



Electric cars – the new kid on the block!

As we've explored, it makes sense if possible to walk and cycle if possible, or share public transport to minimise traffic in our city. However, for those who require the convenience of a car for whatever reason – what about electric cars?



Tesla Model 3 (200 mile range) has taken 500,000 pre-orders!

New Nissan Leaf with > 150 mile range is built in Sunderland

Are they really greener? Are they practical?

- Fully electric vehicles (EVs) are not zero emission as often quoted - as they require energy from the grid to power them, and they also require carbon emissions to manufacture – however, they are **significantly** cleaner and greener than diesel and petrol vehicles – particularly in a country like the UK that is decarbonising the electricity system rapidly. **A recent study from a University in Brussels suggested whole life emissions are about a third of diesel/petrol¹**, but even better – reduce annually as grid coal power generation declines further & wind/solar grow.
- **Hybrid cars are more controversial and the environmental benefits are much reduced.** They are likely to be a short-term solution as the range of standard EVs is likely to exceed 200 miles very soon.
- **Internal combustion engine ban** - Many countries and cities globally have announced bans / major restrictions / taxes in the pipeline for petrol/diesel – and Oxford may create one of the world's first zero emission zones soon!
- **Battery prices and energy density are improving all the time** – both helping to create increasingly practical & affordable vehicles with substantially reduced fuel (75-80% less) & maintenance costs.
- **Real choice emerging** - View the ever increasing range of EVs and hybrids here <https://ev-database.uk>

Charging forward

- **Challenges charging at home?** Many people are able to charge at home, however half of homes do not have off-street parking, so it's not possible to install a charge-point. Oxford City and Oxfordshire County Councils are working together to trial on-street parking solution. Find out more here - www.GoUltraLowOxford.org.
- **The time of day you charge an electric car makes a big difference** as well. If at all possible avoid 4-8pm week nights when the most coal is generated (note - this still applies if you are on a renewable energy tariff!). Ideally schedule charging during the early hours of the night, or on sunny days solar days also closer to lunch-time if you're home.
- **Public charging** network is now fairly extensive & growing, however it's wise to plan ahead. The most comprehensive site is www.Zap-Map.com/live where you can also filter on charge speeds, accessibility & 1 connection types.

For any queries & talks about EVs & our energy system – contact ex- CAG member Anthony Simpson. University of Reading EV researcher working with EV leasing & smart charging company DriveElectric [ant_simpson@yahoo.co.uk]

¹ <https://www.transportenvironment.org/press/electric-cars-emit-less-co2-over-their-lifetime-diesels-even-when-powered-dirtiest-electricity>

Did you know

- *50% of new cars sold in Norway are plug-in, the highest % in the world!*
- *2% of new car sales in the UK are now plug-in (a European average), and this is rising.*
- *There are 3 million plug-in vehicles in the world so far, and 50% of global plug-in car sales) are happening in China!*

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