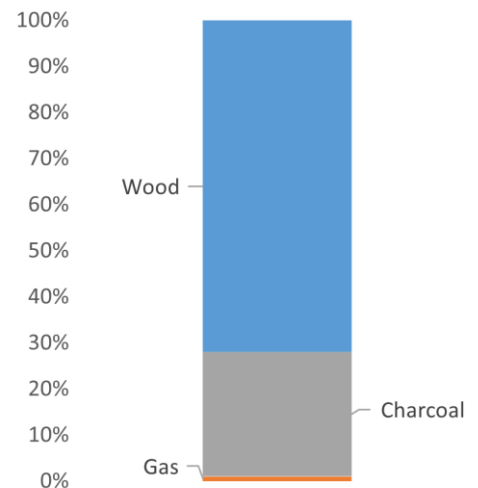
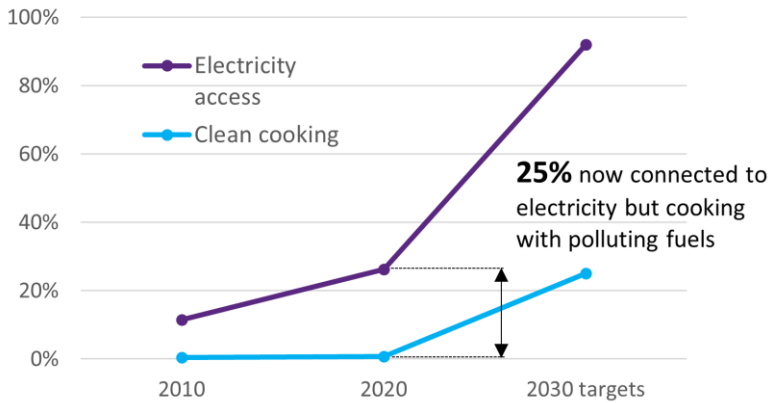


## Current Situation: Electricity Access, Clean Cooking

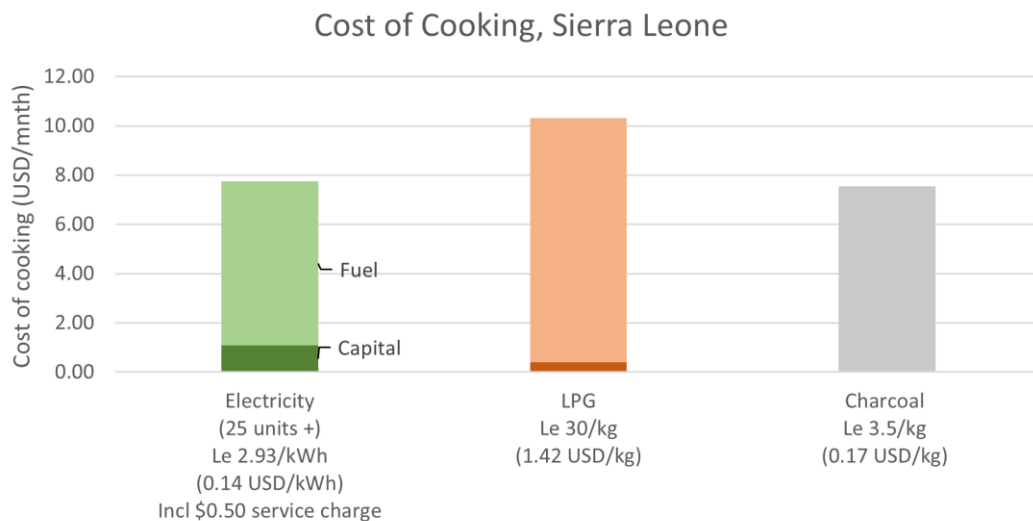
- 26% have access to electricity.
- 27% cook with commercialized polluting cooking fuels (charcoal); and 99% cook with polluting cooking fuels.



Above: Electricity and clean cooking access, [World Bank](#) and [SEforALL Action Agenda](#). Note: 2030 25% clean cooking target is for LPG, biogas, and solar thermal cooking, made in 2015, not including the opportunity of eCooking. Right: Primary cooking fuel use, [Sierra Leone Integrated Household Survey \(SLIHS\) Report, 2018](#)

## Potential for eCooking

- **25% of people are connected to electricity and not cooking with it** – only 5% of those living in rural areas have electricity but urban centres such as Freetown can be targeted.
- **It is cheaper to cook with electricity compared to LPG**, and it's a comparable cost to cooking with charcoal, while being **less harmful to health and the environment, saving time and being more convenient**.



Cost of cooking over a month, using international averages for cooking energy demand from ESMAP (2020)<sup>1</sup>, and local electricity/fuel prices and capital costs from spot checks in Feb and March 2023 and estimates from other countries for markets which in Sierra Leone are not yet developed. Includes cost of appliance levelized over stove lifetime. Electric appliance is an EPC. Firewood not included as it's usually gathered.

<sup>1</sup> Energy Sector Management Assistance Program. 2020. Cooking with Electricity: A Cost Perspective. World Bank, Washington, DC. © World Bank. License: CC BY 3.0 IGO.

- Electricity is cheap to cook with when using **new, highly efficient appliances** such as electric pressure cookers (EPCs) and rice cookers, which save lots of electricity compared to hotplates.
- The **upfront cost of these appliances can be reduced** using PAYGO schemes, carbon finance, and buying on credit through, for example, on bill financing by the utility.
- Common foods like rice, cassava, meat and beans are suitable for cooking on an EPC, and are cheaper to do so compared with other fuels.
- 90% of the electricity generation comes from low carbon renewable sources, and the government intends to increase hydropower to over 800 MW by 2030<sup>2</sup>. Thus, cooking with grid electricity is cooking with almost all renewable energy.

### **MECS programme activity**

- MECS works closely with Hon. Dr Kandeh Yumkella and The Energy Nexus Network (TENN) to provide support and share relevant information.
- MECS has collaborated with Local Governments for Sustainability (ICLEI) which is funded by Transforming Energy Access (TEA) working in Sierra Leone.
- MECS has supported Easy Solar with engagement to pilot an EPCs on mini-grid project in 2021.
- Work on Insulated Solar Electric Cooking (ISEC) undertaken in 2021 in Sierra Leone with academics from California State Polytechnic University.

This material has been funded by UKAid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.

<sup>2</sup> [UKRI, 2020, Country Guide: Sierra Leone.](#)