign currency with the Central Bank of Sierra Leone
- ❖ **Facilitating** events and demonstrations to raise awareness of DRE
- ❖ **Implementing** a partnership with the Sierra Leone Micro-Finance Association {SLMFA} to encourage the distribution of pico-solar products by MFI's
- ❖ **Attracting** investors and industrial partners to Sierra Leone



Energy Access: Challenges

❖ Unlocking Finance

- High interest rates from commercial banks are limiting growth of decentralized renewables companies
- Forex currency risk-hedging is holding the sector back

❖ Lack of Awareness

- Low awareness of the benefits of solar systems makes distribution a challenge
- Perceptions on solar products need to be changed

❖ Access to affordable products for customers

- Lack of consumer financing schemes limit affordability for consumers
- Micro-finance institutions and cooperatives are hindered by high interest rates

❖ Capacity building

- More capacity building is needed within the Ministry to fully implement the governments Rural Electrification Policy
- More training is needed including in engineering / technical skills, sales, book keeping and a number of other areas

Technological Developments

- ❖ **Technological Advances** - every country receives various “miracle technology” proposals from investors that claim to provide the best solution for the Country’s energy (or off-grid) generation. There is a **fundamental difference** between grid connected power generation and off-grid connected projects. Hence:
 - **Grid-connected projects** tend to limit themselves to one technology ending at the metering facility.
 - **Off-grid projects** must take into account the consumer, consumption and frequency of use. Hence, the project boundary is much less clear.
- ❖ **Financial and technical support mechanisms** – the plethora of grants, loans and programs is good but can also be complicated without a “**seasoned consultant**” or a **regulatory framework** to support private investors. Consolidation on the numerous information support mechanisms would be good to have.
- ❖ **Specialized Technical assistance** – is important especially addressing the **distributed nature of off-grid renewable energy technology**. It is difficult for public officials to understand the complex system (*e.g. right to feed surplus energy back into the grid or to sell it off-grid, etc.*)

“International collaboration and sharing of the up-to date data information advancements could be increased.”

Current Status: Mini Grids

- ❖ One of the largest PV mini-grid installations in West Africa has kicked off, in a partnership between the government, UNOPS and DFID
 - PV mini grids will be **installed in 50 villages** by the end of 2017
 - The 4 year program will ultimately benefit **500,000 people**
- ❖ **WHH** project is underway
 - Building solar **mini grids in six districts**



Energy Access: Opportunities

- ❖ 2017 will see the development of a full market-based **Energy Access Program**, focussed on:
 - Policy; Demand Creation;
Strengthening the Supply chain;
Unlocking Finance
- ❖ An **Energy Africa Compact refresh** will take place
 - to enable more donor support and participation in support of off-grid solar
- ❖ A **Sector Road Map** established:
 - To create an enabling environment to increase productivity, within modern energy services, wealth creation and quality of life for all



"A Call To Action"

"Since the **Sierra Leone Energy Revolution in May 2016**, much has been done to lay the foundations for universal energy access—from **VAT and tariff exemptions** for off-grid solar, to the **creation of a Renewable Energy Association** and the launch of one of **the largest PV mini grid projects** in West Africa. However, a lot more work is needed to end energy poverty for **7 million people** in Sierra Leone. We call on the international community to join us in our bid to **achieve energy for all by 2025**"

Sierra Leone Minister of Energy Henry Macauley

