

# Draft strategy and action plan to deliver a Herefordshire and Shropshire (incl. Telford & Wrekin) network for charging electric vehicles

## Executive summary

### **The need for a comprehensive network**

This is an initiative to deliver a comprehensive network of electric vehicle (EV) charging points in the Marches. Present arrangements are inadequate, being both low in number and limited in geographical coverage, with no one body having any strategy nor funding to develop a strategic network.

Yet the government seeks an end to the sale of all new conventional petrol and diesel cars and vans by 2040.<sup>1</sup>

This proposed strategy offers an opportunity to establish a partnership of the private, voluntary and public sectors, the visitor economy and general public.

This sets a challenge for Herefordshire and Shropshire (including Telford & Wrekin) to ensure such electric vehicles can be suitably 'refuelled.' It is typically assumed that most car users will charge up at home but approximately 43% of existing car owners do not have access to off street parking.<sup>2</sup>

Today most owners or users of EVs have home or business charging points. If EV use is to grow charging points must cater to those without such ready access, or those travelling greater distances - essential to achieving fossil fuel free transport.

Currently charging points are focused on only a dozen or so places.<sup>3</sup>

Such charging points are 'standard' (slow, c.3-11kW) with some 'fast' (c.22kW) and a few 'rapid' (50kW) chargers at major filling stations, such as motorway services.

Our vision is of a widespread, reliable network of charging points that provides reasonable choice to drivers in charging their vehicles across the Marches area at a fair price with minimal inconvenience and supported by local amenities, such as publicly accessible toilets, café or restaurant.

The effective network we propose should extend to locations other than fuel filling stations, such as where vehicles currently park. This includes work places, business parks / industrial estates, public car parks, on-street, retail parks, supermarkets, hotels and leisure facilities. There is a clear need to extend into the more rural areas and increase general availability in urban areas.

1 Plan for roadside NO2 concentrations - includes an end to the sale of all new conventional petrol and diesel cars and vans by 2040 and a new Clean Air Fund

<https://www.gov.uk/government/news/plan-for-roadside-no2-concentrations-published>

2 Source: Our energy insights - Forecourt thoughts: Mass fast charging of electric vehicles, National Grid

<http://fes.nationalgrid.com/insights/forecourt-thoughts-mass-fast-charging-of-electric-vehicles/>

3 Bromyard, Hereford, Kington, Ledbury, Leominster, Malvern, Ross-on-Wye, Church Stretton, Ludlow, Oswestry, Shrewsbury, Telford

## **Finance**

It is recognised that finance is needed to install charging points but there are funding sources available and there is the growing incentive to provide such services to staff and customers. There are two elements to the overall cost, namely the charging unit and its installation cost. Every situation is different, so assuming no particular difficulties, a 'standard' fully installed Type 2 7kW double-header would cost around £1,500, after the WCS (Workplace Charging Scheme) Grant – in this case worth £600 – has been applied. Likewise, a 22kW double-headed post unit costs £2,500-£5,000 (including WCS Grant), while a fully installed rapid charge unit can cost up to £35,000.<sup>4</sup> There would be on-going maintenance cost implications which would likely relate to the intensity of usage of the equipment and its degree of complexity.

Simple payment at the charging point by contactless credit or debit card is ideal for wider accessibility.

Where appropriate a national or regional operator may wish to finance the investment.

Estimating the necessary investment to provide a much improved network is highly speculative but is certainly in the region of £1m and upwards. As an illustration providing 100 no. 7kW double-header points, 100 no. 22kW double-header and 25 no. rapid chargers would cost around £1.6 million. This is derived from roughly £210,000 for the 7kW, £500,000 for the 22kW and £875,000 for the rapid chargers.

## **Marches support so far**

We have already received the support of the Shropshire Chamber of Commerce; Shropshire, Herefordshire & Worcestershire Federation of Small Businesses; and Herefordshire and Worcestershire Chamber of Commerce. We have attracted the interest of the Business Environmental Support Scheme for Telford (BESST) and Marches Local Enterprise Partnership.

## **Outline Action Plan – initial steps**

Following consultation on this draft an final strategy and action plan will be published. We will further develop relations with a range of partners including the unitary and local councils, Marches LEP (Local Enterprise Partnership), individual businesses (small to large), the voluntary and public sectors, and general public.

The action plan will be progressed by a working party of volunteers, to follow up the consultation responses; modify and publish the strategy and action plan; identify gaps in the network; contact potential host sites providing general technical information, assess and explore options; record and map the growing network; etc.

## **Action Plan - subsequent steps**

Progress depends on the potential hosts' interest, the costs and sourcing of funding, management of the installation process and possible involvement of national or regional operators who could take on the entire responsibility for the development.

It is intended to monitor developments in EV charging, update partners of progress and publish a yearly review of the growing local network.

It is hoped individual businesses would wish to pursue on-site charging for employees and official visitors. More public-facing businesses, such as hotels or leisure facilities or retailers, may wish to establish charging points for wider use.

<sup>4</sup> <https://www.zap-map.com/charge-points/charging-work/>