My journey from EV novice..

Never mind Lithium Ion batteries, what about Hydrogen?

Hydrogen, in itself, is a clean fuel.

Manufacturing hydrogen fuel, however, is energy-intensive and has carbon byproducts.

What is now called **brown hydrogen** is created through coal gasification.

Grey hydrogen is produced using fossil fuels such as natural gas - it produces carbon waste. Unfortunately this accounts from roughly 95% of the hydrogen produced in the world today.

Blue hydrogen is derived from **natural gas** through the process of steam methane reforming (SMR). ... The carbon dioxide emissions produced are then captured and stored underground using Carbon Capture, Utilisation and Storage (CCUS) technology leaving nearly pure hydrogen.

Green hydrogen production – the ultimate clean hydrogen resource – uses renewable energy to create hydrogen fuel. For example, water electrolysis used to produce long-duration hydrogen energy storage requires a lot of energy.

But what if you drive through a puddle??

Conventional fossil-fuel cars in flood water

Before we consider how EV fare in water, we know that driving ICE cars through floodwater is discouraged because:

- Water can enter through the air intake pipe which is often close to a wheel arch.
- Water can enter the transmission / gear mechanism.
- Water can harm multiple systems if it gets into engine oil or brake fluid.

Are EV's different to conventional cars in water?

- EV don't have an engine; they instead have a motor.
- They have less oils and fluids.
- They have no exhaust pipe.
- The battery pack is well sealed off, as is the controller and the motor.
- Many EV are driven through deeper water than any ICE could manage as part of their testing.
- Elon Musk (Tesla) says that while they definitely don't suggest you do this, his Model S floats well. You can find YouTube videos showing this.
- Most EV have no issue with puddles but if you buy the Renault Twizy without doors then take extra care.

A Leaf driver's tale.

In 2016 I paid £15K for a pre-reg Leaf with 4 miles on the clock.

I'm now selling it for £5K so it has cost me £10K for 5 years motoring.

I've done 107K miles so that's 9.3p a mile.

Electric costs me 2p per mile on the overnight rate (and plenty of free charges).

Let's say that's 11.5p a mile for the car and (green) fuel.

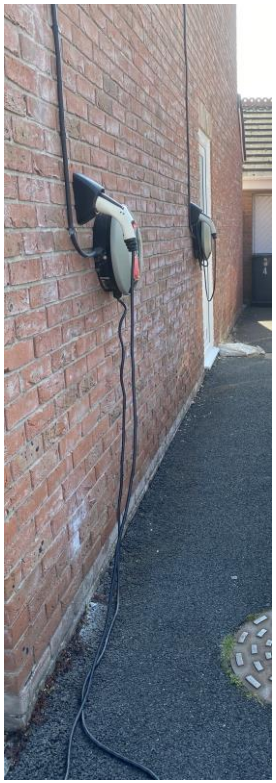
My old car was 15p a mile just for fuel.

If I had paid £25K for the car it would still have been cheaper than petrol.

None of this includes the £0 Road Tax, lack of repairs, low insurance and minimal servicing costs.

A new EV?

- New EV at the end of June 2021
- Just come back from a week in York & Whitby
- Charged it overnight at home before leaving at £12
- Drove 300 miles and charged at Aldi in Whitby (twice and free).
- Charged at Alfa HQ on the way back (free).
- Total mileage 550 miles.
- Total cost £12




POWER
100%
25918 miles
9.9 miles
ECO
140
miles


Faroe
Islands
Paris

12 x 350kW chargers at MOTO's new Rugby services offers a taste of the future


ELECTRIC VEHICLE
50KW RAPID CHARGING
Electric vehicle recharging point only
At any time
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engenie
Helping make the air we all breathe clean and pollution free
Encouraging uptake of low-emission vehicles through simpler charging
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ZERO SR


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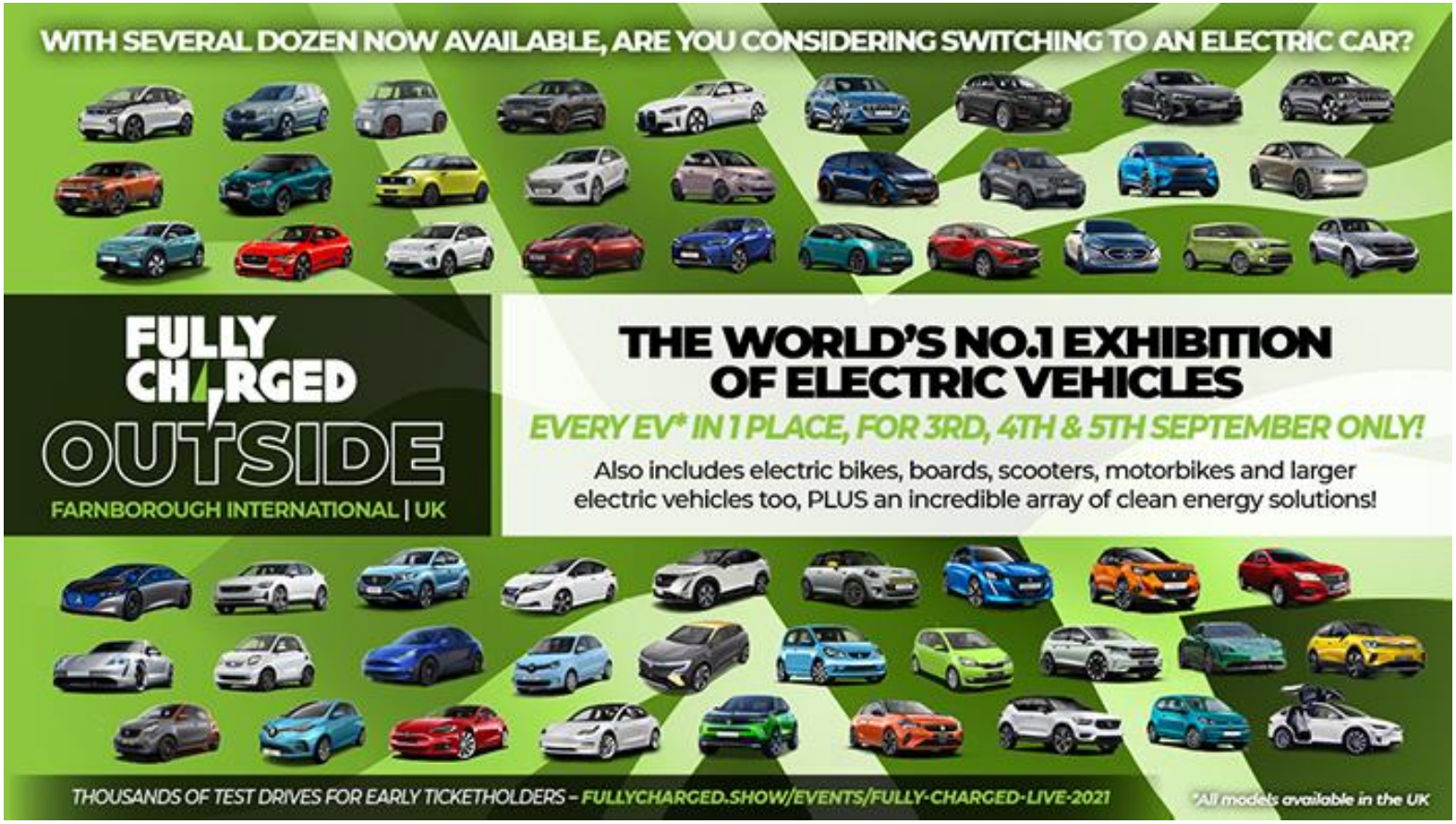

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