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# Electric cars are coming – they will need charging

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**Key:**

ICE – Internal Combustion Engine

PHEV – Plug-in Hybrid Electric Vehicle

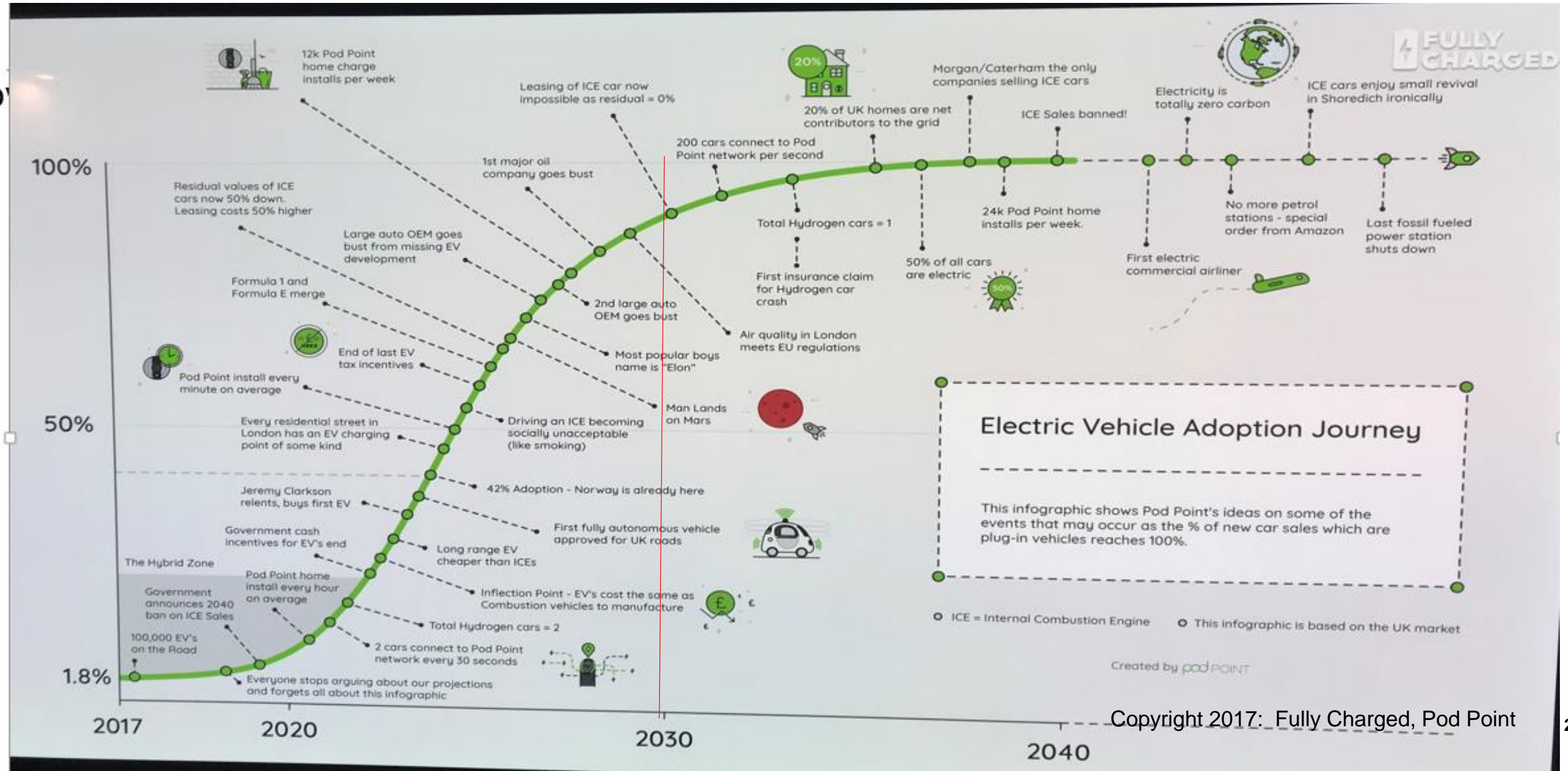
BEV – Battery Electric Vehicle

OLEV – Office for Low Emission Vehicles



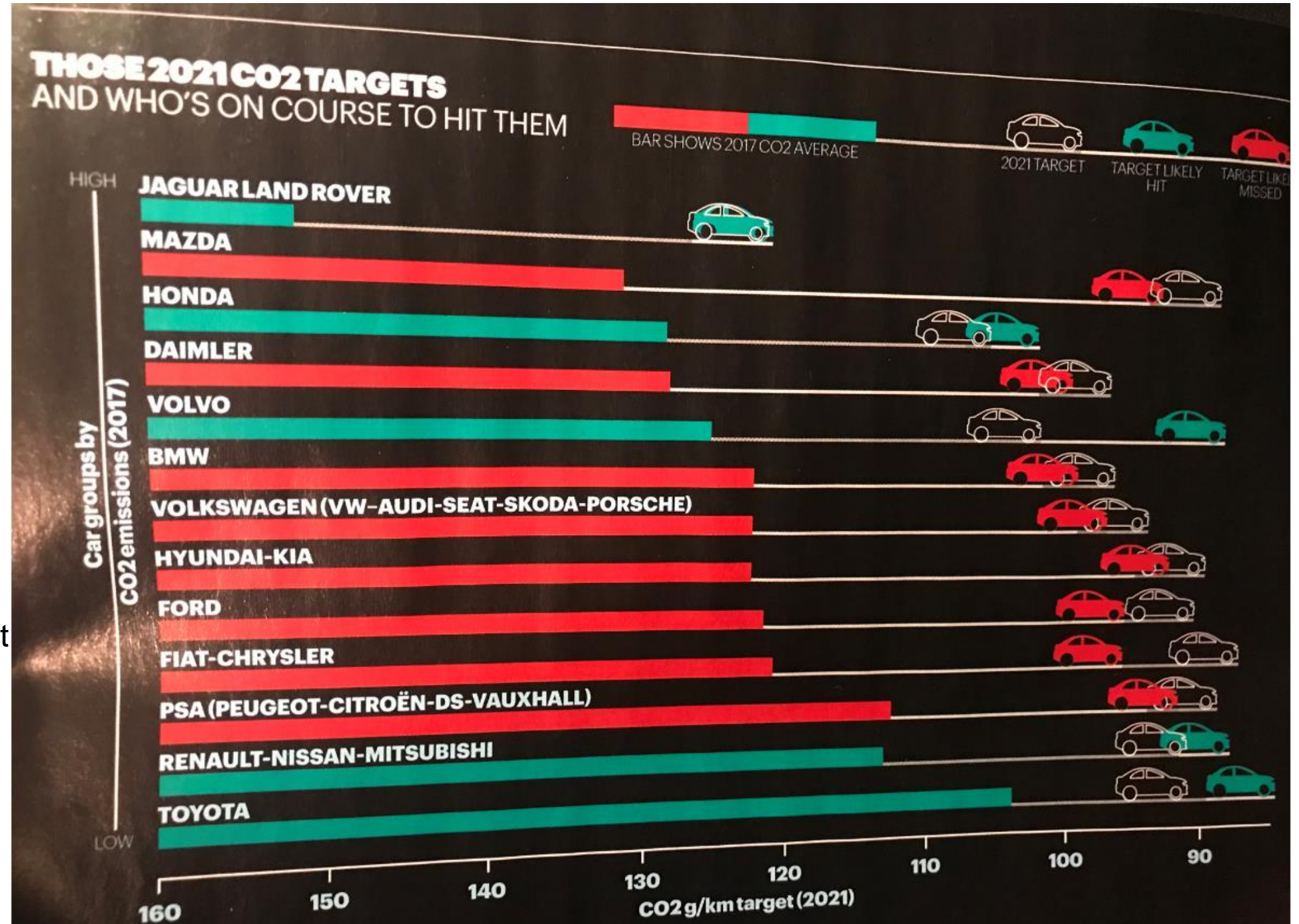
# How quickly are electric cars coming?

UK Gov policy – no more new ICE from 2040. This may prove to be quite pessimistic based on the following two diagrams (The Harvard Business School has stated no new ICE cars designed from 2025)



# 2021 Euro average CO2 95g target

- Each 1g CO2 over 95g, pay Euro 95 per car per annum
- Chart shows 2017 fleet average for different car makes
- Car outline shows 2021 target, green car likely meet, red car likely miss
- Red bar shows likely car makers who will miss target
- E.g. Kia will pay Euro 50m per gram over
- Only way to achieve is to introduce BEVs, PHEVs, restrict ICE sales or pay fine





# Two forces are driving the move to battery electric vehicles (BEVs) – they need somewhere to charge

- Home charging where the owner has a garage or off-road parking
- Rapid charging for larger battery vehicles or when travelling longer distances
- Where to charge on the street?
  - Is this something we should consider for visitors?
  - Or residents/parishioners who don't have off-street parking?

# Charging methods

- 1. Ultra chargers >100kW
- 2. Rapid chargers – 25kW to 100kW
- 3. Fast chargers – 3.5kW to 25kW
- 4. Granny chargers – 13A
- 5. Lamppost charge point - London



ABB Terra HP high power EV charger can operate at powers of **up to 350 kW**



It can recharge the largest EV batteries in **less than 15 minutes**



**Future-proof** architecture serves current and future BEVs though scalability and interoperability.

3.



# Proposal – investigate street light based charging for Defford residents or community based charging

- Street light based charging for community housing where no off-street parking
- Rapid charger at Defford Community Hall for visitors
- There are £500 OLEV Government grants up to 75% of the installation costs

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Note: Potential conflict of interest – my next car purchase will be a PHEV – I would have purchased a BEV, but supply is restricted