



**Delivering Ultra-fast charging Electric Forecourts®  
for fleet vehicles – the future business case**

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***Sustainable Transport eVent 19/06/19***



# Presentation Overview

1. The Challenge
2. Where to Charge?
3. Fleet Ready Charging Infrastructure
4. Site Selection and Network Development
5. The Electric Forecourt<sup>®</sup> Layout and Features
6. Summary



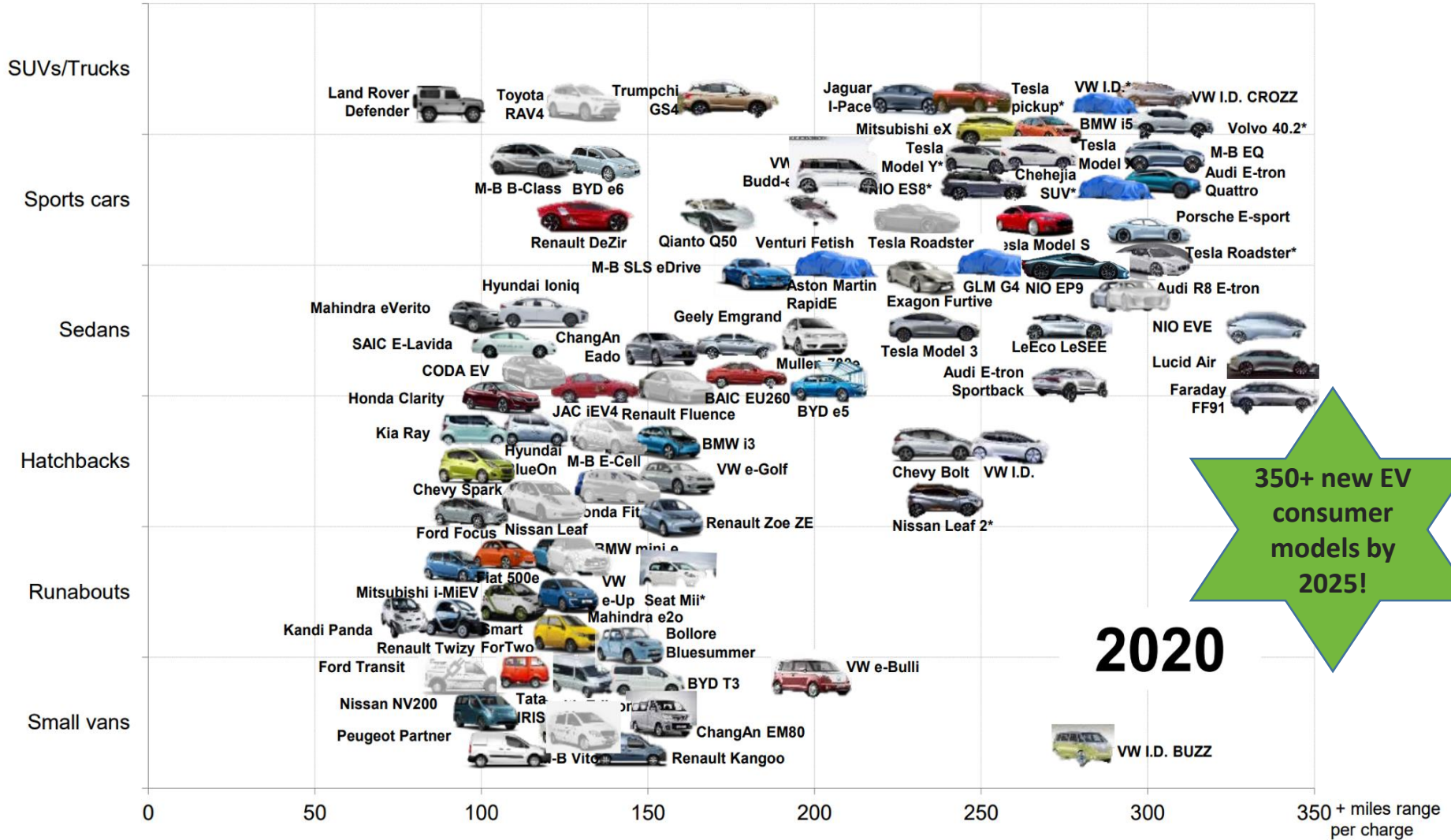
# The Challenge

Today's UK public charging infrastructure needs to be rapidly transformed ready for the coming enormous wave of electric vehicles including cars, taxis, vans and trucks over the next 5 years.

For Fleets and Commercial drivers to take the plunge and fully embrace electric vehicles BOTH the availability of vehicles with the required performance characteristics AND reliable, dependable, convenient, fast and economic charging infrastructure are ESSENTIAL.

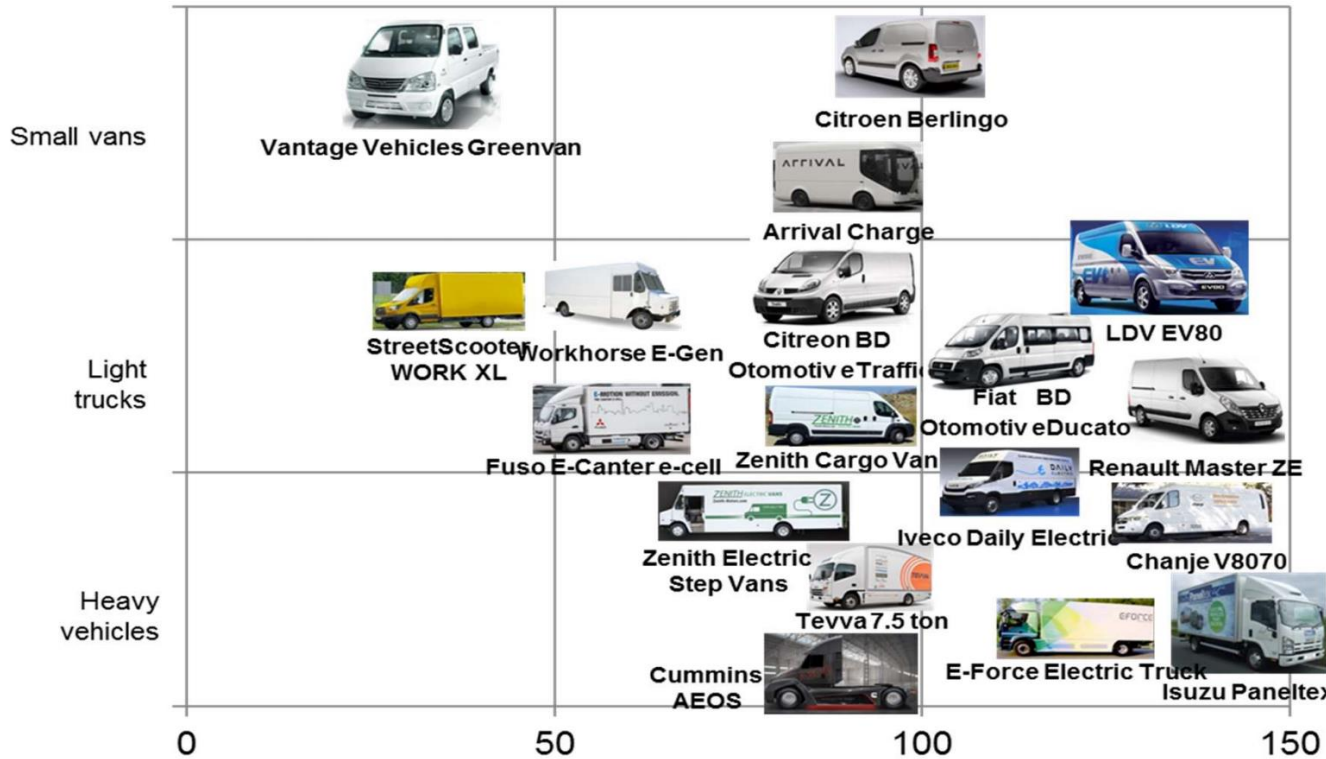
The GRIDSERVE Electric Forecourt® is designed to be the ultimate electric vehicle fleet and public charging experience, powered by low cost clean energy and supporting the local electricity grid.

# Today's public charging infrastructure needs to be rapidly transformed for the coming wave of electric vehicles...



Source: Bloomberg New Energy Finance, Images various. Notes: Not exhaustive. (\*) Range is estimate

# ...not only for EV fleets and consumers without access to off-street parking but also commercial fleets including vans and trucks



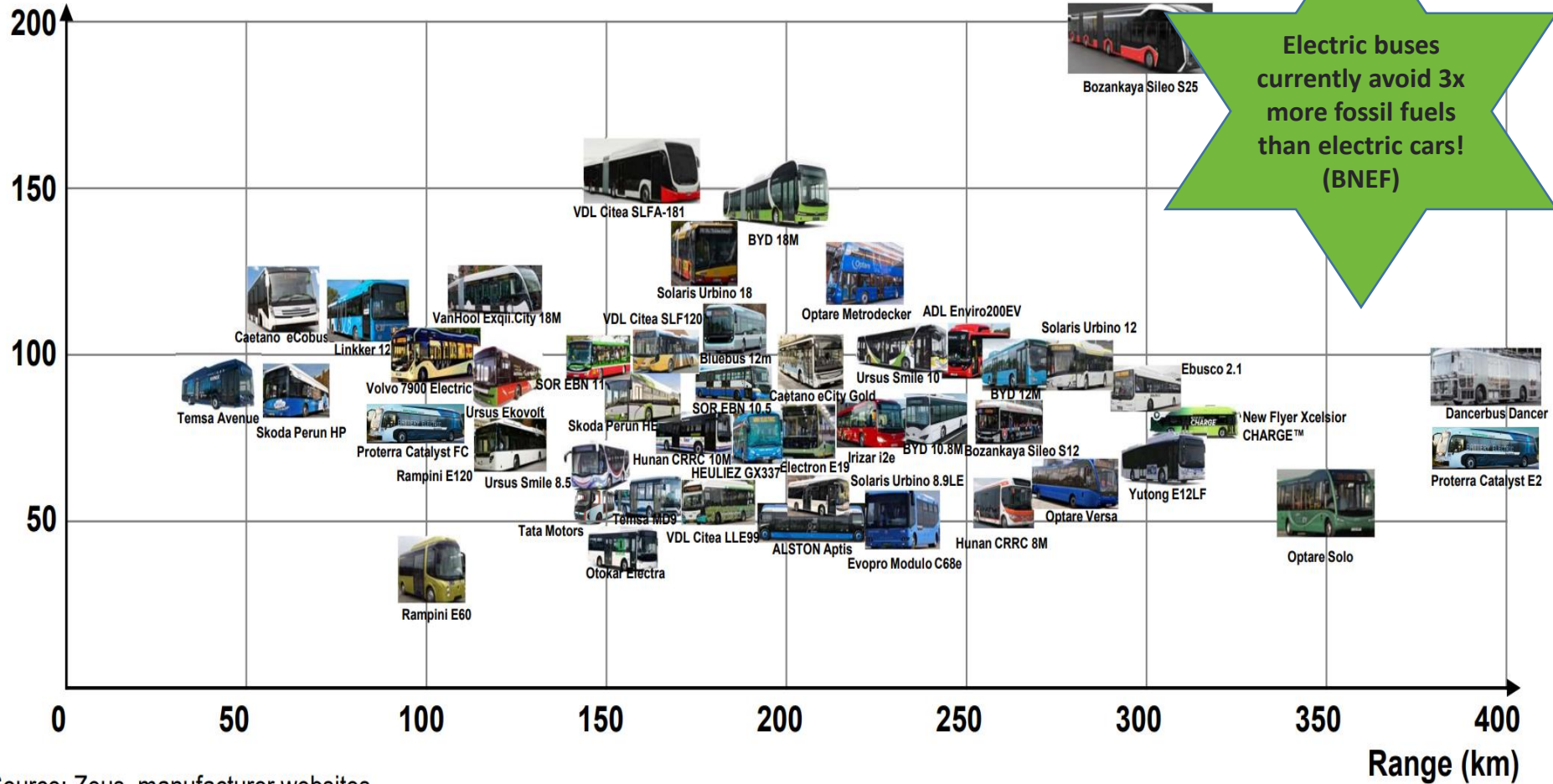
**Numerous Commercial and now Heavy Goods Vehicles...**



Source: @mliebreich

# Electrification of Public Transport fleets also requires significant reliable charging infrastructure to be in place....

Number of passengers



Source: Zeus, manufacturer websites

## And three of Europe's largest automotive manufacturers in March agreed to:



VW CEO Herbert Diess   Ex-Daimler CEO Dieter Zetsche   BMW CEO Harald Krüger

(Credit: [Hendelsblatt](#))

*“Commit to an ‘electric first’ strategy... and to forego commitments to other forms of alternative propulsion, such as hydrogen fuel cells...”*

VW CEO Herbert Diess:

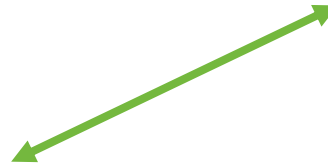
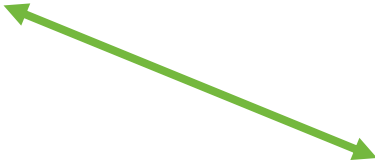
*“there is no way around the Paris climate targets...”*

**... E-mobility is the only technology that is feasible from today's perspective**



# Where do you charge electric vehicles?

**Home  
Charging**



**Destination  
Charging**  
i.e. Workplace, Car  
Parks, Supermarkets



**Public  
Charging**

**GRIDSERVE®**

GRIDSERVE® will radically transform the experience of using electric vehicles, by delivering a UK-wide, sustainable energy powered, affordable, network of ultra-convenient, customer-focussed Electric Forecourts® that allow rapid charging for all electric vehicles and deliver an awesome customer experience





# ...mass-market EV adoption by fleets will require reliable rapid charging infrastructure - currently the weakest link

AC Power: Slow Charging – Home/Work

Previous Generation of DC Power : Rapid Charging

Latest Generation of DC Power : Fastest Possible Charging Today



3-Phase Supply



GRIDSERVE®



3kW

7kW

22kW

50kW

150kW

350-500kW

FULL CHARGE  
20 MIN CHARGE

~20 hours

~8.5 hours

~3 hours

~70 mins

~25 mins

7-15 mins

20 MIN CHARGE

~3 miles of range

~7 miles of range

~22 miles of range

50 miles of range

150 miles of range

350+ miles of range

Maximum home, work and typical public chargers at this level

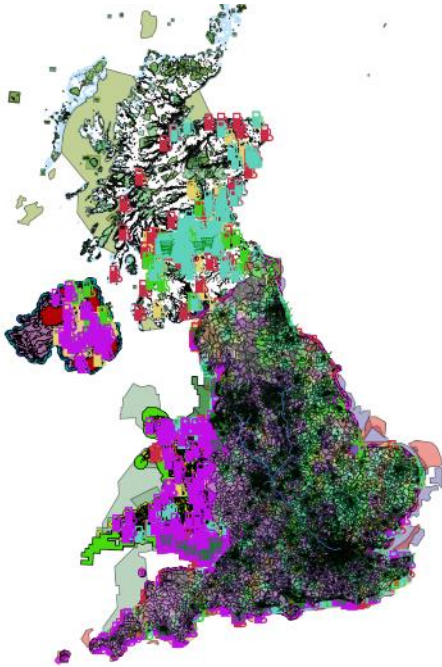
Most 'rapid chargers' are at this level

Initial Electric Forecourt® ultra-rapid charging

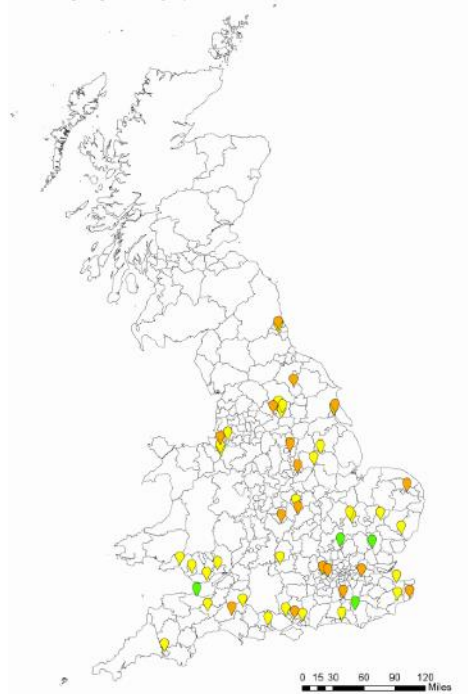
Modular upgrade based on future-proof design

Delivering dependable, low-cost high power charging at this level requires an integrated approach considering grid constraints, public safety and user experience

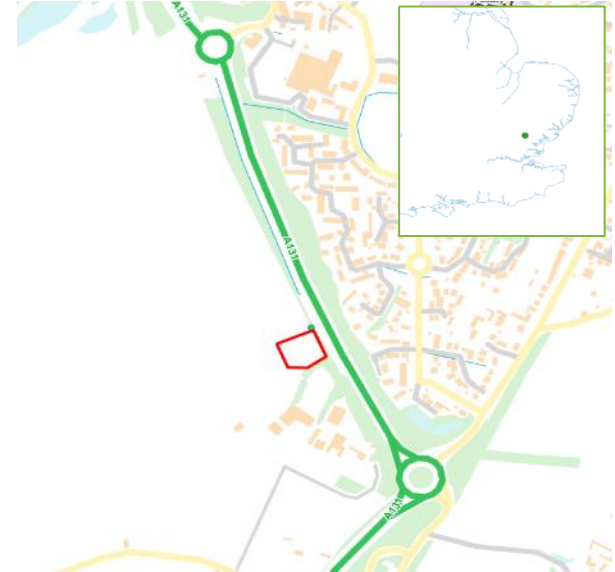
# First site submitted for planning.....Network of over 100



>6,000 sites reviewed  
against 46 detailed  
Network Criteria



>100 sites now at initial  
exclusivity phase



First site submitted for  
planning  
Braintree, Essex



# Braintree Electric Forecourt®

Convenient, Economic, Reliable, Dependable and Ultra-Rapid





# Electric Forecourt<sup>®</sup> Layout and Features

Convenient, Economic, Reliable, Dependable and Ultra-Rapid





# Electric Forecourt<sup>®</sup> Layout and Features

Flexible design accommodates: Commercial and Towing vehicles, Non-charging etc.





# Electric Forecourt<sup>®</sup> Layout and Features

Designed with the EV user experience at the centre and optimised for convenience, speed and scalability





# Electric Forecourt<sup>®</sup> Layout and Features

The ultimate electric vehicle charging experience, powered by low cost clean energy that supports the grid



# Summary

To meet the needs of Fleet and Commercial drivers there are hundreds of new EV's coming to market in the next years BUT without the right charging infrastructure adoption will not accelerate.

**GRIDSERVE Electric Forecourts®** will provide a solution for Fleet and Commercial drivers that offers:

**Over 100 Electric Forecourts®:** a UK-wide network with Braintree first in Q1 2020

**Convenient:** Adjacent to key infrastructure, population centres, business locations

**Reliable:** Industry leading equipment suppliers

**Dependable:** Staff on-site, easy open charger access – no special RFID card or contract

**Economic:** Electric Forecourt® business model has multiple revenue streams, EV charging, solar, battery, convenience retail and additional business services

**Ultra-Fast:** Less than 30 minutes for a full charge even when all charging bays are occupied

**Driver Welfare:** Hot Food and Beverages combined with Airport Lounge style rest, recuperation and work facilities

**100% Renewable Energy:** Generated by GRIDSERVE for Sustainable Fleets





# We are open for Business!

## How can we support your Fleet?

**Jerry Stokes**

Chairman,  
GRIDSERVE Sustainable Energy

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