

RESEARCH PAPER: UNDERSERVED POPULATION IN RWANDA

Country electricity access

- As of May 2022, the electrification rate is at 71.92% of Rwandan households, 50.16% connected to the national grid, 21.31% connected through off-grid systems, and 28.08% non-electrified.

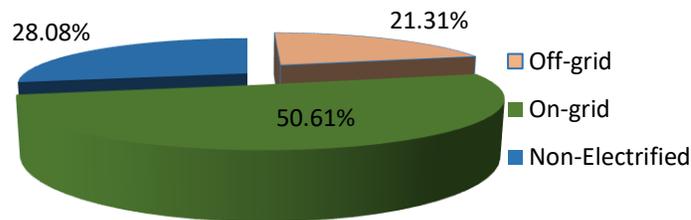


Figure 1: Electricity Access rate as of May 2022.

- Cumulatively, 2,709,000 Rwandan households are electrified as reported by the NISR (EICV, 5)¹ through various sources of energy, including hydro, solar, methane, thermal and peat.
- Since its existence in 2016, EPD was able to mobilize private sector companies to actively engage in energy generation and

Off-grid Connection rates



- Since 2016, the Off-grid sector was able to connect 577,288 households through various off-grid technologies, including Stand Alone Solar Home Systems and Mini-grids (Solar & Hydro). However, there are some Districts in remote area that show very low Off-grid connection rates³ which need special attention.

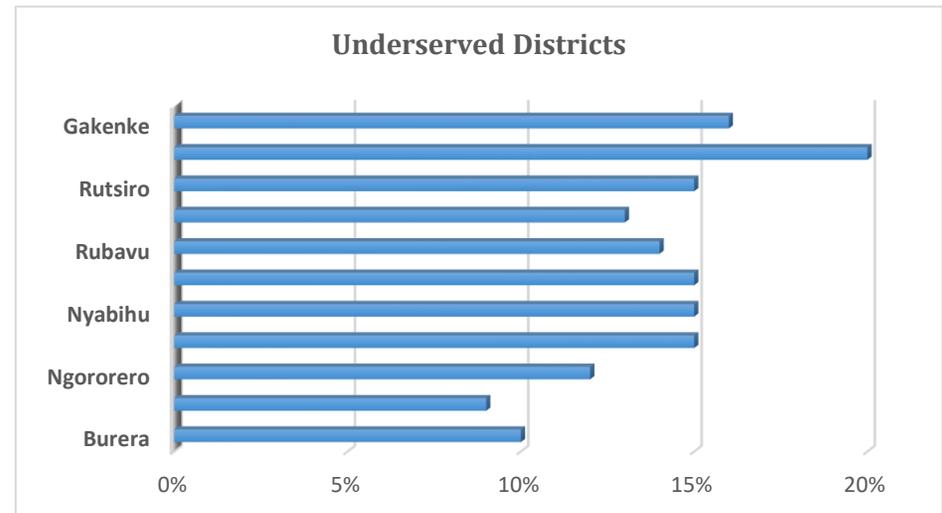


Figure 2: Underserved Districts in remote areas <or =20%

¹ <https://www.statistics.gov.rw/datasource/integrated-household-living-conditions-survey-5-eicv-5>

³ <https://www.reg.rw/what-we-do/access/offgrid/>

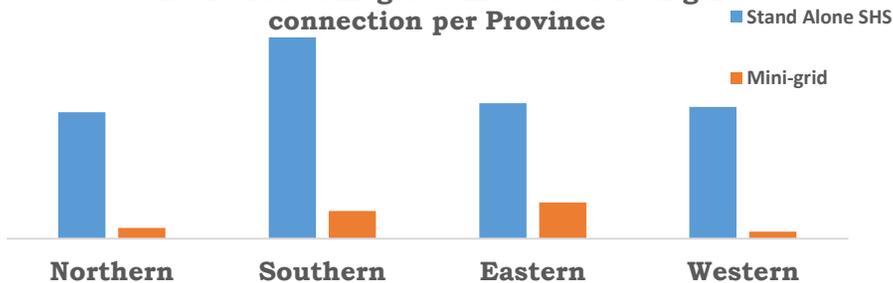
its efforts resulted to 21.31% of household connection as seen in the figure1 above.

Household Electrification Gap



According to the Ministry of Local Government, Rwanda has 14,837 villages populated by 13,583,640 people. A village is esteemed to be populated by 200-500 people and cover up around 10 ha of land. The revised NEP 2021² plans to electrify the remaining underserved villages by 2024, where 1,320 villages are assigned to SAS, 203 villages to Mini-grids and 13,293 to National Grid extension.

Underserved villages demarcated for off-grid connection per Province



Reasons for slow electrification and proposed solutions

Why slow connections:

- Demography: Rwandans in the villages are scattered in hilly areas which makes it difficult to electrify those areas demarcated to Off-grid.
- Affordability: Few people in remote areas are not able to buy packages of Off-grid systems without any subsidy support.
- Attitude: People are reluctant on buying off-grid systems expecting to tap into cheaper national grid.

Proposed solutions:

- Public awareness: People living in villages demarcated for Off-grid need to be sensitized about Off-grid technologies as an interim solution assigned to their areas before they are connected to the grid.
- More subsidy programs: There is a need for more financing programs and subsidies in the Off-grid sector that will lower the prices of the systems.

² https://www.reg.rw/fileadmin/NEP_2021_Revision_Concept_Note.pdf