

GREEN ENERGY & SUSTAINABILITY

Balance solar mini-grid loads at rural clinics

Health NGO • Matabeleland South



Keep vaccine fridges and maternity lights running at rural clinics by managing solar loads smarter.

POSTED BY	Health NGO • Matabeleland South	PILOT BUDGET	US\$15,000
LOCATION	Matabeleland South (12 clinic sites)	APPLICATIONS CLOSE	6 Nov 2026
SUB-THEME	Green Energy & Sustainability	TEAM SIZE	2–6 people

1 The problem

Background

The NGO supports 12 rural clinics in Matabeleland South that run on solar mini-grids with battery storage. The systems power vaccine refrigerators, lighting, and the staff houses next door.

What's going wrong

In cloudy spells and at night the batteries run flat, and the vaccine fridges lose power along with everything else. Staff get no warning and have no easy way to put critical loads first.

2 What we need

A strong solution will:

- ✓ Protect critical loads (vaccine fridge, maternity lighting) automatically when battery levels fall.
- ✓ Warn clinic staff and the NGO before power runs out.
- ✓ Log energy use so the NGO can size future systems properly.
- ✓ Be repairable by local technicians.

Constraints

- Must not void inverter or battery warranties.
- Network coverage is weak at most sites; SMS is the most reliable channel.
- Parts must be available in Zimbabwe or easy to import.

3 Deliverables

By forum week, matched teams are expected to bring:

- 01 A working controller or monitoring prototype.
- 02 Bench test results and a plan for a one-clinic pilot.
- 03 Cost per clinic for rolling out to all 12 sites.
- 04 A seven-minute pitch for forum week.

4 How teams are evaluated

Applications and final pitches are scored by the challenge owner and the ZBIF secretariat.

CRITERION	WHAT WE LOOK AT	WEIGHT
Fit to the problem	Does it solve the problem as the challenge owner describes it?	30%
Technical feasibility	Can the team build and run it with the resources available?	25%
Cost and scalability	Is it affordable to pilot, and to roll out if the pilot works?	20%
Team capability	Does the team have the skills and time to deliver?	15%
Local impact	Jobs, skills or value it keeps in Zimbabwe.	10%

Who can apply

- ✓ A registered ZBIF innovator account: innovators, consultancies, technologists, university teams or freelancers.
- ✓ At least one team member based in Zimbabwe.
- ✓ Able to attend forum week in Bulawayo on 27–28 April 2027 if shortlisted.
- ✓ IP ownership and pilot terms are agreed between your team and the challenge owner in the Deal Room.

5 Timeline

15 Sep 2026	Challenge posted
6 Nov 2026	Applications close
Within 3 weeks	Matching results sent to teams and the challenge owner
Until mid-April 2027	Build phase, with mentor and challenge-owner check-ins
27–28 Apr 2027	Live pitch and Deal Rooms at forum week, Bulawayo

6 Data and resources

Shared with matched teams after signing a simple data-use agreement.

System diagrams and battery specs per clinic	PDF drawings
Six months of inverter logs from two sites	CSV export
Field technician as point of contact	Weekly check-in

7 How to apply

- 01 Create a free innovator account at **zbif.bulconsultancy.com**, or sign in.
- 02 Open this challenge (ref ZB-104) and press **Apply**.
- 03 Tell us your team name, size and how you would solve the problem. Applications close on **6 Nov 2026**.

Questions about the brief can be asked from the challenge page. Answers are shared with every applicant.