

Frequently Asked Questions about the Rural Renewable Energy Project (RREP)

1. What is the RREP?

RREP is a Rural Renewable Energy Project. Funded by the United Kingdom Foreign, Commonwealth and Development Office (FCDO), the £37.7 million in funding project is implemented by the United Nations Office for Project Services (UNOPS) on behalf of the Ministry of Energy (MoE).

It also provides households, businesses and communities with the opportunity for economic growth, development, and improved quality of life in a sustainable way.

2. What is the expected project life cycle?

The project duration is from October 2016 – May 2022. The solar panels and batteries have more than 5 years of product warranty. The small mini-grids are operated by private operators investing in the project to ensure long term sustainability. This is done through the inclusion of private sector operators, who will continue to supply the 98 communities with renewable and reliable energy at an affordable price.

3. What are the expected outcomes and impacts of the project?

- Improve the lives of rural communities through economic growth,
- Create savings on fuel costs
- Improved health and education outcomes
- Improved social growth
- Significant reduction on Sierra Leone's future greenhouse gas emissions through the use of clean energy

4. What are the benefits of the RREP?

The project will contribute to Sierra Leone's economic development through increased access to rural energy resources while simultaneously contributing to a significant reduction in Sierra Leone's future GreenHouse Gas emissions.

5. How is the project being implemented?

- ✓ The project is implemented in close collaboration between GOSL and its partners DFID and UNOPS
- ✓ Local communities and their respective leaders were consulted at every stage of the project development
- ✓ Other stakeholders involved in rural development initiatives were also consulted
- ✓ The Governing stakeholders of the project are the Ministry of Energy (MoE), the Ministry of Health and Sanitation (MoHS), the Ministry of Finance and the Ministry of Local Government and Rural Development (MLGRD).
- ✓ The Electricity and Water Regulatory Commission (EWRC) acts as an independent party which manages the interests of customers under the project.
- ✓ Other stakeholders include the Public-Private Partnership Unit (PPP), The Environmental Protection Agency (EPA), the Office of the President, the Parliamentary Oversight Committee on Energy, The Millenium Challenge Corporation Unit (MCCU) community leaders the Renewable Energy Association of Sierra Leone (REASL).

6. Is electricity free?

The electricity connection is free for the Community Health Centres (CHCs) but it is not free to households. Households are expected to pay for the electricity.

7. What is the difference between the RREP electricity and the electricity supplied by EDSA?

The RREP electricity is supplied to the community through the use of solar panels. The energy is harnessed from the sun using solar cells, namely photovoltaic cells, which is converted from direct current into an alternate current via an inverter. Meanwhile, EDSA electricity supply uses hydropower to harness the energy of moving water to produce electricity, often referred to as hydroelectricity, attained in a hydropower plant. The hydroelectricity is gained through the use of gravitational force of falling water from high altitudes, or through the potential energy of water flow in rivers.

Productive Use

8. How will the RREP stimulate local economies?

Energy is crucial for enterprises, driving economic and social development by increasing productivity, income, and employment, reducing workloads and freeing up time for other activities, as well as facilitating the availability of higher-quality or lower-priced products through local production. Also, providing energy to businesses ensures the higher economic sustainability of electrification projects, as productive activities often translate into higher energy demand density and an increase in customers with more capacity to pay. Energy for community services (e.g. health and education) is fundamental for socio-economic development because it can lead to the substantial improvement of human capital.

9. What are the success criteria for the project and how will they be measured?

The RREP is expected to:

- Provide 98 rural communities with access to high quality, reliable, sustainable and affordable electricity by 2021.
- Strengthen the health sector by providing CHCs with access to electricity for effective services even at night.
- Encourage economic growth through opportunities for businesses to develop electricity-based activities and services.
- Contribute to the capacity building of the local construction and electric installation sector through the use of and training of local contractors.

Success will be measured through comprehensive Monitoring and Evaluation which will include:

- Conducting a baseline, midline and endline evaluation in all the electrified communities which intends to capture the impact of mini grids by looking into the following four domains:
 - 1) Does increased access to electricity increase incomes and assets?
 - 2) Does increased access to electricity improve health conditions?
 - 3) Does increased access to electricity increase school attendance?
 - 4) Does increased access to electricity reduce CO2 emission?
- Assessing different dimensions and aspects such as quantifying and qualifying potential electricity consumption by productive/commercial users, business perspectives and expansions, job creation, etc;
- Assessing and understanding the immediate (socio-economic) effects of the implementation of the village grid including its tariff model;
- Assessing the changes in the livelihood of people, quality of services provided by the CHC, uptake of energy by productive users and educational activities at home and connected schools by collecting 'most significant change' stories using web platforms;
- Assessing and understanding the immediate (socio-economic) effects of the implementation of the village grid including its tariff model;

Household Use

10. What are the benefits of mini-grid electricity?

Rural electrification programmes are crucial to improving living conditions and promoting development. Households will have access to clean, reliable and affordable electricity in their homes, which can power all their appliances, 24 hours a day. This will bring income by increasing their access to markets and improve education outcomes by allowing children to continue studying after dark.

11. How do households get connected and what are the requirements?

The operators are responsible for connecting households. For a household to get connected the Head has to express interest for the house to be connected, then pay a

registration fee of SLL 150,000. Thereafter the operators will do the necessary connection in the houses and they will be connected.

12. Is there a charge for the electricity supplied to households?

Yes, there is a charge for the electricity supplied to households. The average cost of electricity per kWh is SLL 7,867. The mini-grids generate energy from sunlight, but installing and maintaining the equipment needed to generate the electricity and supply it to homes and businesses costs money and a cost is charged for this service.

13. Should public structures (Mosque, Church, Court Barray, Schools, etc) pay for electricity?

Yes, only the electricity supply to the CHC is free. The CHCs staff quarters should pay for the electricity. All other public institutions are expected to pay for the electricity.

14. Will all households receive electricity, including thatch and mud houses?

Yes, the project aims at increasing energy access in the country, and will not discriminate against any structure as long as the structure of the household is safely able to accommodate indoor wiring and is willing to pay for energy use.

15. How does the cost of energy supplied through the RREP compare with previous sources of energy used by households?

Baseline studies conducted after the inception of the project in various villages around the country show evidence that the overall cost of batteries, phone charging and fuel purchases used by rural communities is higher than the cost of electricity from the mini-grids.

Private Sector Engagement

16. Who are the operators?

Three private-sector operators – Off-Grid Power (OGP/Power-Gen), Energicity (Power Leone) and Winch Energy – are responsible for operating and maintaining the mini-grids. The selection of the operators was done through public procurement tenders processed by MoE.

17. What regulatory changes were made to encourage private sector engagement in the project?

The Sierra Leone Electricity and Water Regulatory Commission (EWRC) developed a Tariff Regulation Policy with UNOPS and MoE in 2019 to streamline processes for a licence, metre and tariff approval as well as a detailed tariff calculation methodology and compensation mechanism for grid interconnection. The Policy was approved by Parliament in December 2019.

18. What are the advantages of private sector operators investing in the project?

Private investment is intended to ensure the sustainability of the existing mini-grids and attract additional investment into the project.

The initial 50 mini-grids were financed through funding from DFID. Generation capacity was increased by attracting the private sector investment for the additional 44 communities. These will be completed by October 2020 through co-investment by DFID and the private sector. Private sector operators will also use their financing and experience in the sector to power and maintain the generation facilities and supply electricity to communities at a cost.