Electric Vehicle charging in Herefordshire - Progress & Challenges



### Welcome

**Greener Footprints Sandwich Session** - grab a bite to eat or a cuppa and join us for a short info session for Herefordshire businesses

**Next month:** Supporting Nature at work – How to deliver benefits for nature in the workplace. **25**<sup>th</sup> **April 1pm** 

Topic you'd like us to cover? Email <a href="mailto:climate@Herefordshire.gov.uk">climate@Herefordshire.gov.uk</a>

Hosted by Herefordshire Council. Open to all.







### Today's session

What's going on across the Midlands and in the Marches

Update on charging infrastructure in Herefordshire

Case study from a local business

Grants and funding signposting

Opportunity to ask questions





# **Hub Overview**

Tim Yair - Principal Net Zero Project Officer (Marches)

https://www.midlandsnetzerohub.co.uk/



### What is the Midlands Net Zero Hub?

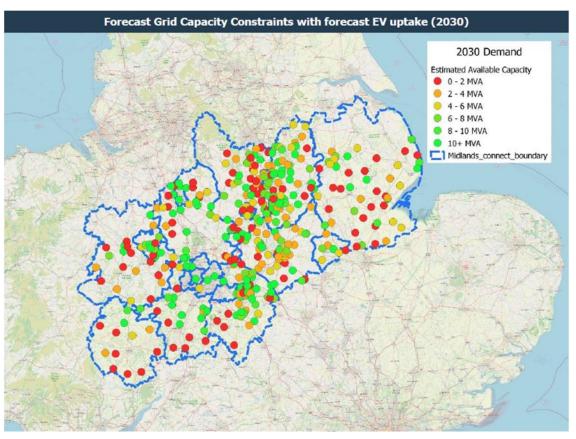
The Midlands Net Zero Hub aims to support the capacity of Local Authorities and other partners to identify and deliver local energy strategies and projects.

- Increase number, quality and scale of local energy projects being delivered
- Raise local awareness of opportunity for and benefits of local energy projects
- Enable local areas to attract private and/or public finance for energy projects
- Identify working models for Hubs to be financially self-sufficient
- Promote opportunities for training and skills development
- Improve the regional and national communication channels

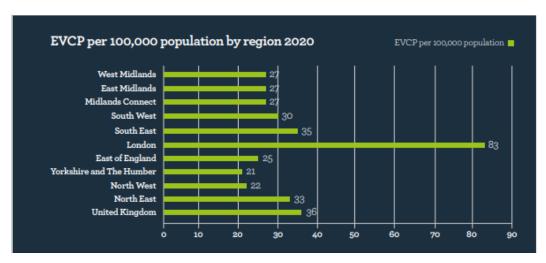


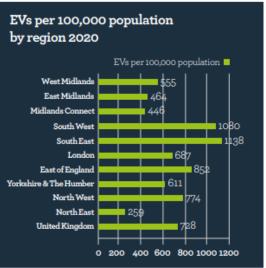
# Current EV Infrastructure – The Midlands

- The Midlands could have over 2 million electric cars (EVs) on its roads by 2030 (an increase of 1,899% on today)
- Just under a third (32.5%) of all vehicles registered in the Midlands could be an electric vehicle by the end of 2030.
- 58,997 new public charging points will be needed across the region by 2030 to keep pace with the boom a 969% increase from today's 6,090.
- This equates to the installation of 27 new EVCPs every day, 194 per week, and 9,832 per year until the start of the new decade.



### Current EV Infrastructure - Midlands





EVCPs by country 2020	Total EVCP	Slow Chargers (<=22kW)	Rapid Chargers (>22kW)	Population	Total EVCP per 100,000 Population	Rapid EVCP per 100,000 Population
Netherlands	66665	64236	2429	17,407,600	383	14
Norway	18719	13547	5172	5,367,600	349	96
Iceland	386	288	98	364,100	106	27
Sweden	10412	8804	1608	10,327,600	101	16
Austria	8232	6885	1347	8,909,100	92	15
Switzerland	7834	6676	1158	8,606,000	91	13
Belgium	8482	8006	476	11,549,900	73	4
France	45751	42000	3751	67,098,800	68	6
Finland	3728	3244	484	5,525,300	67	9
Denmark	3254	2699	555	5,822,800	56	10
Germany	44669	37213	7456	83,166,700	54	9
United Kingdom	20,775	16,895	3,880	67,081,234	31	6
Portugal	2470	1976	494	10,295,900	24	5
Italy	13381	12150	1231	60,244,600	22	2
Ireland	1082	812	270	4,963,800	22	5
Midlands Connect	2170	1618	552	10,070,331	22	5
Spain	8173	6045	2128	47,330,000	17	4
Hungary	1295	1008	287	9,769,500	13	3
Czech Republic	1200	590	610	10,693,900	11	6

# Current EV Infrastructure – The Marches

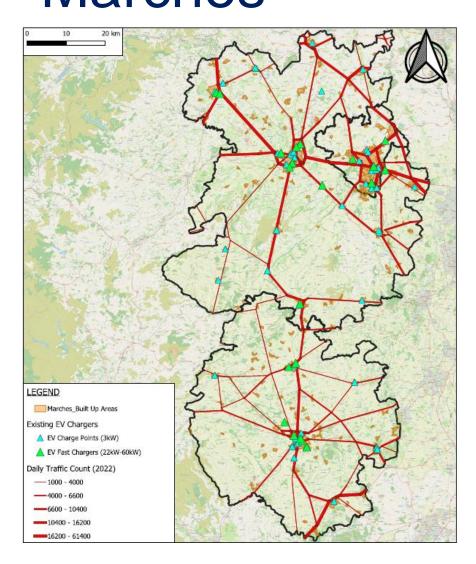


Table 15 - EV rollout, CO<sub>2</sub> emissions from transport, and increasing grid demand.

		2023	2030	2035	2040	2045	2050
Cumulative No. EVs (thousands)	Shropshire	5	78	178	220	220	206
	Herefordshire	4	51	117	145	145	136
	Telford & Wrekin	2	36	82	102	102	96
	TOTAL	11	165	377	466	466	437
CO2 emissions from transport (kilo tonnes)	Shropshire	743	555	253	137	85	48
	Herefordshire	407	298	140	76	47	26
	Telford & Wrekin	306	235	131	67	46	21
	TOTAL	1456	1089	524	280	179	95
Annual grid demand from EVs (GWh)	Shropshire	19	241	574	837	953	982
	Herefordshire	15	156	372	537	604	617
	Telford & Wrekin	9	109	260	376	425	435
	TOTAL	43	506	1206	1750	1983	2033

### Current EV Projects

- North Staffordshire Low Emission Taxi Charging Infrastructure Scheme (LETIS)
  - Led by Stoke-on-Trent City Council
  - Funded by OLEV
- Regional Transport Hubs Study
  - Commissioned and funded by MEH
  - Carried out by CENEX
- Electrification of Council Depot
  - A guide to making local authority depots ready for fleet electrification



## Regional Support

#### Midlands Connect + Midlands Net Zero Hub regional collaboration

- Local to regional EV business case
- Supporting with LEVI and Post-LEVI plans
- Collaborating on EVCI strategy
- Link with alternative fuels and wider energy infrastructure
- Developing coherent advice and business cases and share good practice between Local Transport Authorities and District Councils

Belinda Wilson

Electric Vehicle Infrastructure Officer

Herefordshire Council

## Electric Vehicle Chargers – a rough guide

- Slow 3.5kW or lower .. takes around 8 hours for a full charge.. Ideal for overnight / all day charging
- Standard chargers 3.5 to 22kW takes 4 8 hours for full charge .. Ideal for destination charging / long stay
- Fast chargers 22 43kW .. takes 2 4 hours to recharge .. Ideal for destination charging / short stay

- Rapid chargers 43 to 100kW .. takes 25-40 minutes for a recharge .. Ideal for a top up whilst having a break in a journey
- Ultra rapid chargers over 100kW … Ideal for quick stop charging
- The speed of recharging depends on the vehicle not many can take the ultra rapid charging yet









### Council Charge Points

2013/14 - First charge points installed in council car parks

2019 - network replaced by bpChargemaster units

2020 – rapid chargers installed by SWARCO – the first rapids in council car parks

2022 – concession contract awarded to Wenea – charge points replaced with contactless

2024 and beyond – Wenea expansion including rapid and ultrarapid across the county





Local Electric Vehicle Infrastructure Scheme – LEVI

- Announced 2023
- Consortium working with Midlands Connect
- On-street charge points
- Pilot ~ £950k total
- Main fund over £1m allocation
- Installations to begin in 2024



Map of electric charging points for electric cars UK: Zapmap (zap-map.com)



### Support for Business

#### Expansion in car parks:

- More charge points and faster charge points
- Available for general public and businesses

#### LEVI funding:

- On-street to support residents
- Residents with EV work vehicles and rural businesses

#### **EV Strategy:**

- Being finalised to be adopted this year
- Live strategy regularly reviewed and updated
- Internal actions and liaison with stakeholders including businesses



### Support for Business

#### EV webpages:

https://www.herefordshire.gov.uk/parking-1/electric-car-charging

- Network news
- EV drivers group
- Location requests





### **Practical Considerations**



- Electricity network capacity
- Costs of bringing supply to charge point location
- Timescales delays

- Connectivity
- Mobile signal



#### Accessibility



Appropriate type of charger

- Dwell time
- Regular routes
- Standard / Rapid / Ultra rapid

### Case Study



#### **Phillip Pearcy**

Operations and Sustainability Manager
The Courtyard Trust
Hereford's Centre for the Arts



### Government Support

# **Electric vehicle infrastructure** grant for staff and fleets

This grant is for small and medium-sized businesses.

It gives you money off the cost of wider building and installation work that's needed to install multiple chargepoint sockets.

Closing date: 31 March 2025

https://www.find-governmentgrants.service.gov.uk/grants/electric-vehicleinfrastructure-grant-for-staff-and-fleets-1

#### Plug in van and grant scheme

The grant is available to customers at the point of purchase directly from the dealer or manufacturer's representative. Consumers do not have to go through a grant application process themselves.

https://www.gov.uk/government/publications/plug-in-van-grant



https://www.gov.uk/transport/zero-emission-and-electric-vehicles

### Government Support

#### **Workplace Charging Scheme**

Grant to provide support towards the costs of the purchase, installation and infrastructure of electric vehicle chargepoints at eligible places of work.

Closing date: 31 March 2025
<a href="https://www.find-government-grants.service.gov.uk/grants/workplace-charging-scheme-2">https://www.find-government-grants.service.gov.uk/grants/workplace-charging-scheme-2</a>

# Workplace Charging Scheme for state-funded education

#### institutions

Grant for eligible state-funded education institutes to provide support towards the costs of the purchase, installation and infrastructure of electric vehicle chargepoints.

https://www.gov.uk/guidance/workplacecharging-scheme-for-state-funded-educationinstitutions



### Other Support

#### **Energy Saving Trust**

We provide insight, advice, training and consultancy services to communities, local authorities, government and businesses on home energy efficiency, low carbon transport, and renewable energy generation.

https://energysavingtrust.org.uk/business/

https://energysavingtrust.org.uk/service/fleet-advice-consultancy/













## Any Questions?

#### **Suggestions:**

For charge point locations

Electric vehicle
charge point location
suggestion form – Your
details – Section 1
– MyHerefordshire



#### To get updates into your inbox:

Sign up to the Greener Footprints

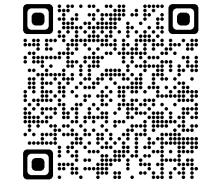
**Business Network** 

Greener Footprints

Business Network –

Herefordshire Zero

Carbon and Nature Rich





### **Contact Details**

For future sandwich session topics suggestions and feedback

Climate@Herefordshire.gov.uk

For EV chargepoint related queries

Energy@Herefordshire.gov.uk

Belinda Wilson

Belinda.Wilson@herefordshire.gov.uk

Rosie Willmott Rosanna.Willmott@Herefordshire.gov.uk

Midlands Net Zero Hub www.midlandsnetzerohub.co.uk

Tim Yair Email: <a href="mailto:tim.yair@nottinghamcity.gov.uk">tim.yair@nottinghamcity.gov.uk</a>

Midlands Net Zero Hub: LinkedIn