



# Solar City Zimbabwe: Powering Progress

---

Solar City Zimbabwe: Powering Progress

## Table of Contents

Zimbabwe's Energy Crisis

Sunshine as a Resource

What Is Solar City Zimbabwe?

Highjoule's Smart Solutions

Harare's Solar Success Story

## Zimbabwe's Energy Crisis: Lights Out?

Imagine your business shutting down for 18 hours daily because the grid fails. That's reality for Zimbabwean industries battling erratic power. In 2023, the country faced 14-hour daily blackouts, costing manufacturers \$200 million monthly. Why? Aging infrastructure, drought-hit hydropower, and fuel shortages. Rural clinics can't refrigerate vaccines. Students study by candlelight. But wait, isn't this a nation blessed with 3,000 hours of annual sunshine?

## The Solar Goldmine Nobody's Mining

Zimbabwe's solar irradiance averages 5.5 kWh/m<sup>2</sup>/day - higher than Germany's 3.0, a global solar leader. Yet, solar energy Zimbabwe adoption lags at 4% of total capacity. Farmers still use diesel pumps. Urban rooftops sit empty. The paradox? Abundant sun but scarce innovation. "We've got the rays," says Energy Minister Soda Zhemu, "but lack the storage to make solar reliable after sunset."

## Solar City Zimbabwe: Urban Revolution

Enter Solar City Zimbabwe, a 2024 initiative to transform cities into 24/7 solar hubs. Harare's rooftops glittering with panels, parking lots doubling as solar carports, and microgrids powering townships. The plan's backbone? Battery systems storing daytime excess. "Without storage, solar's just a daytime band-aid," notes Highjoule's CTO, Dr. Lisa Ngoni. Her team's HPS 10k battery - deployed in Beitbridge last March - slashed diesel use by 89%.

## Case Study: Chitungwiza's Solar Surge

In May 2024, Highjoule installed Africa's first Modular MicroGrid in Chitungwiza. Results? Let's break it down:



# Solar City Zimbabwe: Powering Progress

---

Metric	Pre-Installation	Post-Installation
Daily Outages	9 hours	0
Energy Cost	\$0.42/kWh	\$0.18/kWh
CO2 Emissions	12 tons/day	1.3 tons/day

## Highjoule's Tech: Beyond Batteries

You know, storing solar isn't just about lithium packs. Highjoule's AI-driven Energy Orchestrator predicts usage patterns, balancing grids in real-time. During July's SADC summit, their system rerouted solar power from empty hotels to critical summit venues. Neat, right? Their residential PowerPod bundles panels + storage + smart monitoring - kind of like a solar Netflix subscription.

## When Solar Met Steel: ZISCO's Turnaround

Zimbabwe's largest steel mill was dying. Then Highjoule stepped in. By pairing 50MW solar farms with molten salt storage, ZISCO now runs 70% on sun. "We're saving \$3 million monthly," beams plant manager Tawanda Moyo. Rivals called it impossible. But hey, 30,000 revived jobs prove otherwise.

## The Road Ahead: Sun-Powered Cities

Harare aims for 40% solar by 2027. Challenges? Upfront costs, policy gaps, and... well, skepticism. But with Highjoule's lease-to-own models and World Bank backing, momentum's building. After all, why import diesel when you've got free photons raining down? As Highjoule's Harare chief likes to say: "We're not selling tech. We're selling light." And in Zimbabwe, light means hope, jobs, futures.

Web:

<https://www.gingerupherbs.co.za>