

# Zero Carbon Holdings

Zero Carbon Holdings is the "mother company"  
of Zero Carbon Charge, Zero Carbon Logistics, and CityCHARGE  
– focusing on developing the first national network of micro-grids  
that will provide off-grid, ultra-fast, solar powered EV charging in South Africa.



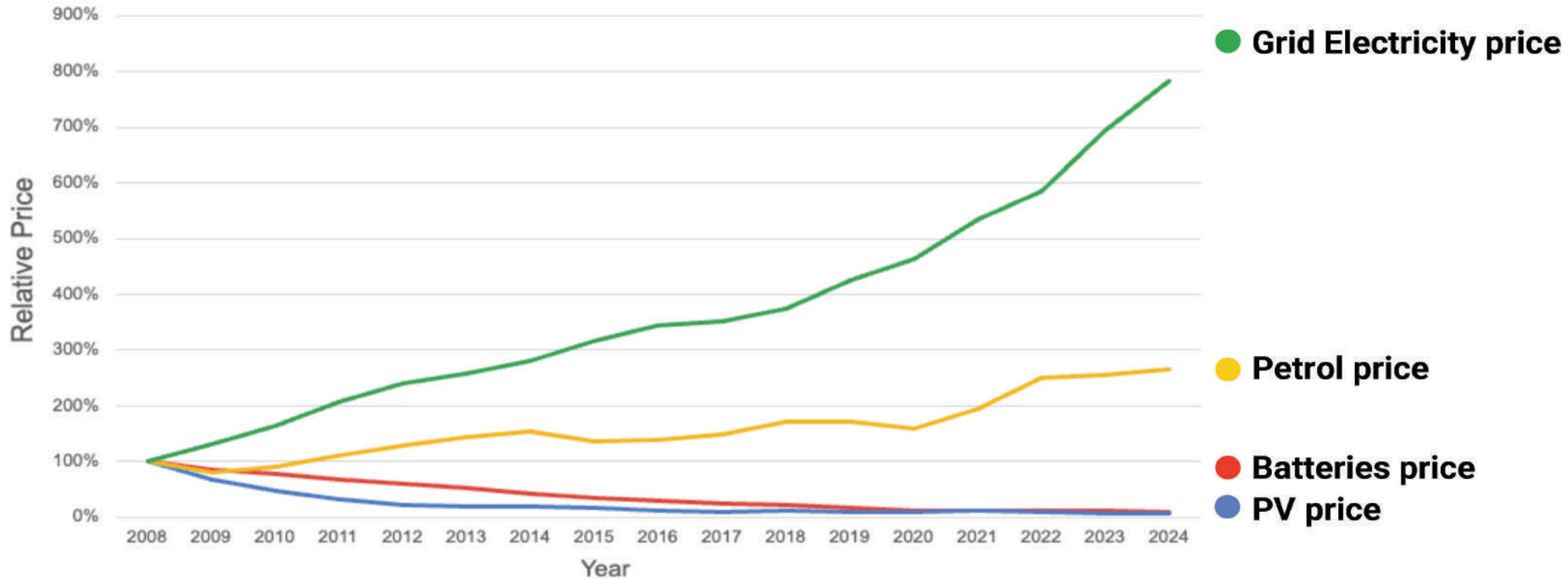
*Off-grid electrification of mobility in Africa.*

# The development required 4 components:



- 1** A willing landowner to lease land from
- 2** A hardware solution
- 3** A software solution
- 4** An energy management system

# Prices of Batteries, PV, Petrol and Grid Electricity



Period Discounted - Years	30	20	10
Grid - Miniflex	R15.18	R8.95	R5.41
Off Grid	R3.79	R3.58	R3.83
Grid - Battery	R13.59	R8.37	R5.52

# Investment opportunity



## INVESTMENT ASK

\$130 million

## DEVELOPMENT FOCUS

Development of a **national micro-grid EV charging network** powered by solar, scalable to **20 hectares** per site.



\$200 million

Deployment of **138 micro-grids** across all national freight corridors. **Up to 100 hectares** per site, powering electric trucks.



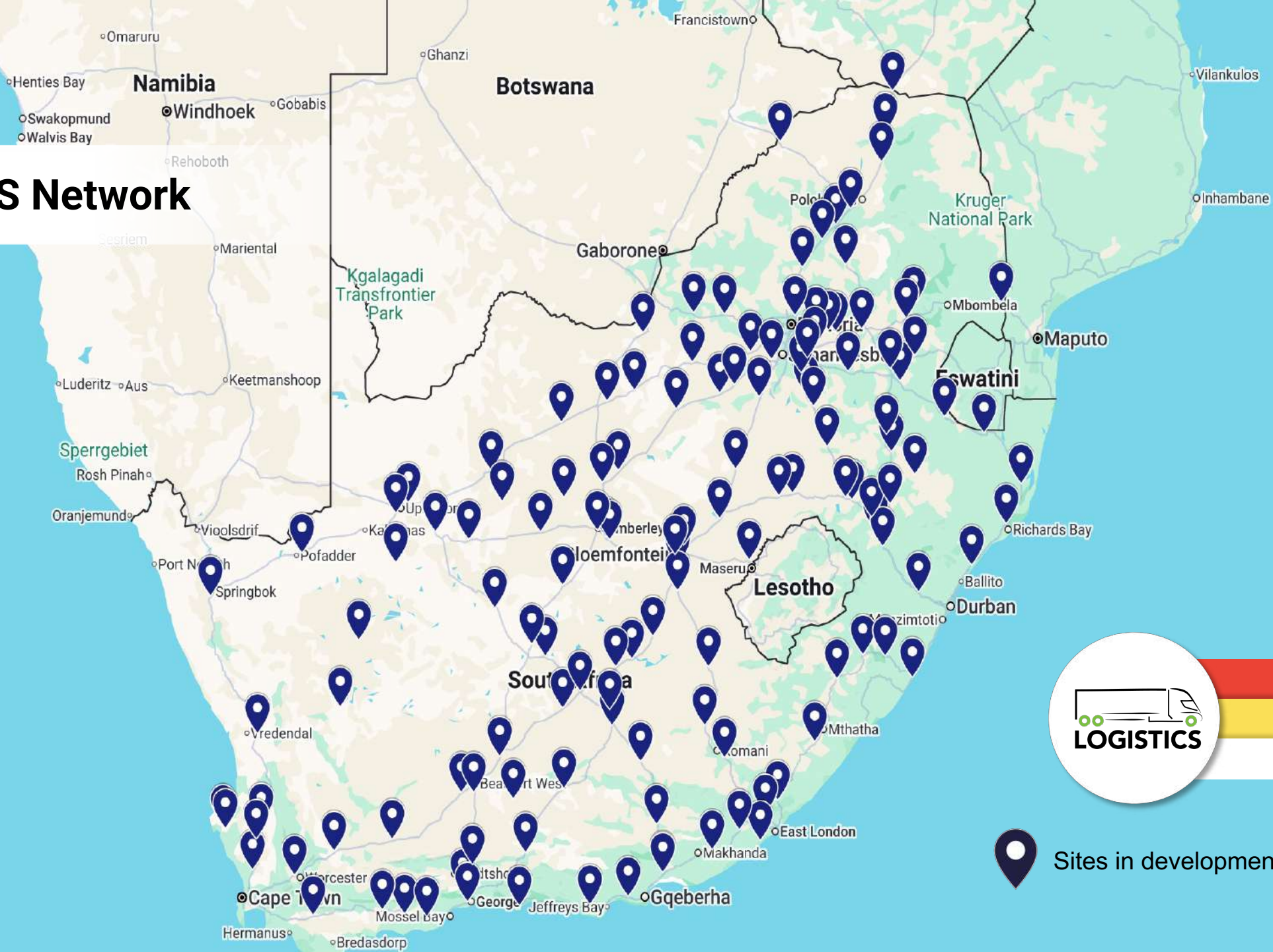
\$70 million

**Urban solar + EV charging hubs** designed for smart cities and green mobility, with integrated solar energy and battery storage

# CHARGE Network



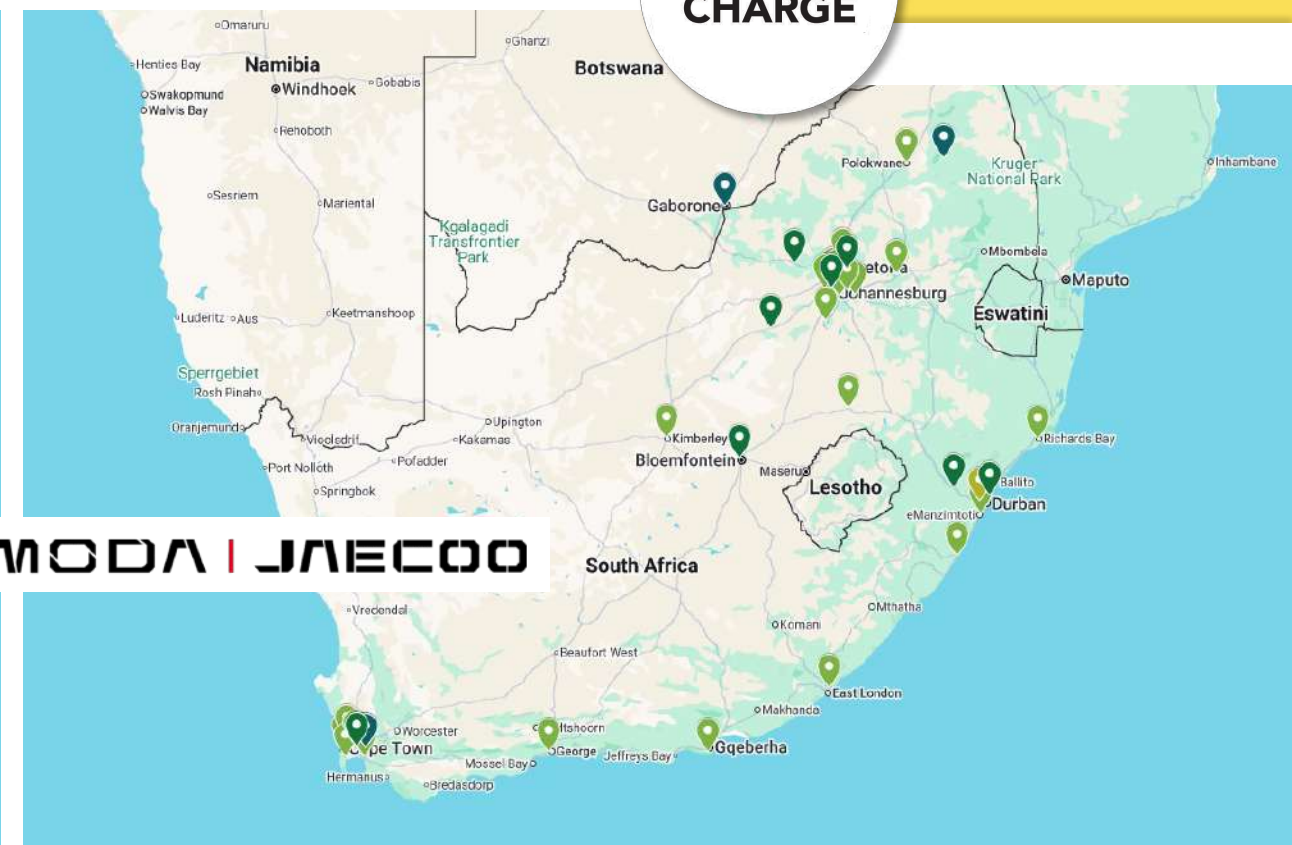
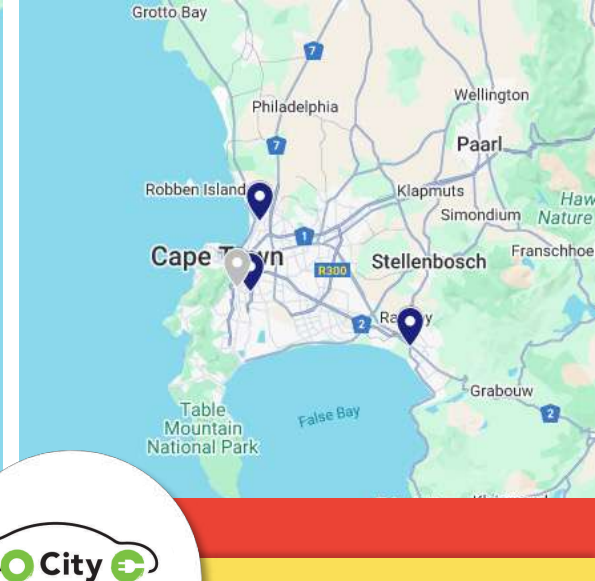
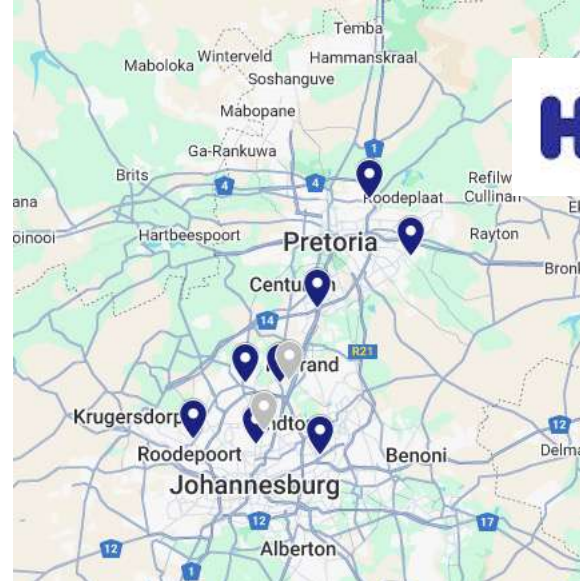
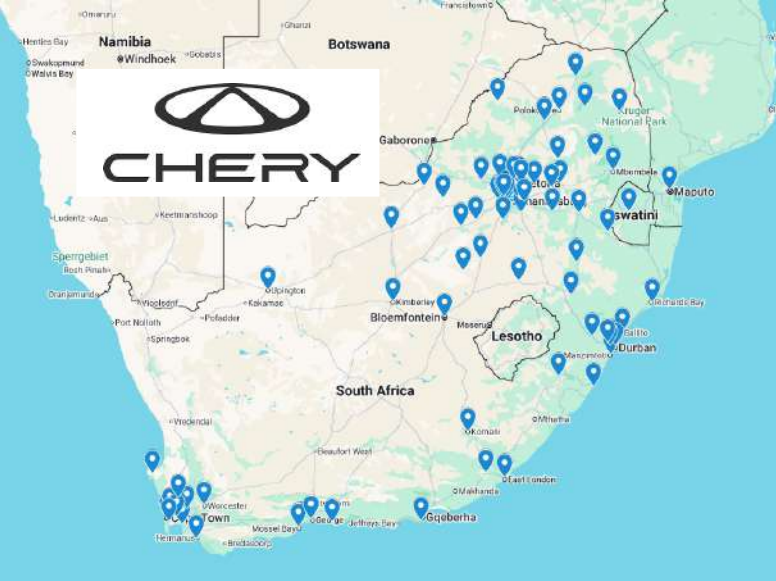
# LOGISTICS Network



 Sites in development

# CityCHARGE







## Our offerings at each CHARGE destination



On-site power  
generation system –  
renewable energy



Ultra-fast  
EV Charging Station



Farm stall,  
parking area  
and restroom facilities



### Site Layout Example:

Charging station and power generation system at CHARGE N12 Wolmaransstad



### Farm Stall

# CHARGE Wolmaransstad

**Our pilot site: Proof of concept that operates to specification and on budget.**



## LOCATION

On the N12 between Klerksdorp and Wolmaransstad, at Farm Flair Deli & Grillhouse  
CHARGE N12 Wolmaransstad is your convenient on-route charging destination for electric vehicles

© ZERO CARBON HOLDINGS



## 6 DC charge points (CCS2 connectors)

This ultra-fast, off-grid, solar-powered charging station is designed and built entirely with the needs of EV drivers in mind. Six ultra-fast chargers withstand ready to receive passenger and commercial EVs up to 8 tons.



## OPEN 24 HOURS

The station will be open all hours of the day and night, every day of the week, with 24/7 surveillance that ensures it is always safe and secure.

# CityCHARGE

Investment ask: \$5 million



**CityCHARGE** is offering a sustainable electric vehicle charging solution for high traffic urban areas through our solar-powered, EV charging stations at no upfront cost to the site. Identified sites include OEM dealerships (such as Chery, Omoda | Jaecoo, BYD and Volvo) and prime retail sites.

By using **CityCHARGE** infrastructure, dealerships and retail sites can meet the growing energy demand needed for eMobility, enjoy energy resilience, support the national grid, and contribute to energy security in South Africa.

# CityCHARGE



Solar panels

Service area  
for trucks

Convenience  
store

Charging bays

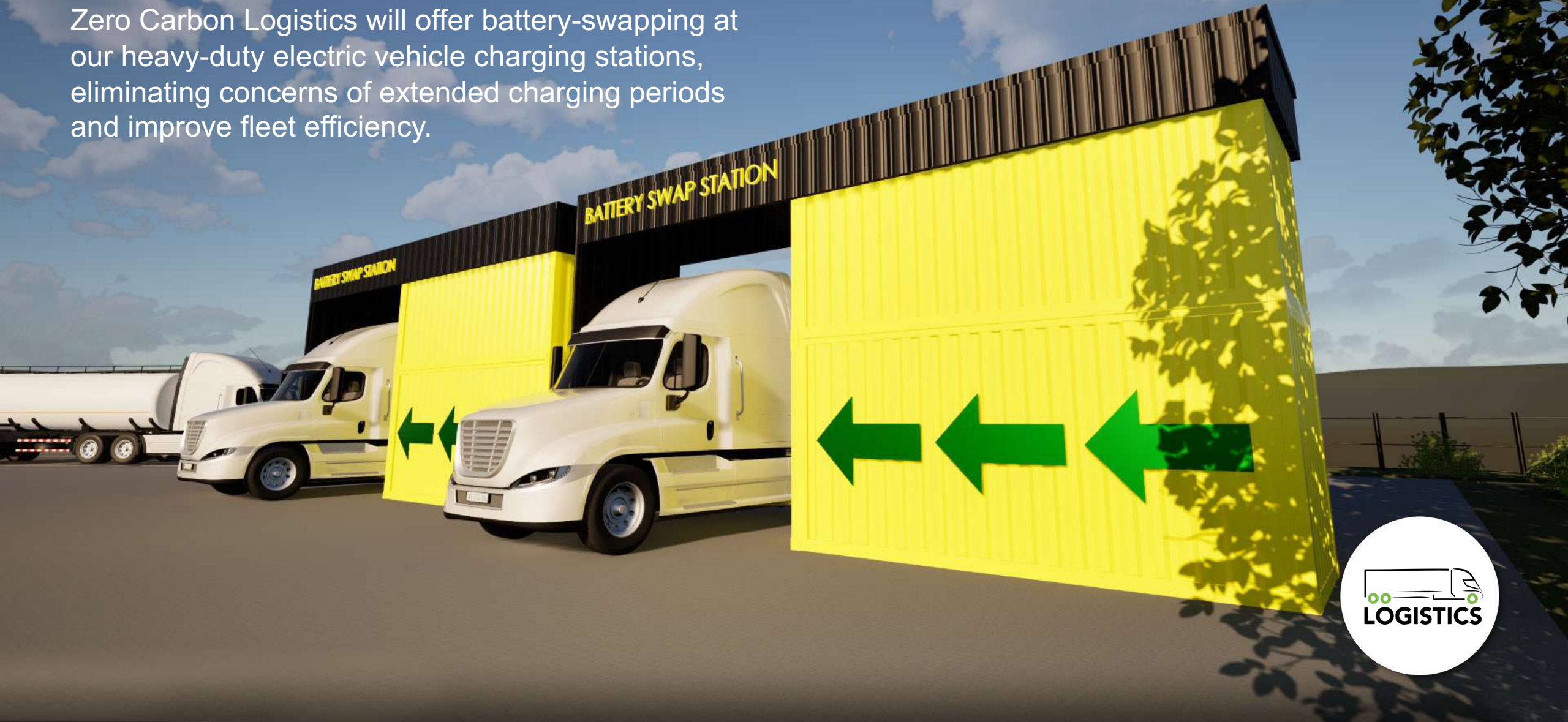
Secured overnight truck parking bays

Day-time truck parking bays



# BATTERY SWAPPING

Zero Carbon Logistics will offer battery-swapping at our heavy-duty electric vehicle charging stations, eliminating concerns of extended charging periods and improve fleet efficiency.



# HUB AND SPOKE TRUCK CHARGING SOLUTION



The "Hub & Spoke Solution for electric trucks encourages industries and businesses who use trucks as a means of operations to start migrating to electric trucks with travel ranges of 100km, while being able to charge at their "hub", depot, or plant.

This is applicable to South African mines, farms, processing factories, as well as delivery and courier services.

We provide solar, battery storage, a battery swapping station, and DC chargers on site to encourage electric truck uptake while earning revenue from charging as well as generating and selling solar power.



# Carbon Tax Reshaping SA Freight

The EU's Carbon Border Adjustment Mechanism (CBAM) will come into effect in 2026, penalising carbon-intensive freight.

- Automotive exports face major losses if South Africa doesn't transition from ICE to electric
- OEMs like Daimler and Scania are going 100% zero-emission by 2040
- Without **infrastructure** for Zero Emission Trucks (ZETs), South African logistics will be left behind

## THE OPPORTUNITY

- South Africa has **mineral wealth**, a strong **logistics sector**, and growing **renewables potential**
- **Decarbonising scope 3 emissions** can unlock **global green capital**
- Government plans to shift **190,000 trucks** to ZETs (NDC target)

**South Africa needs the infrastructure to comply with global regulations and unlock investment and green trade opportunities.**

**89%**

**of South Africa's Freight moves by road**

**63%**

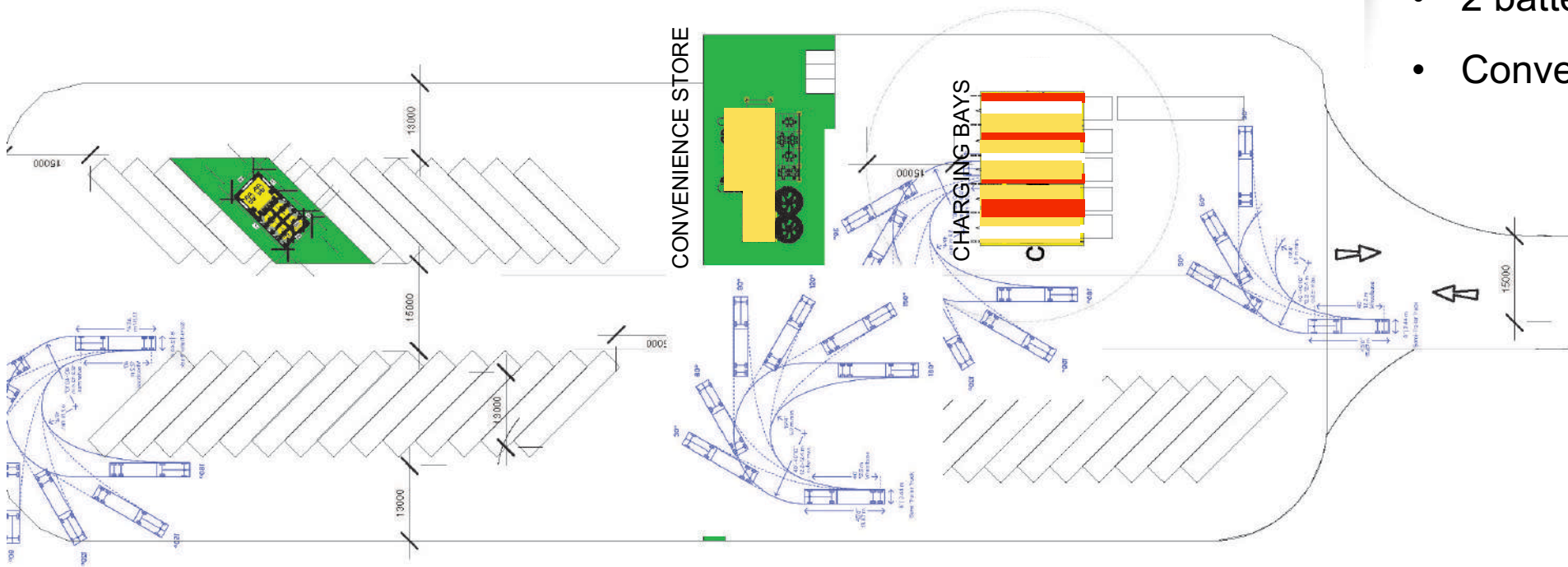
**of transport emissions come from trucks**

*Source: PwC and WEF*

# Truck charging station SITE LAYOUT

## PHASE 1

- 1.8 hectare truck site
- 10 hectare PV area
- 25 overnight parking bays
- 13 day-time parking bays
- 5 charging bays
- 2 battery swapping bays
- Convenience store



# ELECTRIC VEHICLES ARE HERE

As of the first half of 2025, South Africa has got a growing uptake of EVs as the charging infrastructure develops across the country

Figure 2 displays the total NEV sales from 2020 to the first half of 2025.

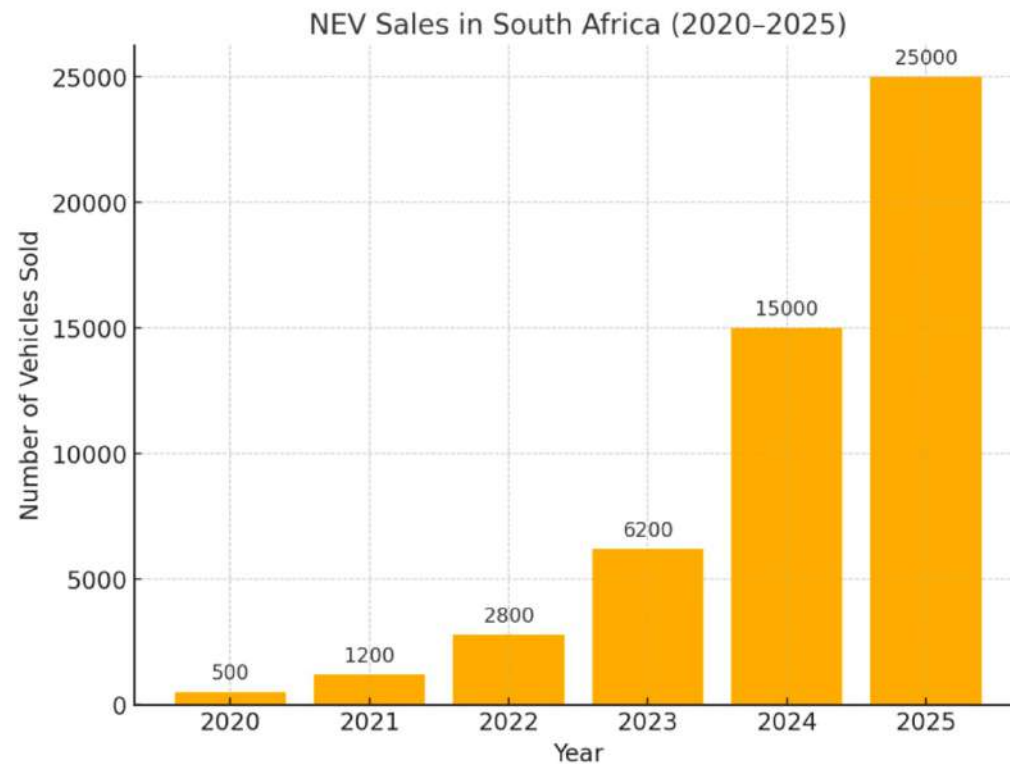


Figure 2: Total NEV sales 2020 – 1<sup>st</sup> half of 2025

(Source: NAAMSA)

**M&G**

**CHINESE CAR SALES CONTINUE TO RISE IN SA AND THEIR NEW-ENERGY VEHICLES COULD BE A GAME CHANGER**

Chery and Haval are the top sellers while Omoda and Jaecoo passed 1000 new vehicles sold in June.

**TECHCENTRAL**

**BYD reportedly launching sub-R400 000 electric car in South Africa**

At an expected launch price of less than R400 000, the BYD Atto 1 will be one of South Africa's most affordable EVs.

New Energy Vehicles 4 August 2025

**SA keenly climbing green mobility ladder**

The demand for new energy vehicles (NEVs) keep growing in South Africa with a steep increase in greener mobility during the last two years.

# SUPPORT

We have signed MOUs and received Letters of Support from various entities



destea

Department of  
Economic, Small Business Development,  
Tourism and Environmental Affairs  
FREE STATE PROVINCE



Automotive Industry Development Centre SOC Ltd



Province of the  
**Northern Cape**  
REPUBLIC OF SOUTH AFRICA



ROOTED IN THE FUTURE



Northern Cape Economic Development  
Trade and Investment Promotion Agency



public works  
& infrastructure

Department:  
Public Works and Infrastructure  
REPUBLIC OF SOUTH AFRICA



transport

Department:  
Transport  
REPUBLIC OF SOUTH AFRICA



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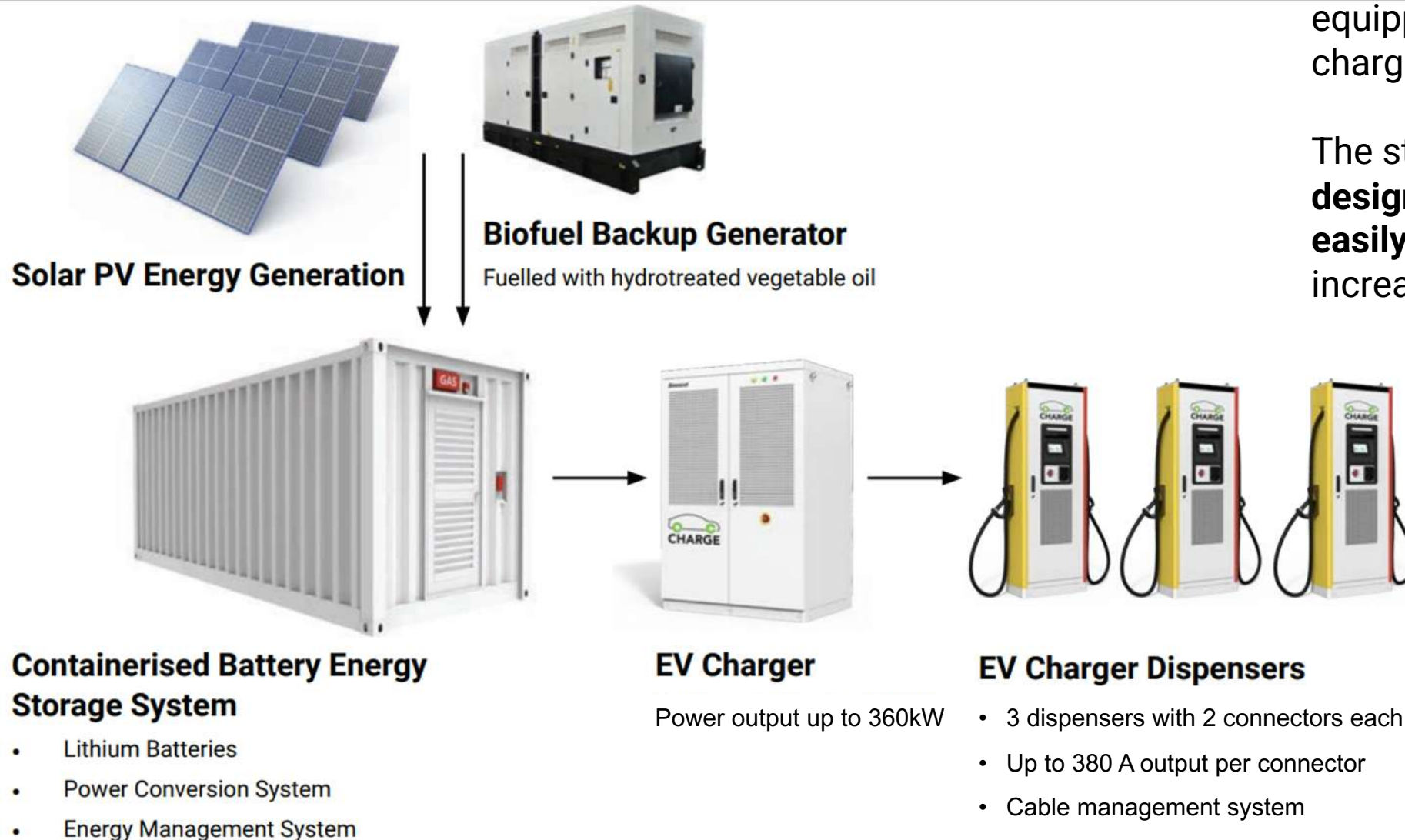
Department:  
Trade, Industry and Competition  
REPUBLIC OF SOUTH AFRICA



agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

# HARDWARE SOLUTION



All our EV charging stations will be equipped with **six DC** charging points.

The stations are **designed to scale up easily** to meet increasing demand.



# Backed by Proprietary Technology: e-Mobility UI

Charging Station Management System (CSMS):

A software platform that helps businesses **manage their network** of EV charging stations.

## The CHARGE e-Mobility platform

### Role of CSMSs

- Load Balancing
- Energy Management
- Centralised view of all charging stations

### Operators can:

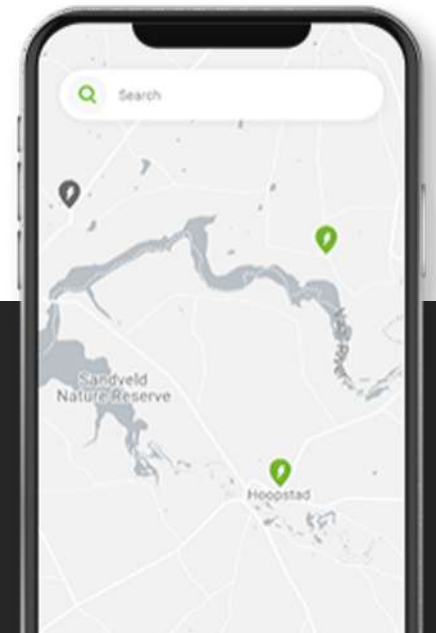
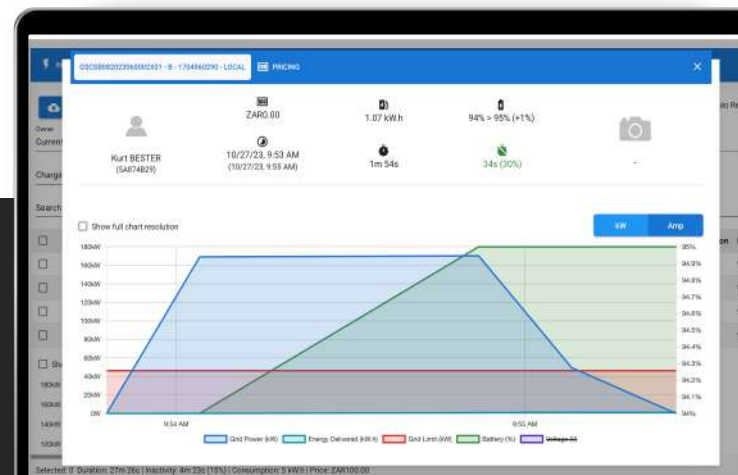
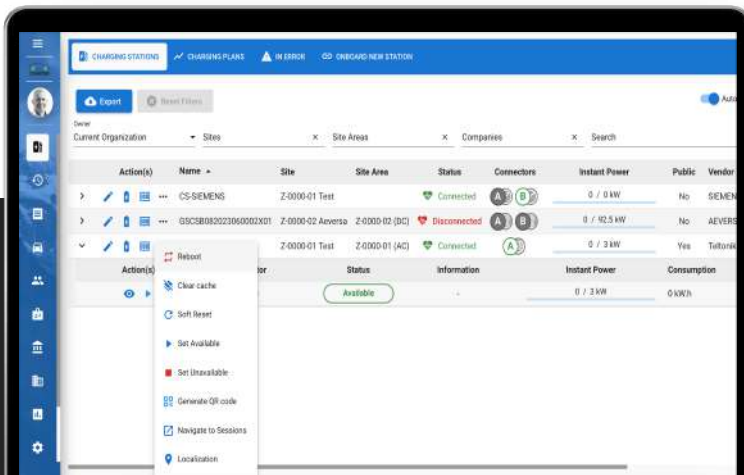
- Monitor their status
- Track usage
- Manage revenue
- Data mining
- Use AI to generate insights

### Extend this to:

- A mobile app
- An ELT (Extract Load Transform) toolset

### Enhances:

- Customer experience
- Integration with other systems e.g. finance



# THE BIGGEST RENEWABLE ENERGY PLAY IN THE COUNTRY

CHARGE is creating energy independence for South Africa.



Zero Carbon Charge (CHARGE),  
South Africa's first company  
to pioneer a national network of  
off-grid, solar-powered ultra-fast  
electric vehicle charging stations,  
is proud to announce a  
R100 million equity investment  
from the Development Bank of  
Southern Africa (DBSA).



**R100 Million**  
Investment from DBSA



# Zero Carbon Holdings (Pty) Ltd



## CONTACT

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