

Chitungulu y Chifunda, The very first of many electrified villages in Zambia

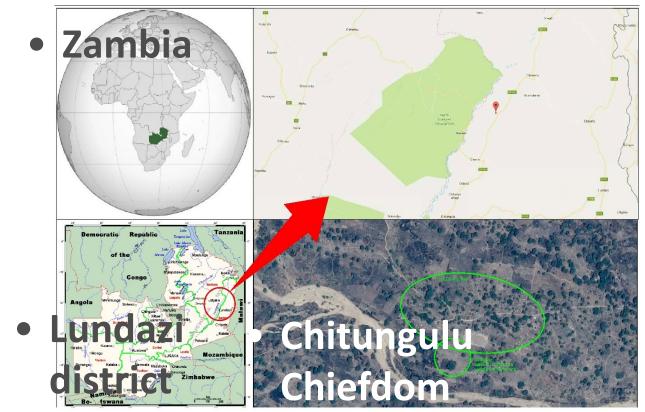
Project: Zambia Rural Improvement

Capacity: 500 kW PV in 10 generation units of 50 kW each spread across in 5 villages. LV distribution.

- Servicing: 6 schools, 5 clinics, 12 churches, 7 maize mills, public buildings (including Rangers from Nacional Parks), CRB, 12 water wells, around 40 existing business, 5 antennas, 1500 households.
 - **Other:** water pumping for irrigation. Ice-making factory.
- **Renting:** electric devices, batteries.

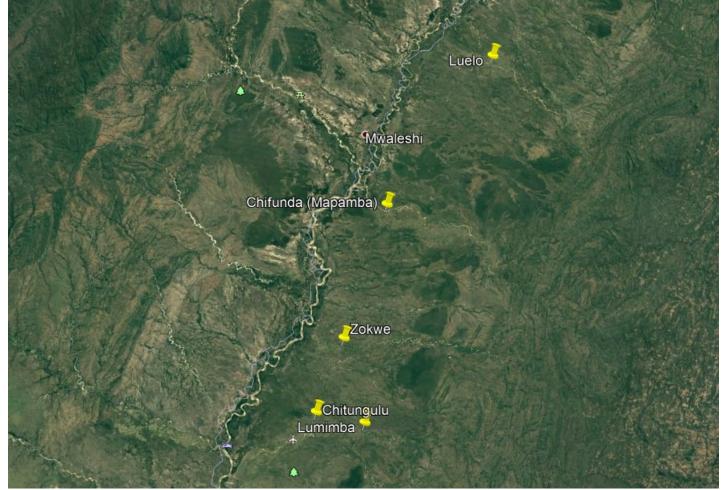


Localización:





5 villages location: 3 in Chitungulu chiefdoom and 2 in Chifunda chiefdoom.





Aereal view of one of the sites





Generation unit:

LV grid:

▶50 kW PV

- 250 kWh batteries
- 1 diesel generator as back
 up
- Grid controller





Maize milling

- Water pumping
- Food preservation (fish & vegitable)
 - Antennas



Productive

uses of energy:







New business :



Sewing workshop

- Beauty parlour
- Restaurants, bars Shops,
- woodwork
- Cell phones rechargingfacilities





Public institutions

- Electric supply. Schools
 - for public services :
 - Churches
 - Administrative buildings





Fundamentals:

TOTAL POPULATION SERVED	15.000
TOTAL INSTALLED POWER	500 kW
CAPEX	\$6.132.547
Project's Internal Rate of Return (20yr)	0,8%
Sponsor's Internal Rate of Return (15 yr)	12,2%
Payback (years)	10



iiMUCHAS GRACIAS!!

