



Government of Sierra Leone
Ministry of Energy



Frequently Asked Questions about Enhancing Sierra Leone Energy Access Project (ESLEAP)

1. What is ESLEAP?

ESLEAP, short for Enhancing Sierra Leone Energy Access Project, is a project funded by the World Bank with a total budget of \$12.7 million and implemented by the United Nations Office for Project Services (UNOPS) on behalf of the Ministry of Energy (MoE) of Sierra Leone.

The project's main goal is to increase access to energy to target populations. By doing so, the project is also expected to provide households, businesses and communities with the opportunity for economic growth, development, and improved quality of life through sustainable energy sources.

2. What is the objective of the project?

The objective of this project is to increase energy access in Sierra Leone by electrification through mini-grids targeting communities with productive use potential, and stand alone solar systems aimed at electrifying schools and hospitals across the country.

3. What is the expected project life cycle?

The project duration is from December 2021 to December 2024. The solar panels and batteries have product warranty for PV modules, 12 years and, product warranty for batteries five (5) years. The small mini-grids will be 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 selected communities with renewable and reliable energy at an affordable price even after the end.

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

The expected outcome is as follows.

- Improved access to energy of communities through renewable, reliable and affordable energy sources

The expected impacts are as follows.

- 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

5. What are the benefits of ESLEAP?

The project will contribute to Sierra Leone's economic development through increased access to energy resources while simultaneously contributing to a significant reduction in Sierra Leone's future greenhouse gas emissions. In concrete, a total of 2.8 MW of solar power system capacity (Moyamba: 0.85 Mw; other 9 mini-grids: 0.5 Mw; 500 schools: 1Mw; 200 health facilities: 0.4 Mw) is expected to be installed. It is expected to benefit about 3,000 households and 350 industrial and commercial businesses, 200 health facilities and 500 schools which are not going to be electrified through grid extension in the next five years. Moreover, libraries of about 50 selected schools will be provided with solar lanterns.

6. Please provide more details about objectives and activities

Objective 1: installation of mini grids with storage capacity

- Activity 1.1 **Moyamba Power Generation Assets** - The proposed size for the Moyamba power generation assets is 0.85Mw solar mini-grid with 1,800 kwh battery backup.
- Activity 1.2 **Other Community Mini-grids** -This subcomponent will include the installation of generation capacity and distribution networks of 0.5Mw in 9 communities (Dodo Kortuma, Baiwalla in Kailahun District, Mandu, Gbaima Songa in Bo District, Kukuna in Kambia District, Manjoroh, Karina Town in Bombali District, Gbentu in Falaba District, Fogbo in Western Area Rural).

Objective 2: Installation of solar PV systems for the health facilities and schools

- Activity 2.1 **Health Facilities** - The aim is to install solar PV systems for approximately 200 health facilities with a capacity of 0.4Mw each. These are health facilities which are not going to be electrified through grid extension in the next five years.
- Activity 2.2 **Schools** - Activities under the sub-component will aim to install solar PV systems for about 500 schools each with a capacity of 1Mw. These schools are schools which are not going to be electrified through grid extension in the next five years.

Objective 3: Provision of TA for market assessment, capacity building, result monitoring and evaluation (M&E)

- Activity 3.1 **Market Assessment** - The project will conduct a market assessment and affordability analyses of productive uses in rural Sierra Leone
- Activity 3.2 **Results Monitoring** - A market assessment and affordability analyses of productive uses in rural Sierra Leone will be conducted. Lessons learned will be

documented and shared with key stakeholders. MoE's existing M&E system will be further strengthened to track and monitor progress against the targets

- Activity 3.3 **Awareness Raising** - Communities will be engaged to sensitise them on upcoming projects, the need to pay for electricity supplies, tariff structures, complaint mechanisms, safeguarding issues; and raise their awareness and understanding of energy access
- Activity 3.4 **Capacity Building** - Capacity building activities will be implemented to strengthen business management skills among rural and urban business communities, including women-led businesses; and the private sector.

7. Where are the nine mini-grid sites ?

MoE has started discussions with some land owners in some of the communities selected and the willingness to hand over the land is there. Below are the lists of Towns:

| Districts | Chiefdoms | Towns |
|--------------|--------------------|--------------|
| Kailahun | Luawa | Dodo Kortuma |
| Kailahun | Dia | Baiwalla |
| Bo | Valunia | Mandu |
| Bo | Gbo | Gbaima Songa |
| Kambia | Bramaia | Kukuna |
| Bombali | Biriwa | Manjoroh |
| Bombali | Gbendu Ngowahun | Karina Town |
| Falaba | Folosaba Dembelia | Gbentu |
| Western Area | Western Area Rural | Fogbo |

Sites were chosen on the basis of the population size and interest of the future investors in those sites. One of the initial criteria for the villages was to identify sites that were not part of any known electrification plan (e.g. CLSG, ECOWAS funding etc.). Other criteria sets include maintaining a fair distance from the existing and planned grids, availability of the required number of structures for electrification, retaining a reasonable distance from the environmentally protected areas etc.

8. Please summarise key implementation steps

Key implementation steps in the process leading to the availability of the light include:

- Land acquisition and transfer. This will involve a documentation process between the Ministry of Energy and the landowners

- Environmental impact assessment and public disclosure
- Design development and approval
- Procurement and delivery of materials to the site and handing over to the contractor
- Installation of the materials (panels, batteries, inverter's, etc)
- Commissioning and handing over of the sites to Ministry of Energy and to operators

9. How is the project being implemented?

- The project is implemented in close collaboration between GoSL and its partners World Bank 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 project establishes a Grievance Redress Mechanism to hear the complaints or address the concerns of
- aggrieved parties to a fair extent and on time. Community members can call through a toll-free line or visit information centres (UNOPS Bo Office/Makeni Office) and post their suggestions/complaints through suggestion boxes.
- The governing stakeholders of the project are the Ministry of Energy (MoE), the Ministry of Health and Sanitation (MoHS), the Ministry of Basic and Senior Secondary School Education,,the Environmental Protection Agency (EPA) the Ministry of Finance, the Ministry of Gender and Children's Affairs, the Ministry of Youth Affairs, the Ministry of Lands, Housing and Country Planning (MLHCP), the Ministry of Local Government and Rural Development, and the Ministry of Agriculture and Forestry (MAF).
- 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 Ministry of Environment, , the Office of the President, the Parliamentary Oversight Committee on Energy, the Electricity Distribution and Supply Authority (EDSA), Local Councils, Paramount Chiefs, Non-Governmental Organization (NGO), Community-Based Organization (CBO), Civil Society Organization (CSO), Women's Group, Person Living with Disabilities Groups, Sierra Leone Police, religious leaders, and more.

10. How can stakeholders contact the project team?

Stakeholders can contact the project team through the The project team can be contacted through the Project Information Centre (PIC). The project offices in Moyamba and Makeni will act as the Project Information Centre (PIC). The PICs will be equipped with trained human resources and necessary logistics. The PICs will be maintained by the Community Liaison Officer (CLO), who is well-trained to handle the flow of information and grievances related to the proposed project. The PIC will welcome visitors from the local communities and the district to obtain project information, ask questions, raise issues, or lodge grievances.

11. Are there any other ways to contact the project team aside from PIC?

A project website will be established in the pre-construction phase to provide information about the project and disclose all project-related information to the broader public. The project website will be regularly updated with new project updates, such as ongoing and upcoming project activities, job opportunities for the local workforce, benefit sharing, and livelihood restoration activities. It will also allow the public to submit issues or grievances related to the project development.

Moreover, **the project telephone line (toll-free line) and email** will also be made available during the pre-construction phase to enable the public to ask questions, raise issues, and submit grievances.

A social media platform in Moyamba will also be established during the pre-construction phase, which will offer a platform for the proposed project proponent to disseminate project-related information, allow stakeholder questions and concerns, and provide suggestions. The social media platform, which will be maintained throughout the project lifecycle, will also serve as a window for stakeholders, including the PAPs, to present grievances.

12. Does the project support vulnerable groups ?

Vulnerable groups are underrepresented and voiceless people who may not be able to access project information, articulate their concerns and priorities about potential project impacts and submit an official grievance, or take opportunities unveiled by the project due mainly to several barriers, such as poverty, illiteracy, and lower social status, among others.

The project will ensure full and effective participation of vulnerable groups in project-related consultations through

- Women-focused groups
- FGDs with IPs
- Household visits
- School visits
- Consultations held in the local language

13. Where should I report when I have my comments or complaints ?

At the Community/Chiefdom level, a Grievance Redress Committee (GRC) shall be established and composed of traditional chiefs, ward committee representatives, the project, community-based organizations, Legal Aid Board (as Arbitrator), and law enforcement agencies. The GRC will be headed through a consensual appointment with affected communities, and steps will be taken to ensure that all grievances are properly documented and transferred to the digital platform for resolution tracking. However, PAPs may also complain by calling, sending texts, putting comments in suggestion boxes or through the digital platform

14. Will this project employ female workers during the implementation stage?

Yes. Strong-abled women who are willing, skilled, and can make themselves available will be employed. Women may also be employed for nursing services for injured construction workers.

15. Contractors usually bring skilled workers during implementation. However, there are skilled men within the community, will they be employed?

Yes. The contractors will be engaged and encouraged to work with skilled and strong men and women within the communities.

16. What is the required area of land needed for the mini-grid installation?

It requires a minimum of two (2) hectares for the mini-grid installation.

17. How do you manage land acquisition ?

Land acquisition is a very critical issue and if not properly managed can have adverse impacts on communities and persons, subsequently impacting project delivery. The World Bank E&S framework recommends that involuntary resettlements should be avoided as much as possible, or appropriate measures should be taken to mitigate any adverse impacts. Thus, this project will use community lands freely donated by the communities as the World Bank does not authorize purchase of land for the installations, under this project.

18. Is electricity free?

The electricity is not free. Households, schools, Community Health Centers and other public facilities are expected to pay for the electricity.

19. What is the difference between the ESLEAP electricity and the electricity supplied by EDSA?

The ESLEAP 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 are converted from direct current into an alternate current via an inverter. Meanwhile, EDSA electricity supply uses hydropower and thermal generators 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.

20. How will the ESLEAP 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.

21. 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.

Households

22. 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 **SLE 150**. Thereafter the operators will do the necessary connection in the houses and they will be connected.

23. What are the responsibilities of the local community members?

It is the collective responsibility of the local community leaders and their members, and the beneficiaries to ensure that the installations come to no harm in the community. The community should look after the systems to prevent theft or damage.

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

Yes, there is a charge for the electricity supplied to households. The cost will be determined by the Operator and regulated by EWRC. The average cost of electricity per kWh is **SLE 7.9**. 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.

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

Yes. All public institutions are expected to pay for the electricity.

26. 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.

27. How does the cost of energy supplied through the ESLEAP 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

28. What happens after the construction of the solar systems?

After the construction of the solar systems, Private Operators' involvement coupled with local community engagement will be key features for the sustainable delivery of electricity services. These operators will manage the electricity connection and supply and maintenance of the system.

29. Who are the operators?

There are three private-sector operators in Sierra Leone – Power-Gen, Power Leone, and Winch Energy. They are responsible for operating and maintaining the mini-grids. **The selection of the operators have not yet been conducted.** This will be done through the public procurement tenders process.

30. 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.

31. 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. Private sector operators will use their financing and experience in the sector to power and maintain the generation facilities and supply electricity to communities at a cost.

Monitoring and Evaluation

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

The ESLEAP is expected to:

- Increase electricity access in Sierra Leone
- GHG emissions reduced/avoided (tons CO₂ / year)
- Households, Health Centers, Schools, business and other public institutions provided with clean energy based mini-grid electricity
- Sustainable management of public electrification investment
- Socio-economic growth in the mini-grid communities in terms of:
 - increase of electrical appliances
 - increase of operating hours of businesses
 - readiness of health facilities for service availability increased
 - increase of extra study sessions in the schools
 - Extra study time per day (mins, HH level)
 - users reported improvements in their health
 - customers feel safer in their homes

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

- Result Management: The project logframe is the basis of results management. The logframe clearly outlines the results statements at each level and well-defined standard and customised indicators.
- Project Impact Monitoring and Outcome Harvesting: Strategies, methodologies and web-based toolkits will be developed and rolled out in order to capture the intermediate changes because of mini-grid electricity and project interventions. As part of the impact monitoring and outcome harvesting process, the UNOPS M&E team aims to collect the most significant change stories (MSC stories), best practices, and the pattern of socio-economic growth over time.
- Project Impact Evaluation: A detailed impact evaluation plan consisting of key research domains, evaluation indicators, and measurement methods will be prepared to calculate the high-level impacts of the project. Baseline and endline surveys will be conducted accordingly.
- Value for Money (VfM) Framework: UNOPS M&E team will develop and agree upon a VfM strategy and measurement metrics to assess how the project utilised resources to maximise the impacts on beneficiaries.