Off-grid systems for residential consumers

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The combination of renewable energy

- Biomass
- Wind energy
- Photovoltaic
- Hydro power
- Geothermal
Combined with a smart grid and storage
Biomass

Wind energy

Photo-voltaic

Hydro power

Geothermal

Smart grid

Storage systems

Citizens participation and private ownership

driven by the most important gear
Biomass
Wind energy
Photo-voltaics
Hydro power
Geothermal
Smart grid
Storage systems
Citizens participation and private ownership

makes the ultimate energy system
The three main sectors of energy: Energy, Mobility, Storage.
Micro and mini-grids (MG)

Standard-alone Systems (about 90%)

Off-grid systems for residential consumers
Plug-and-play (PnP):
all-in-one packaged kit

Solar Portable Lights (SPL):
Power range: 0.2-2 W

Pico PV Systems (PPS):
Power range: 2-10 W

Solar home systems (SHS):
Power range: 10-250 W

Residential Home Systems (RHS):
Power range: 250-1000 W

Off-grid systems for residential consumers
Off-grid business models

- Up-front payment to installments: **Pay-to-own**
  - System activation through a code on scratch card
  - Unit remotely turned off upon late payment
  - Once fully paid, unit is permanently turned on and owned by customer

- Products sales to services supply: **Pay-as-you-go**
  - Customer takes home Solar PV product after initial deposit
  - Embedded SIM card enable further payment through mobile platform
  - Once fully paid, unit is permanently turned on and owned
  - Modularized systems that can be extended
Off-grid business models
More than 100 energy professionals train at RERC per year
Together for Africa