**BACKGROUND AND CONTEXT**

To promote Sierra Leone’s long-term inclusive growth, there is a need to tackle the net deficit of power production. With a rapidly increasing demand for electricity, the Government of Sierra Leone has embarked on an ambitious strategic investment plan geared towards establishing reliable and sustainable electric power generation points across the country in all districts. To this end, the Ministry of Energy (MoE) has developed a National Energy Policy to increase energy access and generation capacity.

The Rural Renewable Energy Project (RREP) was developed to support the Government of Sierra Leone’s goals towards low emissions, climate resilience, gender sensitivity and sustainable growth trajectory. It is further anchored in the National Energy Policy and the Sustainable Energy for All (SE4ALL) initiative.

Supported by the UK’s Department for International Development (DFID), the RREP is implemented by the United Nations Office for Project Services (UNOPS) on behalf of the MoE. The RREP, which spans from October 2016 to October 2021, provides clean energy access which also sustainably grows the country’s energy capacity.

**ACHIEVEMENTS**

The project is being completed in several phases. The first phase, which involved the installation of solar power in 54 community health centres and network distribution to one school in Conakry Dee, Port Loko District, was completed in July 2017. Phase 2, implemented in 2018, expanded 50 of the previously constructed 54 health centre solar power stations and installed distribution networks throughout each village, creating 50 independent mini-grids. These distribution networks would extend the electricity access to houses, schools and businesses in the various villages. A further 44 installations will be completed by December 2020 by private sector investors. Through this project, the private sector at the international level is involved to operate and maintain these mini-grids while co-investing with DFID. Currently, three private sector companies (Winch, OG/PowerGen, and Energicity/Power Leone) are engaged to maintain and operate the 94 mini grid systems. The companies signed a Public-Private Partnership (PPP) agreement with the Government of Sierra Leone in December 2018, leveraging more than $10M in...
PARTNERSHIP AND SUSTAINABILITY

The project will contribute to the Government’s goals for sustainable development and adaptation to climate change by utilising multiple sustainability initiatives.

Private sector involvement is key to the sustainable delivery of electricity services. Drawing from experience elsewhere, private sector-driven mini-grids are considered to provide the highest chances for success.

RREP mini-grid sites are poised to be hubs of new and improved economic activities generating better employment opportunities and incomes, fostering greater social and economic welfare for communities.

To leverage this opportunity, RREP and partners have put in place a rural energy market development strategy. In collaboration with the private sector, this will increase access to and drive uptake of, new and improved rural energy-reliant economic opportunities and productive use equipment.

It also seeks to forge shared-vision partnerships with public, private and social sector stakeholders working to drive developmental outcomes in health, education, gender parity and overall poverty reduction. It seeks to support mini-grid operators toward the provision of commercially viable energy services in rural communities.

private sector investment. Through a competitive process, the private sector companies were selected to connect individual households and to operate the power supply network in each village. Each operator is operating in different areas allocated by Lots. In January 2019, the 54 completed installations were handed over to the operators in lots. I.e. Lot 1 and 2 is operated by OGP/PowerGen; Lot 3 by Winch energy and Lot 4 by Energicity/PowerLeone.

EXPECTED OUTPUTS, OUTCOMES AND IMPACT

The RREP’s projected impact is a welfare increase in rural communities through economic growth, saved fuel costs, improved health and education, and improved communications. The programme will also significantly reduce Sierra Leone’s future greenhouse gas emissions. To do so, the RREP aims to provide up to 4 MW of sustainable renewable electricity in rural communities through mini-grid installations with private sector involvement. RREP will construct 94 solar-powered mini-grids and 3 stand-alone systems on the sites of Community Health Centres (CHCs), in rural communities across the country.

STRATEGIC APPROACH AND OUTPUTS

The RREP implementation strategy is developed around various work packages (WP):

- **Work package 1 and 1+** was completed in July 2017 and implemented in 2 phases which targeted 54 CHCs in 12 districts: Bo, Bombali, Bonthe, Kailahun, Kambia, Kenema, Koinadugu, Kono, Moyamba, Port Loko, Pujehun and Tonkolili.
  - **Phase 1:** 6.6kWp solar photovoltaic (sPV) generation facilities installed at CHCs in 54 communities.
  - **Phase 2:** Transformation of 50 of the 54 phase 1 facilities into small mini-grids with a capacity of up to 36kWP to connect some public institutions and households in the villages. The small mini-grids are operated by private operators investing in the project to ensure long term sustainability. As at November 2019, 2, 930 households in rural communities are connected with electricity.

- **Work package 2**: Extension of mini-grid installations in 44 additional communities which is expected to be completed by October 2020. The WP 2 communities are spread across 13 districts (Bo, Bombali, Bonthe, Kailahun, Kambia, Kenema, Koinadugu, Moyamba, Port Loko, Karene, Falaba, Pujehun and Tonkolili) within Sierra Leone. These are bigger communities which will need bigger generation assets (power plant) of equal or more than 36kWP per community.

- **Work package 3**: Technical assistance and institutional support (capacity building) to the government and the private sector, to facilitate an enabling environment for mini-grid development and long term sustainable operations.

- **Work Package 5**: Monitoring and Evaluation (M&E) and Communications. An M&E plan, which encompasses impact evaluations, value for money, logframe and theory of change ensures that the project meets the expected outcomes and deliverables. Communications will emphasise the project as a successful, dynamic and responsive framework, providing and promoting cost-effective, clean and renewable energy to underprivileged communities in rural Sierra Leone.

- **Work Package 6**: Productive Use. Strengthen and promote productive use in mini-grid areas to contribute to the local economy and social growth for the communities and in the end increase the welfare of the supported communities. This is hinged on the premise that electricity is necessary but not sufficient for economic development, meaning that the effectiveness of interventions to increase energy access (including solar mini grids) are dependent on the degree they stimulate productive use, especially by firms.