



1b. How to: Install electric vehicle charging points



Why is it important?

Fuel-burning vehicles release emissions into the atmosphere which are harmful to the environment and to our health. A study has found that electric vehicles emit half the carbon emissions of diesel vehicles. Britain has made a commitment to ban all new petrol and diesel cars and vans from 2040 in a bid to tackle air pollution.

Providing electric vehicle charging points at your dental practice promotes the message of sustainability and can encourage staff and patients who travel by car to think about using an electric/hybrid vehicle. Charging points can cost as little as £300 if purchased through the Office for Low Emission Vehicles (OLEV), a government run scheme. Life Cycle Analysis of the Climate Impact of Electric Vehicles, October 2017. VUB university, Brussels

<https://about.bnef.com/electric-vehicle-outlook/>



What does sustainable practice look like?

Real life examples:

Northumbria Healthcare NHS Foundation Trust are now using a fleet of 13 all electric Nissan e-NV200 vans which have low running costs and zero emissions mobility for the delivery of health supplies, mail and sample collection across its hospital and community sites. Its estimated that the vans will save 59 tonnes of carbon emissions annually (the equivalent of flying 5 times from the UK to Hong Kong).

North East Ambulance Service have installed electric vehicle charging points at 6 sites in the North East. They say: “the uptake of electric vehicles was vital for the Ambulance Service. We aim to be proactive in promoting a cleaner environment and the use of electric vehicles also enables us to save money on high fuel costs”.

They used an independent company ‘Elm Electric Vehicle Charging Solutions’ who provide private and public sector organisations with fast and reliable charging solutions.

Whittington Hospital NHS Trust is planning to reduce the rate of its annual parking permit fee for staff with electric vehicles. The charge of the permit is linked to the carbon emissions of the vehicle to encourage individuals to switch to other modes of transport. Electric vehicles will get 6 months free.

Modelled example:

Sam is a dental nurse at a rural village dental practice in Somerset. His commute to work from home takes 40mins by car and would take over 1h30 if using public transport. He has recently bought a new ‘plug-in-hybrid’ to replace and upgrade his old petrol car which was becoming too expensive to run.

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Modelled example *continued*:

He joined the dental practice a year ago whilst the practice was having electric vehicle charging points installed. There are 2 charging points available in the front drive of the practice for use by staff and patients.

They are very efficient and can charge a car up to 80% in 30 minutes.

Sam can leave his car to charge during the day whilst he is at work, or even just during his lunch break. Being in a rural location, many patients also can only easily access the practice by car. Patients with electric vehicles are pleased they can charge their cars during their appointment and many are enquiring about the charging points.

The practice reception provides information about electric vehicles and charging points, including leaflets and links from the supplying company and also from a local electric car dealership with whom the practice has liaised with which often have promotions.



Actions

KEY:

Implementation: Easy = 😊😊😊 Less Easy = 😊

Investment Cost: Low = 💷 High = 💷💷💷

Financial return on Investment (ROI): Low = 🐷 High = 🐷🐷🐷

Environmental benefit: Small = 🌍 Large = 🌍🌍🌍

- Liaise with car manufacturers and companies who provide electric vehicle charging point installation to receive more information about the feasibility of installation at your practice



- If your practice does not have a car park, liaise with your local Council to install charging points on public car parks nearby



- Display information regarding the benefits of electric vehicle use in the practice and where the nearest charging points are located



- Encourage providers of services such as your dental laboratory to switch to using an electric vehicle



Sara Harford, Darshini Ramasubbu, Brett Duane, Frances Mortimer - Centre for Sustainable Healthcare (2018)

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Resources

Case studies:

Northumbria Healthcare NHS Trust and North East Ambulance Service:

<http://www.elmev.co.uk/tag/case-study/>

Whittington Hospital NHS Trust permit charges for electric vehicles:

<http://map.sustainablehealthcare.org.uk/parking-permit-charges-linked-carbon-emissions>

More links:

Useful information about electric vehicle charging points:

<http://www.eco-environments.co.uk/electric-vehicle-charging-points/>

The Guardian: carbon emissions of electric vehicles

<https://www.theguardian.com/environment/2017/oct/25/electric-cars-emit-50-less-greenhouse-gas-than-diesel-study-finds>

Duane. B, Ramasubbu. D, Steinbach. I, Stancliffe. R, Croasdale. K, Harford. S, Lomax. R, (in press). Environmental sustainability and travel within the dental practice. British Dental Journal.

Dental Susnet, online network for improving the sustainability of dental services:

<https://networks.sustainablehealthcare.org.uk/dental-susnet>