**Electric vehicles – frequently asked questions**

**How much does it cost to run an EV?**

On average the cost of traveling in an EV is a quarter of the cost of traveling in a petrol or diesel car - cost savings will be greatest when owners have access to an off-peak overnight electricity tariff."[1]

**How can EVs be cheaper if they are more expensive to purchase?**

With lower fuel and tax costs plus around a 70% reduction[2] in servicing, EVs can cut your vehicle ownership costs particularly for high mileage drivers. To make a personalised comparison try the calculators at:

https://www.goultralow.com/electric-car-savings/journey-cost-savings-calculator/ OR
https://www.nextgreencar.com/tools/fuel-cost-calculator/

**What about the emissions are still produced whilst the electricity is being generated?**

Whilst there are emissions released when the electricity is generated the amount varies depending on the generation method, time, and country of origin. To reduce the emissions associated with electricity generation EV drivers should charge overnight if they are using grid electricity when the grids carbon intensity is far reduced compared to the day. Furthermore, some drivers will have microgeneration at home such as wind or solar to reduce their dependence on the grid. Finally, there is a growing supply of energy tariffs designed for EV drivers; these usually provide 100% renewable energy as standard. For tips on selecting the right tariff, see:
http://www.energysavingtrust.org.uk/transport/electricity-tariffs-electric-vehicles

One recent study found that even when powered by the most polluting electricity, EVs release 25% less emissions than ICE vehicles over their lifetime[3].

**I do not think there is currently enough charging infrastructure and their range isn't great enough.**

According to SCC's 2018 travel to work survey 82% of people working in Suffolk travel no more than 20 miles to work. The average "real world" range of the top 5 bestselling pure EVs is 226 miles. Meaning that the average EV driver would only need to charge once per week for their commute and we envisage this charging would take place over night at home. For longer journeys, rapid chargers found at almost every service station can provide 80% charge in roughly 40 minutes based on a 40kWh Nissan Leaf, a similar amount of time it takes for a rest break and to grab a coffee. As new models are released, the average range continues to grow but this becomes less important if you are charging overnight. Think of charging your car similar to how you charge your phone.

[1] http://www.energysavingtrust.org.uk/transport/electric-vehicles
[2] https://www.goultralow.com/news/press-releases/thats-shocking-brits-underestimate-benefits-switching-pure-electric-car-42-dont-think-can-put-one-car-wash/
[3] https://www.transportenvironment.org/publications/electric-vehicle-life-cycle-analysis-and-raw-material-availability

**How long does it take to charge an EV?**

The charging time depends on the type of charger used and the size of the cars battery. Example: charging a 40kWh Nissan Leaf. Figures taken from Zap-map[4]

| Rapid 50kW | Fast 7kW | Slow 3kW |
|---|---|---|
| 40 mins<br>0-80% | 6 hours<br>0-100% | 14 hours<br>0-100%* |

*Remember that is it highly unlikely that you will arrive at a charger with almost 0% battery remaining, therefore most charging sessions will be topping up the battery after a commute.

To get a personalised estimate on charging time and cost for a particular vehicle see: https://www.zap-map.com/tools/home-charging-calculator/

[4] https://www.zap-map.com/charge-points/nissan-leaf-charging-guide/