

Update Note regarding Warwickshire's Electric Vehicle Charging

To: Communities Overview and Scrutiny Committee

1. Introduction

1.1 This briefing note provides an update to Communities OSC on the demand for Electric Vehicle (EV) charging across Warwickshire, progress to date on County led initiatives to rollout electric vehicle charging points and the benefits of EV charging.

2. Demand for EV charging points

2.1 The County Council has undertaken a piece of work to identify the position Warwickshire needs to move towards to be ready for the 2030 ban on the sale of petrol/diesel vehicles. This work estimates that, in addition to private charging points that residents will install themselves and taking account of the installations already planned, Warwickshire will need to install:

- **by 2025** - an additional 968 fast charging (7kw) sockets (484 twin headed charging points) and 291 rapid charging (22kw) sockets (145 twin headed points);
- **by 2030** (inclusive of 2025 target) - 2,758 fast charging (7kw) sockets (1379 points) and 532 rapid charging (22kw) sockets (266 points).

2.2 It is estimated that to deliver the above will cost around £6.2M.

3. Benefits of EV charging

3.1 The following benefits are associated with a continued rollout of charging points at the rate described in paragraph 2.1 above:

- Support an increased uptake of electric vehicles, from less than 1% of the vehicle fleet in 2020, up to 15% in 2025 and up to 41% in 2030;
- Reduction in emissions, with the anticipated uptake in electric vehicles delivering reductions of up to 9.6% CO₂, 17% NO_x and 36% particulate matter emissions by 2025, rising to 29% CO₂, 44% NO_x and 61% PM emissions reductions by 2035.

3.2 It should be noted that the above calculations assume an annual vehicle growth of 1.5%. This results in a 30% increase in the number of vehicles registered in Warwickshire by 2040 compared to 2019. If the number of vehicles remains static, significantly greater reductions in CO₂ can be achieved, making net-zero for Warwickshire's cars and vans possible within this timeframe. Encouraging active travel for appropriate journeys, introducing car clubs and promoting car sharing will therefore need to complement any strategy to a switch to electric vehicles.

4. Progress to date

4.1 As a result of successful bids to the Office for Zero Emission Vehicles (OZEV) and the Coventry and Warwickshire Local Enterprise Partnership, Warwickshire County Council has secured over £0.8m to install approximately 160 charging points across the County. This funding includes a 25% private sector contribution from our delivery partner, BP Pulse.

- 4.2 A summary of locations for the Phase 1 (OZEV funded) and Phase 2 (CWLEP funded) rollouts is included in Appendix 1. Phase 1 sites are predominantly in District and Borough off-street car parks, with Phase 2 focusing on on-street locations.
- 4.3 This first and second phase of EV charge point delivery will make a huge difference to the 'visibility' of a more comprehensive charging network across the County. This will go some way in reducing 'range anxiety' and encourage more of our residents to make the switch to EV.
- 4.4 The growth in total number of chargepoint devices across Warwickshire over the last 2 years is shown in Table 1 below along with the devices per 100,000 population. For comparison purposes, data is included for England as a whole, as well as for neighbouring shire and metropolitan authorities. Of significance is that Warwickshire's position compared to the England average, expressed as devices per 100,000 population, has moved from below to above the England average over the period 2020-2022.

Table 1. Chargepoints per 100,000 population

	Jan 2022		Jan 2021		Jan 2020	
	No of devices	per 100,000 popn	No of devices	per 100,000 popn	No of devices	per 100,000 popn
England	24,159	42.7	17,459	31.0	13,719	24.5
Warwickshire	278	47.6	153	26.5	116	20.3
N Warks	39	59.6	13	19.9	10	15.4
N&B	27	20.7	16	12.3	13	10.1
Rugby	58	52.4	21	19.3	4	3.7
Stratford	83	62.7	62	47.7	57	44.7
Warwick	71	49.0	41	28.5	32	22.5
Coventry	485	127.8	260	70.0	170	46.3
Solihull	123	56.6	82	37.9	56	26.1
Worcestershire	165	27.6	124	20.8	103	17.4
Leicestershire	238	33.4	145	20.5	112	16.0
Staffordshire	239	27.1	177	20.1	113	12.9
Oxfordshire	322	46.2	256	37.0	212	30.8
Gloucestershire	220	34.3	184	28.9	157	24.8

5. Usage

- 5.1 Data on usage of chargepoints in the Phase 1 rollout is shown in Table 2 below for the 3-month period October-December 2021. Phase 2 sites were only commissioned in late 2021, so usage data for these sites is not included.

Table 2. Data on chargepoint usage for Phase 1 rollout (Oct-Dec 2021)

Chargepoint location	No. of charge points (sockets)	Average charging episodes per location	Total charge time in hours	Total kWh used per location	Total Kg CO2 saved per location (358g per kWh)
Abbey End, Kenilworth	8	187	1066	2969	1039
Arden Street, Stratford	8	302	2782	5723	2074

Bedworth Leisure Centre	8	39	249	311	122
Bulls Head, Alcester	8	208	1041	2495	916
Wood Street, Southam	6	30	247	233	84
Chandos Street, Leamington	8	597	4227	10776	3801
Pear Tree Avenue, Kingsbury	8	22	278	262	101
St Marys Car park, Warwick	8	74	1076	825	305
West Rock, Warwick	8	193	2446	4413	1590
Market Place, Warwick	12	66	285	558	201

6. Next Steps

- 6.1 A countywide mapping exercise to identify those areas with the highest demand for public on-street charging has recently been carried out. The results of this mapping exercise will be used to help prioritise sites for the future rollout of chargepoints.
- 6.2 Procurement and delivery options for future phases of chargepoint rollout are currently being reviewed. No funding for future delivery has yet been identified, although it is anticipated that further bids to OZEV will be submitted alongside entering a new contract with a chargepoint supplier(s) for the delivery, operation and maintenance of chargepoints.
- 6.3 The County Council is investigating ways in which EV charging can be made easily and readily available for residents living in dwellings with no private off-street parking. A trial using the power supplied to street lights is due to commence in the early part of 2022 and will operate in two residential locations in South Warwickshire (Leamington and Stratford). Subject to the success of the trial, it is likely further charge points will be deployed in the future, subject to available funding.

Appendix A. Location of chargepoint installations

Table A1: Phase 1 - Summary of locations

Location	District / Borough	On or off-street	Number (twin-headed charging points)	Status
Market Square, Warwick	WDC	On-street	6	Operational
West Rock Car Park, Warwick	WDC	Off-street	4	Operational
Hampton Road Car Park, Warwick	WDC	Off-street	4	Operational
Chandos Street Car Park, Leamington	WDC	Off-street	4	Operational
St Peters Multi-storey car park, Leamington	WDC	Off-street	4	Operational
Abbey End Car Park, Kenilworth	WDC	Off-street	4	Operational
Bedworth Leisure Centre, Bedworth	N&BBC	Off-street	4	Operational
Pingles Leisure Centre, Nuneaton	N&BBC	Off-street	4	On hold
Pear Tree Avenue Car Park, Kingsbury	NWBC	Off-street	4	Operational
Arden Street Car Park, Stratford	SDC	Off-street	4	Operational
Bulls Head Yard Car Park, Alcester	SDC	Off-street	4	Operational
Wood Street Car Park, Southam	SDC	Off-street	3	Operational
TOTAL			49	

NB. No sites have been progressed in Rugby Borough in Phase 1 due to uncertainty over the future use of the selected car park sites

Table A2: Phase 2 - Summary of locations

Location	District / Borough	On or off-street	Number (twin-headed charging points)	Status
Binswood Avenue, Leamington	WDC	On-street	4	Operational
Guy's Cliffe Road, Leamington	WDC	On-street	2	Operational
Oaks Precinct Shops, Kenilworth	WDC	Off-street	4	Operational
Coton Road, Nuneaton	N&BBC	On-street	1	In progress
Lutterworth Road, Attleborough	N&BBC	On-street	1	In progress
High Street, Bedworth	N&BBC	On-street	1	In progress
High Street, Henley	SDC	On-street	4	Operational
Chestnut Walk, Stratford	SDC	On-street	4	TBC
Church Hill, Coleshill	NWBC	On-street	4	Operational
Station Street, Atherstone	NWBC	On-street	2	Operational
Barby Road, Rugby	RBC	On-street	2	Operational
Regent Street, Rugby	RBC	On-street	3	Operational
Lancaster Road, Rugby	RBC	On-street	2	TBC
TOTAL			34	