

N1  **ELECTRIC**

N2  **ELECTRIC**

N3  **ELECTRIC**

N4  **ELECTRIC**

N5  **ELECTRIC**

N6  **ELECTRIC**

N7  **ELECTRIC**

N8  **ELECTRIC**

N10  **ELECTRIC**

N11  **ELECTRIC**

N12  **ELECTRIC**

N14  **ELECTRIC**

N17  **ELECTRIC**

N18  **ELECTRIC**

ZERO CARBON LOGISTICS



CHARGE LOGISTICS

*Leading Africa's logistics decarbonisation
- starting in South Africa.*



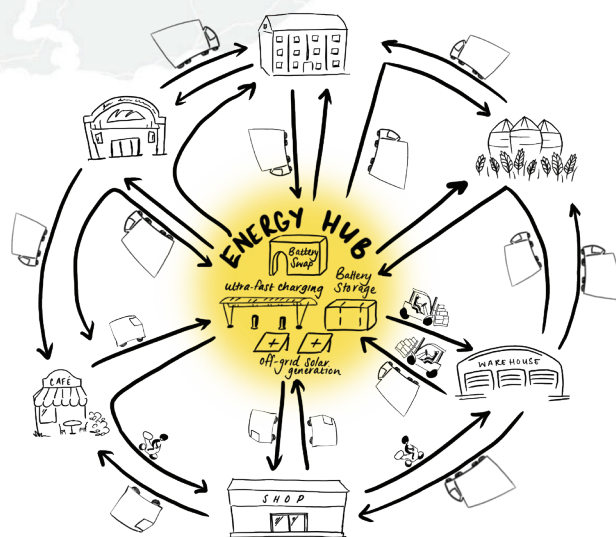
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www.zerocarbonlogistics.co.za



Regulatory and Legislative Driver

Carbon Border Adjustment Mechanism (CBAM)

An international mechanism that imposes carbon-based tariffs on imports and exports, ensuring overseas buyers pay for embedded emissions in products. Companies failing to decarbonise risk higher tariffs, reduced competitiveness, and restricted access to global markets.

Payment obligations commence January 2026

Carbon Tax

- A tax on carbon emissions, introduced in 2019, currently R236/tCO₂e, rising ~10% annually.
- The carbon fuel levy increased by 3c/litre to 14 c/litre for petrol and 17c/litre for diesel on 2 April 2025 as mandated by the Carbon Tax Act.
- Diesel and petrol fleets face rising costs.

Stricter regulation commences January 2026

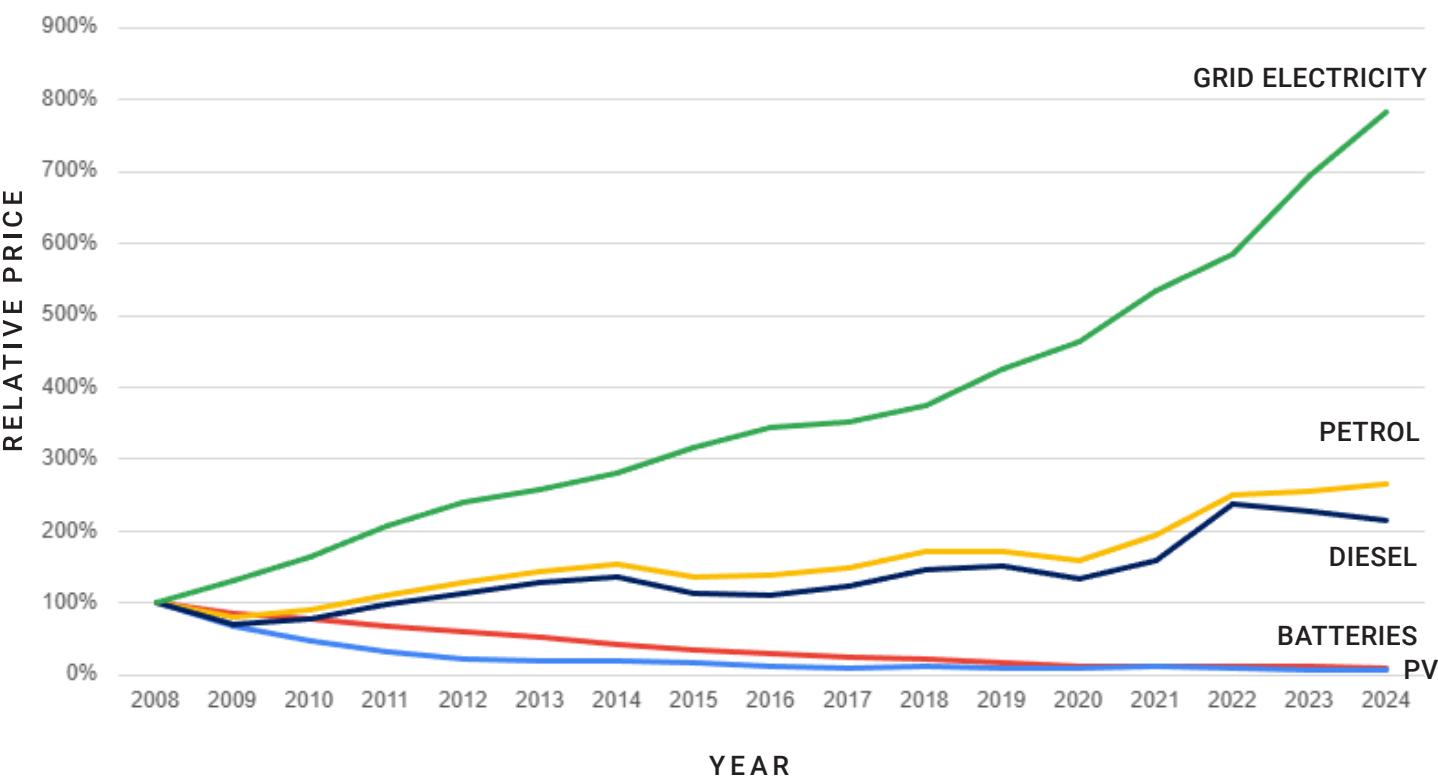
Climate Change Act

- Establishes a national carbon-budgeting framework. Sectoral emissions targets (SETs) and company-specific carbon budgets allocated to high-emission sectors.
- Mandatory mitigation plans and Measurement, Reporting and Verification (MRV) systems required.
- Transportation is a "listed activity" currently not subject to mandatory carbon budget reporting (it remains voluntary). Changes are expected by 2030.

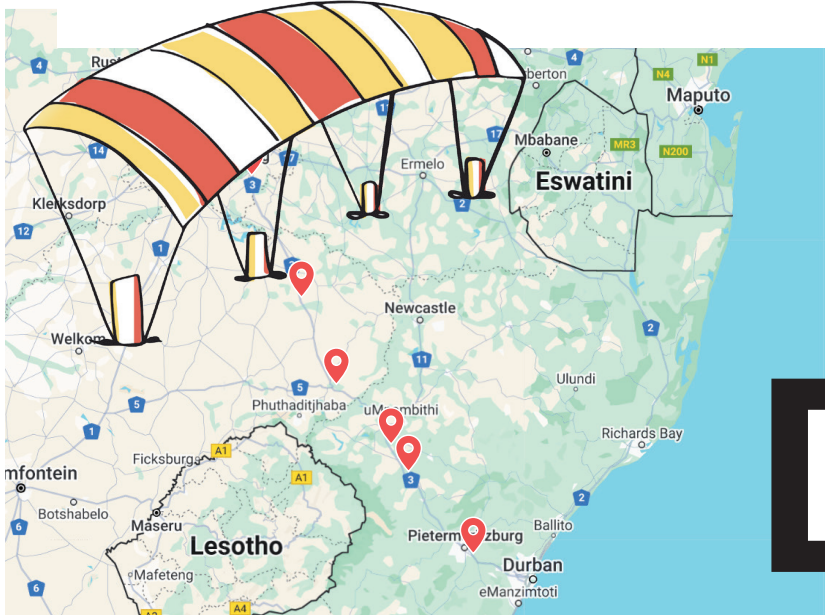
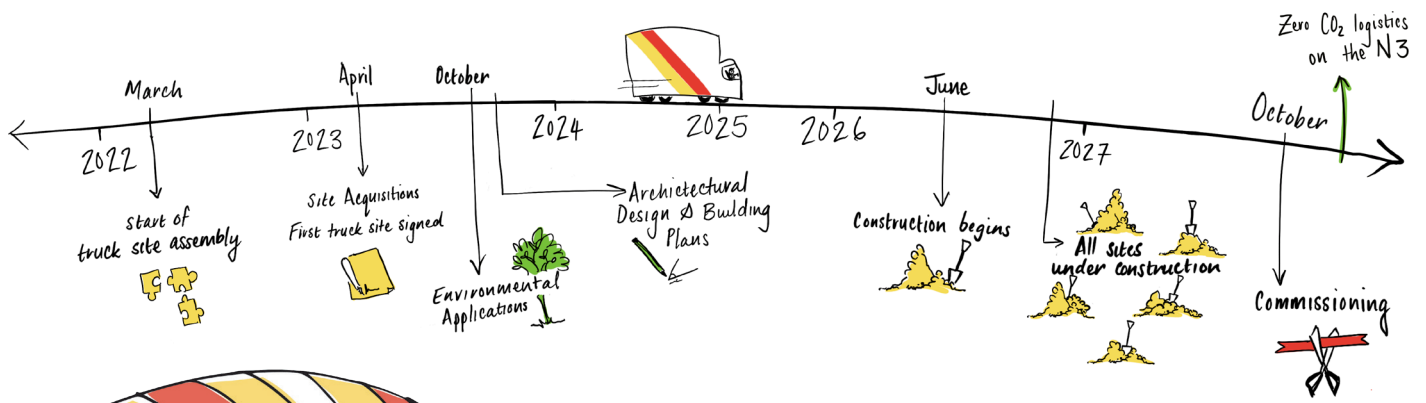
Commenced March 2025

Cost Benefit Driver

Grid electricity and fuel costs are on the rise, while renewable energy and battery costs continue to fall.



Zero Carbon Logistics electrifies fleets with off-grid renewable energy, cutting emissions across Scope 1, 2, and 3, turning regulatory risk into competitive advantage.



Zero Carbon Logistics is building the world's first solar-powered Electric Highway.



Average Daily Trucks on the N3 5 131

Energy Required for electric trucks 1,4 billion kWh/year

Litres of Fuel per Year 395 million litres

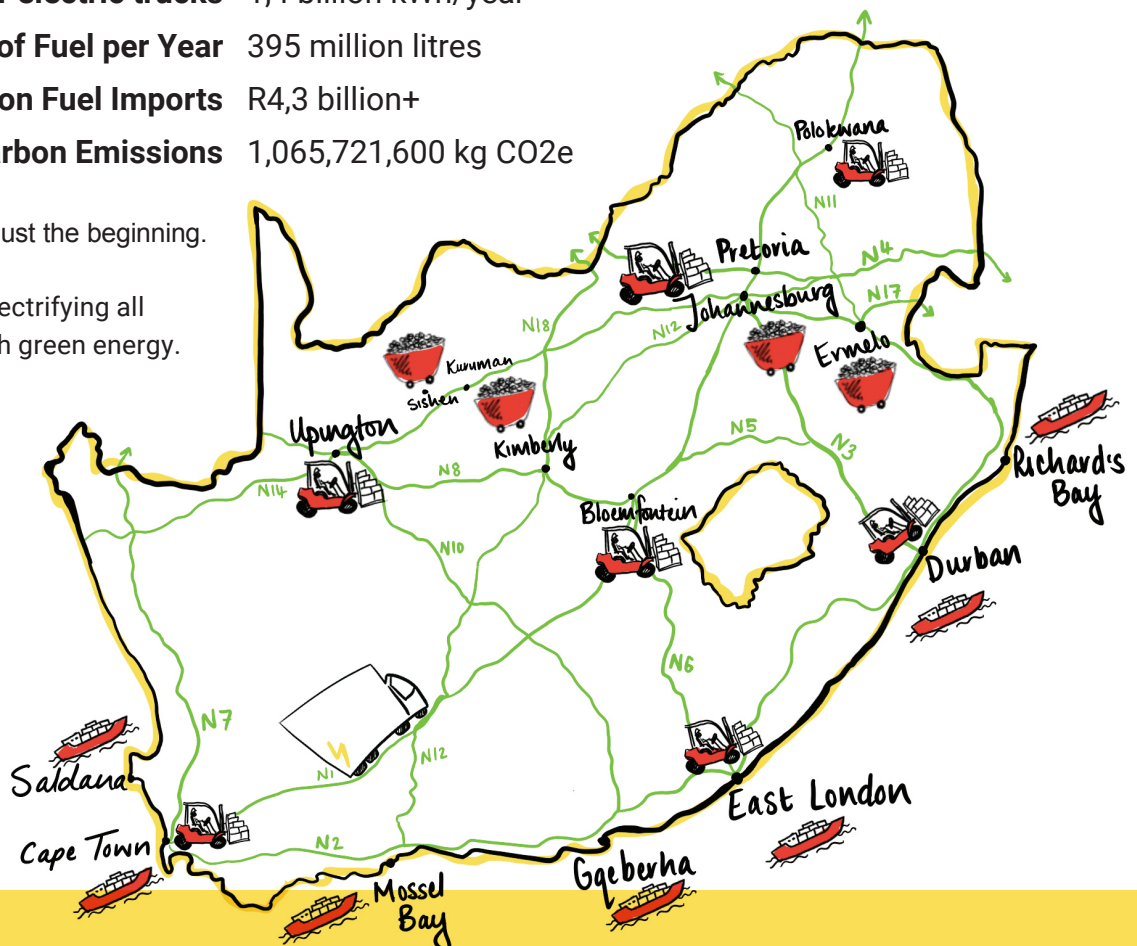
Amount Spent on Fuel Imports R4,3 billion+

Carbon Emissions 1,065,721,600 kg CO₂e

The N3 Electric Highway is just the beginning.

Zero Carbon Logistics is electrifying all national truck corridors with green energy.

South Africa will have a national network of charging stations that will connect all the major logistics hubs, ports, and industrial centres.



Off-grid electrification of mobility in Africa



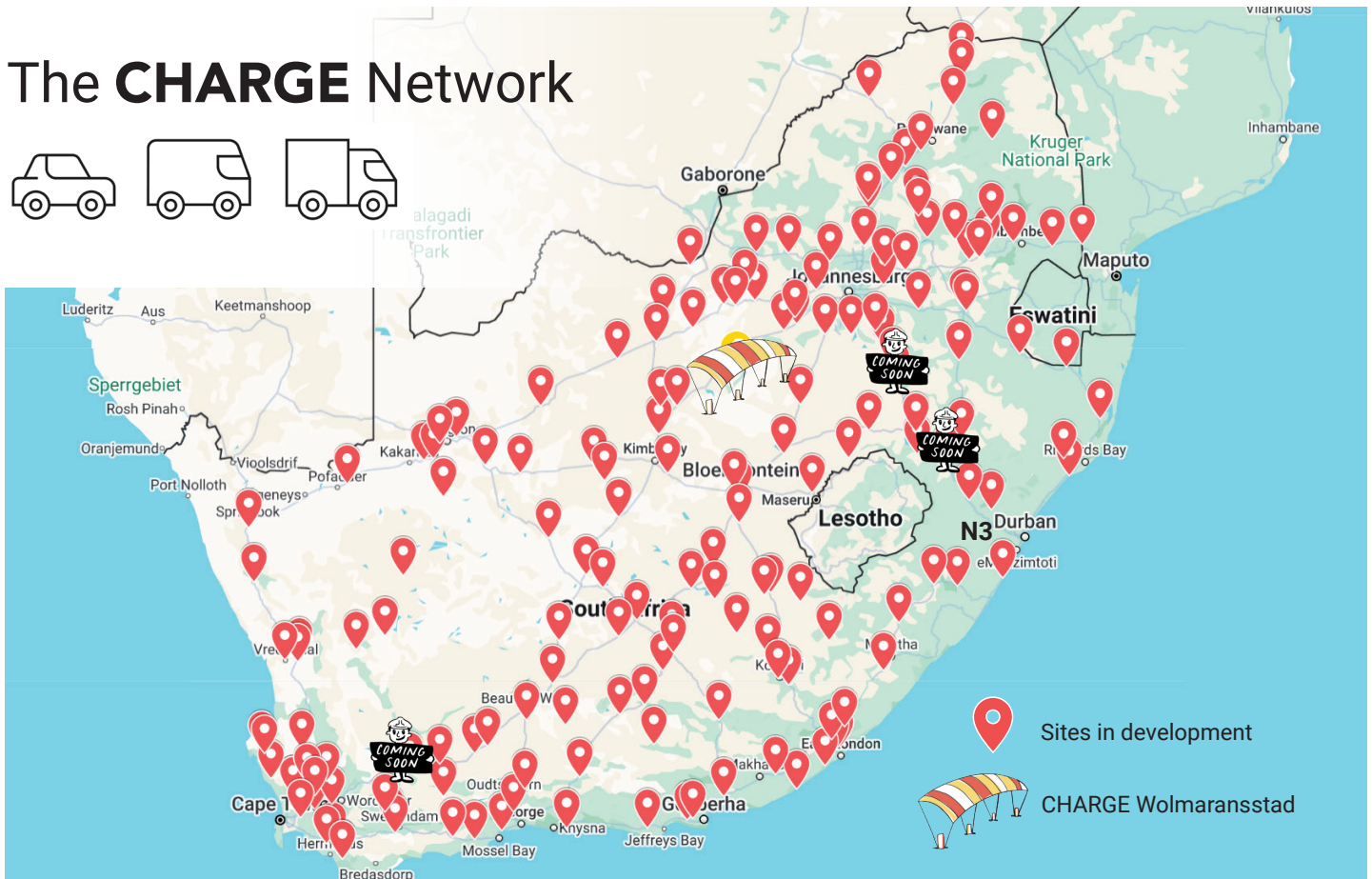
Zero Carbon Charge is rolling out 120 off-grid, fast, and green EV charging sites which will cater to electric passenger vehicles, commercial vehicles, and light trucks.

The CHARGE network will be accommodating the one-to-eight-ton lighter commercial traffic within the national network of 120 charging stations.

Our first station is open to the public.

CHARGE Wolmaransstad is located on the N12 between Klerksdorp and Wolmaransstad, at the Leeudoringstad turnoff. **It is operating to specification and on budget.**

The **CHARGE** Network



OFF-GRID. FAST. GREEN. NATIONAL.



ELECTRIC HIGHWAYS SOLUTION

Enabling long-haul electrification

Powering South Africa's busiest trucking routes with clean energy.

Off-take agreements

All developments are based on medium-term off-take agreements with creditable entities

Modular design

Standardised design that can be rapidly replicated.

Scalable infrastructure

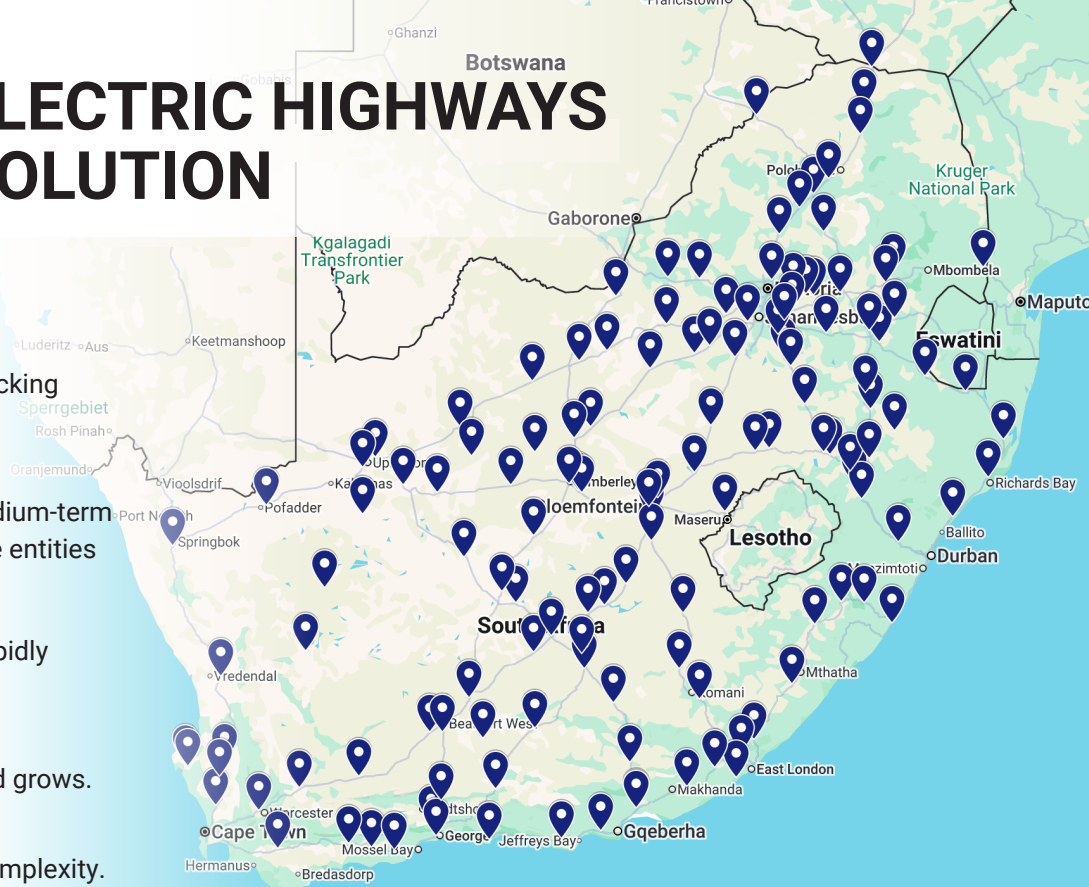
Easy to expand capacity as demand grows.

Efficient rollout

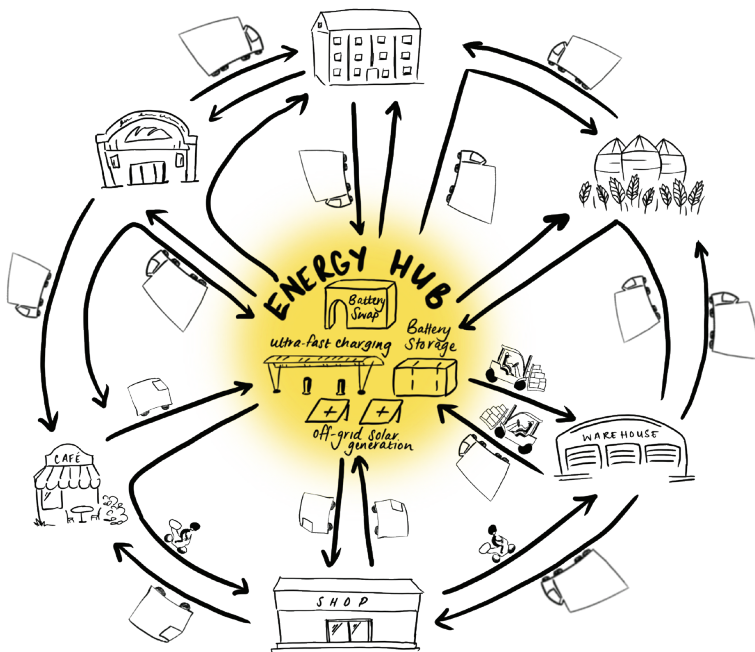
Copy-and-paste model, reducing complexity.

Route-by-route deployment

Starting with the N3, expanding across major freight corridors.



THE HUB & SPOKE SOLUTION



Off-take agreements

All developments are based on medium-term off-take agreements with creditable entities.

Fleet optimisation

Charge at hub, operate within radius, return to hub to recharge.

Dual solution

Solar hubs power both the business and fleet charging.

Energy certainty & reliability

Independence from grid instability and rising costs.

Cost certainty

CAP inflation protection, reliable green energy supply.

Off-balance sheet

PPAs & leases provide savings without capital outlay.

Compliance

Supports carbon tax obligations

"The shift to electric trucks offers a major opportunity for South Africa to meet its Green Transport Strategy goal of reducing transport-related CO2 emissions by 5% by 2050. We are extremely excited to be launching our ambitious Zero Carbon Logistic project, which feeds off the foundation created by Zero Carbon Charge."

Joubert Roux, Executive Chairman of Zero Carbon Charge & Logistics

Microgrids vs National grid

The national grid lacks the capacity and reliability to deliver the energy needed for large-scale EV charging.

Microgrids are self-contained, renewable-energy-powered systems combining solar generation and battery storage that operate independently of the national grid, ensuring reliable off-grid charging for electric trucks and fleets in our CHARGE Logistics solution.



Energy-as-a-Service

CHARGE Logistics operates in the emerging Energy-as-a-Service (EaaS) for the Electric Mobility sector - providing sustainable and reliable energy solutions that power the heavy-duty EV ecosystem.

We are an energy company in control of our value chain.

Back office and Mobile App

Our **CHARGE** Station Management System (CSMS) is a sophisticated yet user-friendly software platform that allows our operators to efficiently manage their network of solar-powered electric vehicle charging stations.

A centralised view of all charging stations enables our operators to monitor their status in real-time, track usage patterns, effectively handle revenue, and manage energy. An intuitive dashboard means quick and easy operation.

Our CSMS significantly enhances the efficiency of managing charging stations, contributing to a smoother, more profitable operation.



The CHARGE Mobile App

An intuitive app, designed to make your charging experience simple and enjoyable.

Charging Made Simple

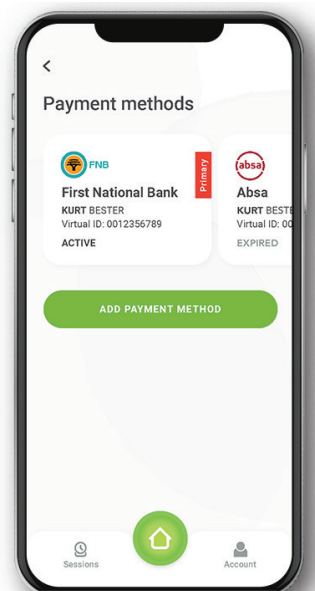
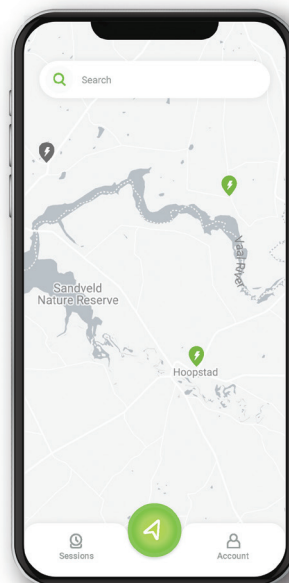
Locate available charging stations with ease.

Charging Status

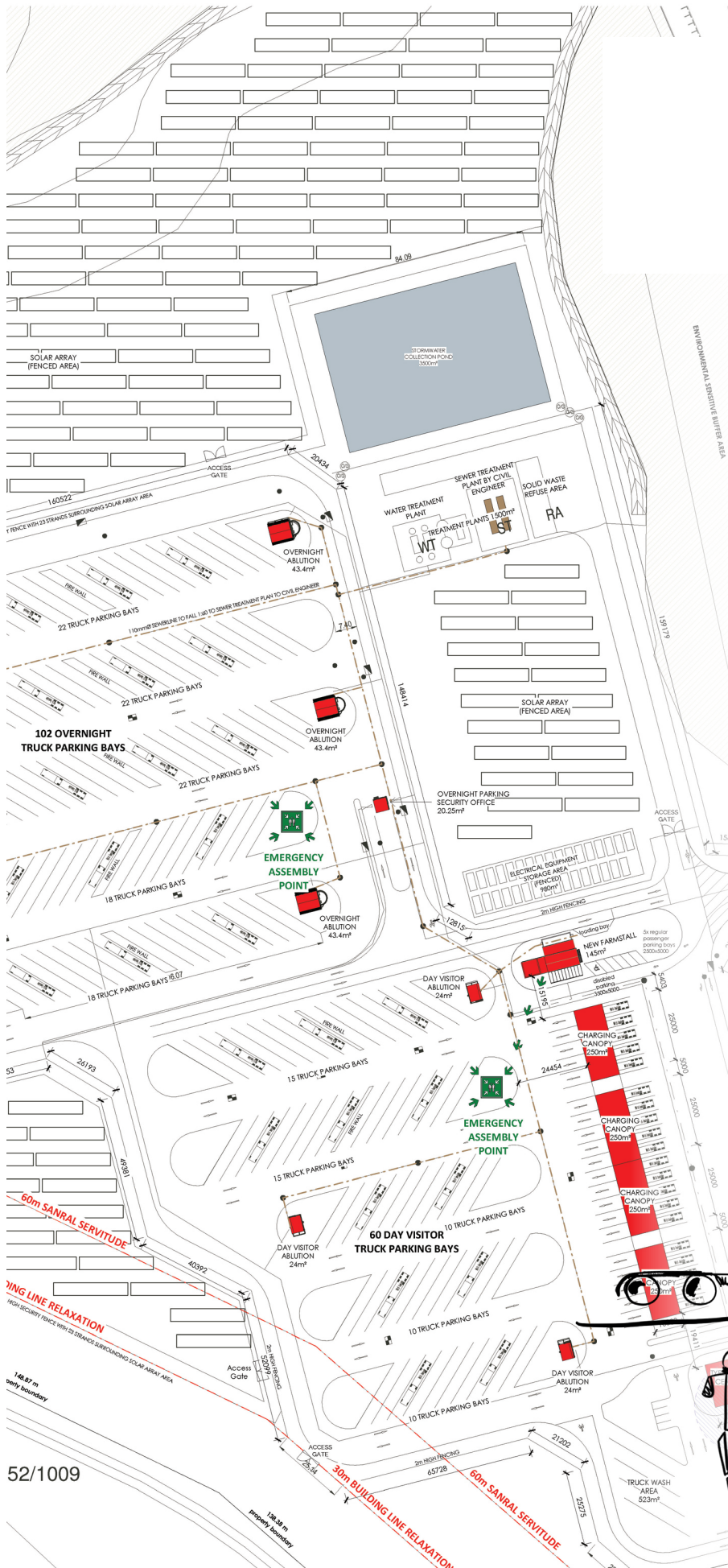
Monitor your EV's charging status on your phone.

Easy Payments

Seamless and secure transactions for a hassle-free charging experience.



Example Site Layout



Each site requires approximately 25 hectares of land, which includes an area for a solar array, day-time parking bays, overnight parking bays, charging bays, battery swapping bays, and a convenience store.

POWER SUPPLY

Solar PV

16-22 MWp per station

Battery Energy Storage

Nearly 50 MWh per station

Charging Capacity

First Phase Goal:

Charge up to 200 trucks per day

Charging Options

DC Charging: Fast charging

using direct current

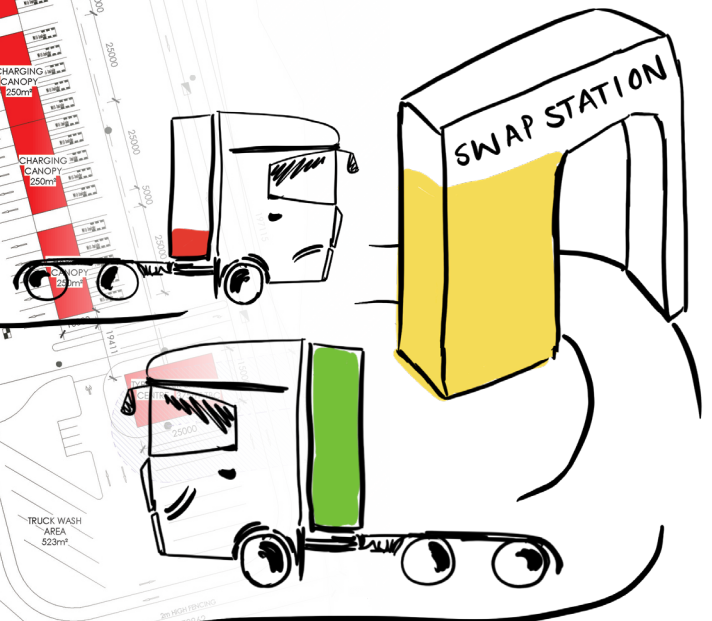
~ 1-hour charge time

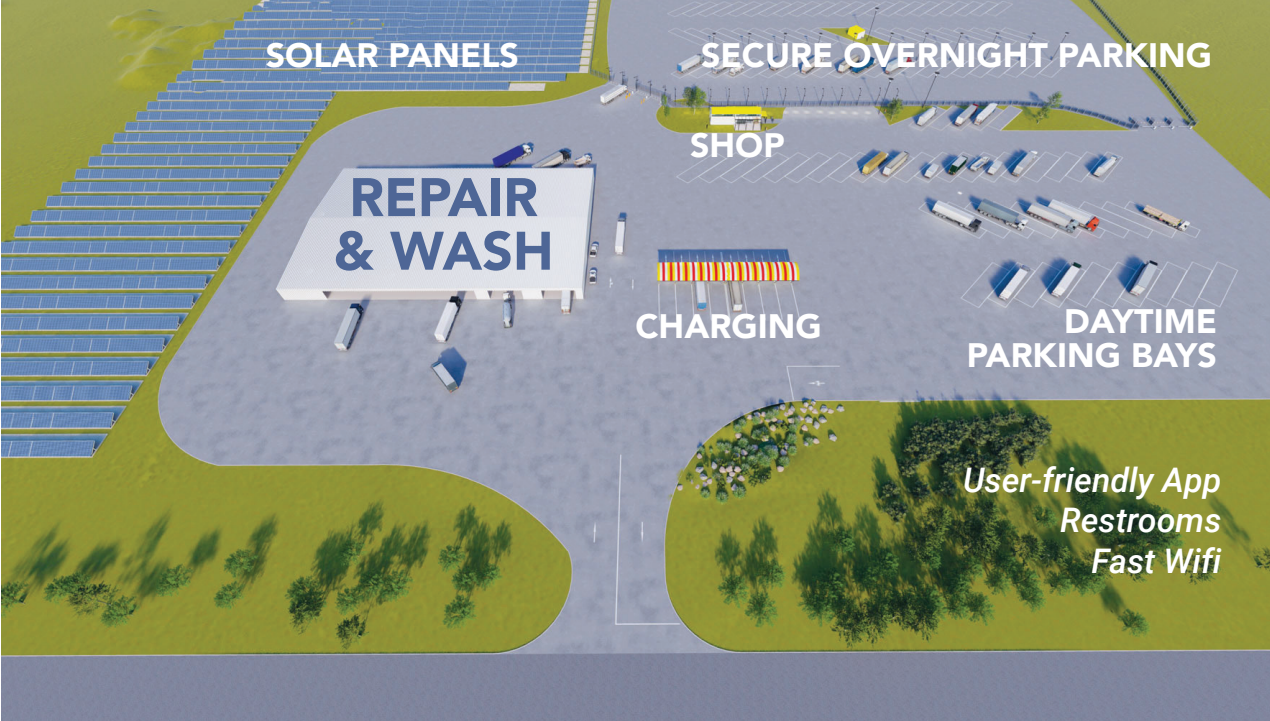
Battery Swapping:

Automated system replacing depleted batteries with fully

charged ones

~ 10 minutes





OFF-GRID & GREEN POWERED BY RENEWABLE ENERGY

- On-site power generation at each location.
- Localised, resilient energy supply.
- Harnesses South Africa's abundant renewable energy potential.
- Drives carbon reduction & climate compliance.

Micro-grid powered energy and EV charging solutions

- *Localisation of energy*
- *Energy resilience*
- *Price Competitive*
- *Future Proof*

ULTRA-FAST

Battery Swapping

- Proprietary swapping solutions reduce turnaround times, allowing trucks to exchange depleted batteries for fully charged ones in minutes.

Ultra-Fast Chargers

- High-capacity DC chargers tailored for heavy trucks minimise downtime and keep fleets moving.

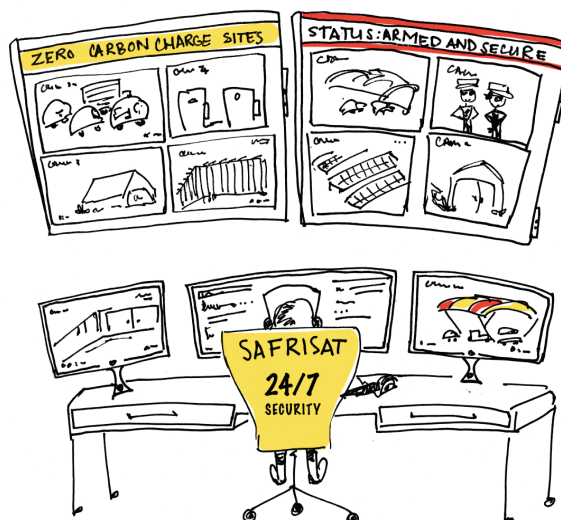
**24/7
PROTECTION
365**

CUSTOMER CENTRIC

- Convenience store
- Restrooms
- Repair and wash facilities
- Day-time truck parking
- Secured overnight truck parking

SECURITY

- Electric fencing
- Boundary fence
- 24/7 surveillance camera



Off grid electrification of mobility in Africa.