

CHARGE

ZERO CARBON CHARGE

FAST. GREEN. NATIONAL.

We strive to lead the transition to zero carbon transport in South Africa
ensuring a greener future for all.

#justtransition

***‘Consumer interest in electric vehicles
has hit a global tipping point,
with more than half of car buyers
saying they want their next car to be an EV.’***

RESEARCH FROM ERNST & YOUNG | www.axios.com

#EVrevolution #GetReadySA #ChargingInfrastructure #GreenEconomy

THE CHALLENGE

The current rate of CO₂e emissions into the atmosphere is unsustainable. If the global community wants to avoid future climate disaster and devastation, it must act now to cut greenhouse gases to net zero by 2050. This global goal, as set at COP26 entails reducing the current 8 gigatons of transport emissions to 2 gigatons by 2050. It can only be achieved by rapid transition from ICE vehicles to Electric Vehicles.

Global adoption of electric vehicles (EVs) is climbing

Global EV market penetration for passenger vehicles has already surged past 13% of total new car sales. By 2050, it is imperative that the world runs entirely on a fleet of zero-emissions cars, trucks, bikes and buses.



IN SOUTH AFRICA

**large-scale adoption of EVs
faces two main challenges:**

1. Limited charging infrastructure

Evidence shows that when a reliable charging infrastructure is established, EV sales goes up.

2. SA's electricity grid

The supply of electricity in South Africa is severely constrained. The demand for electricity far outstrips supply and the situation is deteriorating.

THE CHALLENGE

Eskom supplies the bulk of SA's electricity.

Eskom relies overwhelmingly on fossil fuels to produce electricity, making it responsible for 40% of South Africa's CO₂e emissions. Using coal-powered electricity to charge our EVs, will achieve zero reduction in greenhouse gas emissions. Green energy is the only solution.

Eskom carbon emissions

Each kWh unit of power produced by Eskom emits 1040g CO₂e.

Diesel & Petrol cars

In South Africa, on average, a diesel car emits 8.6 metric tons CO₂e per year and a petrol car 4.3 metric tons.

OVER 25 000 km



DIESEL

8.6 MT CO₂e



PETROL

4.4 MT CO₂e



EV

CHARGED WITH
ESKOM POWER

6.5 MT CO₂e



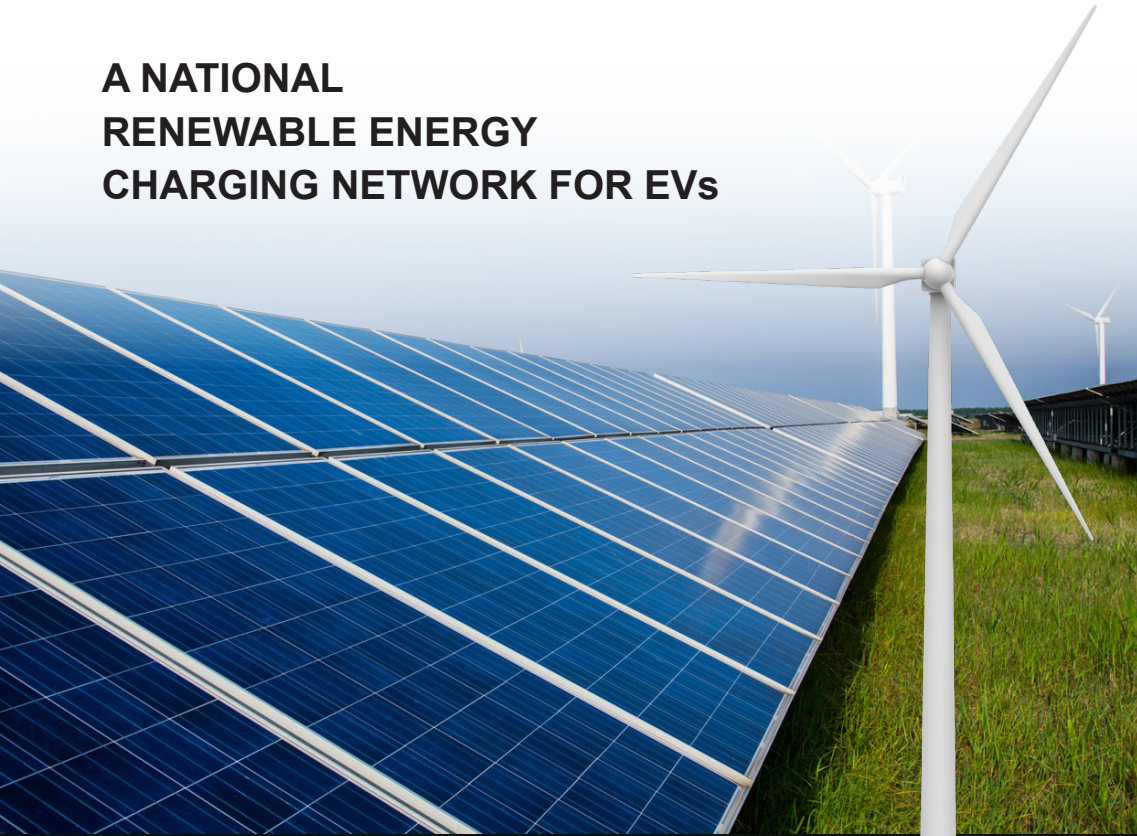
EV

CHARGED WITH
GREEN POWERED
CHARGERS

0 MT CO₂e

THE SOLUTION

**A NATIONAL
RENEWABLE ENERGY
CHARGING NETWORK FOR EVs**



To make electro-mobility truly sustainable, it is essential that every part of the value chain is considered.

OUR IMPACT



↓ **CO2e**

1,2 million
2032

7,8 million
TONS



SA grid

The Zero Carbon Charge network will enable South African motor manufacturers to roll out EVs aggressively, and achieve European level penetration

Each EV recharged with our green chargers will save on average 6.5 tons of CO2e per year

We project that by 2032 there will be 1,2 million EVs on SA roads

That would directly save 7,8 million tons of CO2e per year

We aim to set the standard for green energy charging

Effective and efficient contribution to resolving South Africa's power crisis

PLANNED NETWORK (PHASE 1)

SOUTH AFRICA

- National network
- All N and R routes
- 150 km intervals
- Green powered
- Ultra-fast chargers (250kW)

PROVIDING MORE FREEDOM TO EV DRIVERS

A cheaper, sustainable way to travel

TARGETS

2022

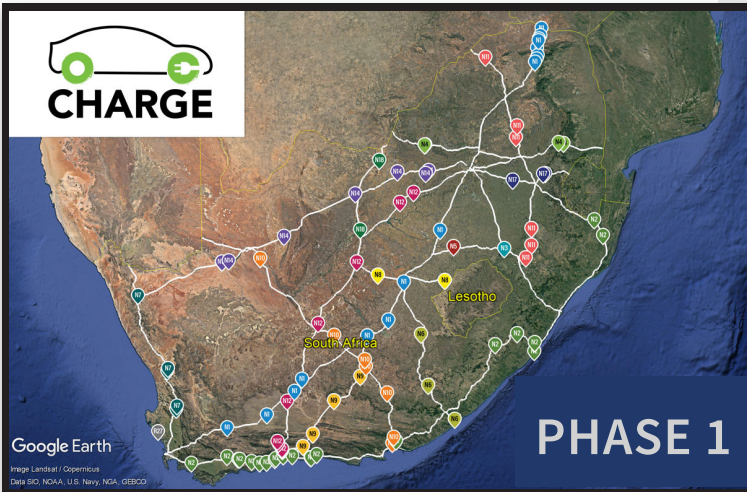
First charging stations to be built in 2022.

2023

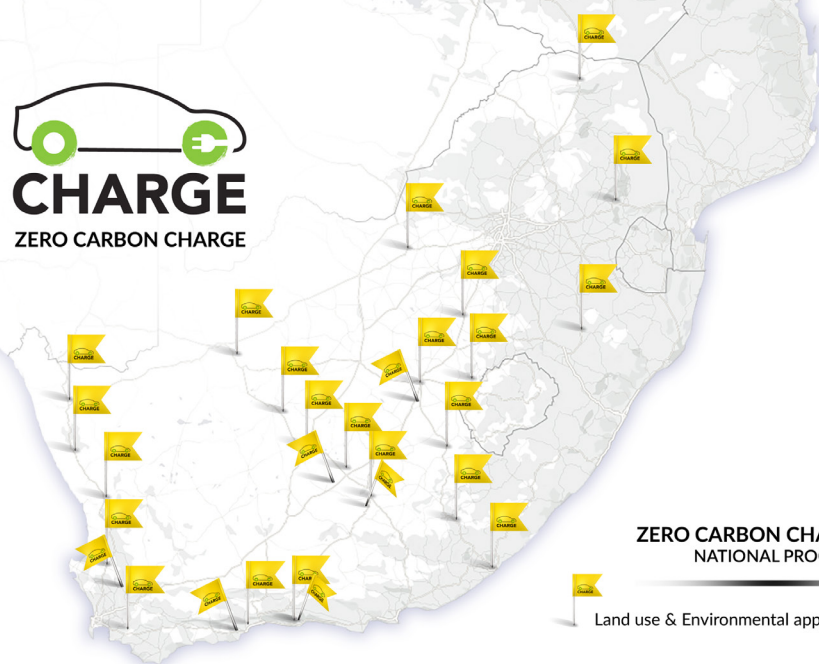
Roll out the bulk of the remaining 120 charging locations

FUTURE

Extend the network into the rest of Africa, starting with Namibia, Botswana and Kenya



We believe that Zero Carbon Charge will be a visible signal and dynamic catalyst driving the shift to a low carbon economy.



ZERO CARBON CHARGE SITES NATIONAL PROGRESS

Land use & Environmental applications in process

We are on track to start construction on our first station at Dassiesfontein, near Caledon. Concurrently we have environmental assessments in process in all 9 provinces.

After identifying a potential site we do the necessary assessments to protect the interests of the communities and the environment. An initial environmental study is made by EnviroAfrica to establish feasibility. An environmental application is submitted for approval. Architect, Deon Wessels design and submits basic building and site plans. Town-planning applications are submitted to the appropriate town-planning office by CK Rumboll and partners. Once all approvals are in place we can proceed with construction.



DASSIESFONTEIN FARM STALL ON THE N2
FIRST CHARGING STATION
DEVELOPMENT IN PROGRESS

NETWORK PARTNERS

Our network partners consist of local entrepreneurs who see an opportunity to expand their business with a Zero Carbon Charging Station and gain a strategic position at the start of this massive transition to EVs.

“This is truly a win-win situation as the presence of charging stations at farm stalls also increases traffic to these establishments and generates income for entrepreneurs in remote areas.” Sessie Fick, owner, Dassiesfontein Farmstall



FARM STALL & CHARGING STATION
DESIGN IN PROGRESS



CHARGE

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CONTACT

info@zerocc.co.za

082 8041892

www.zerocarboncharge.co.za

