North Somerset Council

Open, Fairer, Greener

North Somerset Council

Electric Vehicle Strategy

Introduction

Our electric vehicle (EV) strategy assesses current uptake, forecasts demand for EV charging and shows how this can be delivered.

Most EV drivers (the early adopters) currently charge at home, off-street or via a private charge point. However, this is expected to change in the coming years.

There will be greater demand for residential on-street and hub charging as more households without access to off-street parking purchase or lease EVs.

We have a key role to play in ensuring these drivers have convenient and affordable access to charging infrastructure.
Comprehensive public charging network coverage is also needed to increase the confidence of other residents and businesses to swich to EVs. This will help with achieving the council's carbon neutrality targets.

We are a partner in the West of England's public sector-led Revive Network, and have ambitions to further expand this network across North Somerset.

Current EV uptake & charge point provision

EV uptake in North Somerset is rising quickly. **As of 2022 Q3, 2,800 electric vehicles were registered in North Somerset,** out of a total of 151,355 registered vehicles in the area, equating to 1.85% of all vehicles in North Somerset.

There are currently 92 publicly available charge points, most of which are 'slow' (up to 7 kW). There are 30 rapid and ultra-rapid charge points (above 50 kW). Some of these are part of the Revive Network and located in council car parks, while others have been deployed on private land by the private sector.

Forecast of EV uptake and charge point requirements

It is expected that EV uptake in North Somerset will rise to 7.7% of all vehicles in 2025, and 30.1% in 2030. **By 2030, this equates to around 37,509 EVs within North Somerset.**

To meet this demand, it is forecast that 1,619 fast (up to 22 kW) and 370 rapid publicly accessible charge points will be required by 2030 across North Somerset, in a mid-range scenario. These forecasts account for North Somerset's rural nature, socio-demographics and electricity grid constraints, among other factors.

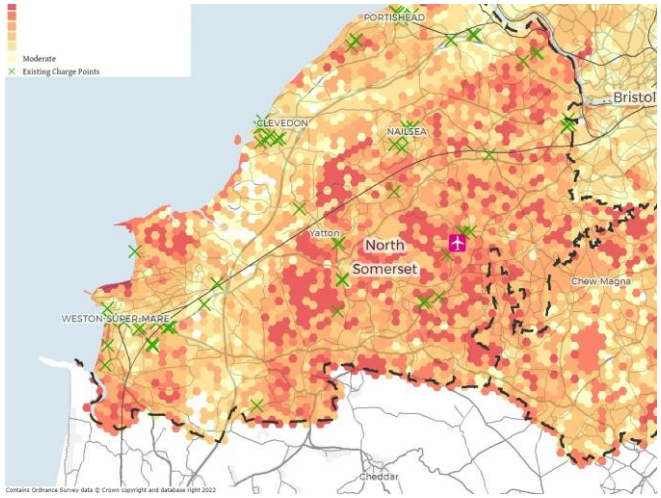
The private sector is anticipated to provide a significant proportion of these publicly accessible charge points. However, we will need to intervene to fill gaps in the EV

Year	Charge point type	Mid-range EVCP provision
2022	Fast	51
	Rapid	0
2025	Fast	173
	Rapid	10
2030	Fast	613
	Rapid	30

Figure 1 Forecast public sector funded EV charge point requirements

charging network that the private sector will not deliver by drawing on central government grant funding **It is forecast that the public sector will need to fund 613 fast and 30 rapid publicly accessible charge points by 2030, see Figure 1.**

Figure 2 Forecast charge point market failure, notably in rural areas.



The distribution of where these gaps (darker red areas) in the network may arise is shown in Figure 2.

Achieving this may involve a partnership with the private sector and/or the Revive Network.

Unless full grant and public sector match-funding continues to be available, concession agreement has been identified as the preferred delivery model to enable sustainable network expansion. Further government support is expected in 2023 to help meet the demands of charge point deployment using council resources. We will remain flexible in our model and reactive to EV uptake including exploring commercialisation models.

Integration of EVs into our NSC's transport hierarchy

While EVs have zero tailpipe emissions, they contribute to congestion, emit particulate matter from tyres and brakes and do not have the health benefits of active travel.

Residents and businesses will therefore be encouraged to only undertake a journey by private EV after first assessing options above EVs in the transport hierarchy, such as walking, wheeling, cycling or using public transport. The provision of charge points should not diminish active travel and public transport as the natural first choices.

Opportunities will also be explored to integrate EVs into mobility hubs, car clubs, bus and taxi fleets, and to increase uptake of e-bikes and e-cargo bikes.

Objectives & Actions

We have set out 6 objectives, each supported by a number of actions which show our role of leadership and facilitation and the need to work in partnership with stakeholders, such as charge point operators, National Grid, private landowners and businesses.

1. To expand the network of EV Charge points in North Somerset
2. To seek private sector investment to fund a scaled up charging network
3. To collaborate with the REVIVE Network and other key organisations
4. To influence other organisations to fill gaps in the charging network
5. To future proof new developments
6. To monitor the pace of EV uptake, charge point provision and government announcements