EV Risk Intelligence in England 2026

A national postcode-level analysis of electric vehicle infrastructure risk and demand across English local authorities

1.4M+	50,237	100	309
Postcodes Scored	EVs per Rapid (Windsor)	Max Score (Westminster)	LAs Analysed

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Executive Summary

This report presents a postcode-level analysis of electric vehicle infrastructure risk and demand across England, drawing on over 1.4 million scored postcodes across 309 local authorities. The data is derived from government and statutory sources including the Environment Agency, the Department for Transport, Police.uk, HM Land Registry, ONS, and DVLA vehicle registration data.

England presents two distinct EV infrastructure challenges. In urban centres, risk is high and deployment is complex. In suburban and rural areas, risk is low but demand is rising fast and infrastructure has not kept pace. This report introduces a new metric, EVs per rapid charger, that reframes the conversation from where it is safe to deploy to where the market is being missed.

Windsor and Maidenhead has 254,264 registered EVs, the highest EV adoption in England, and 50,237 EVs per rapid charger, among the worst rapid charging access relative to demand of any English local authority. Stockport has 202,752 EVs and 24,875 per rapid charger. Wiltshire has 70,396 EVs and 27,042 per rapid charger. These are not market failures in deprived or hard-to-reach areas. They are prosperous, high-adoption communities where commercial deployment logic has simply not followed the demand signal.

Key Findings

50,237	Windsor and Maidenhead has the highest EVs per rapid charger ratio in England.
WC2N Score 100	Westminster records the highest risk score in England, peaking at 100 in the Trafalgar Square area.
13.3 km	West Devon has the greatest average distance to a rapid charger of any English local authority.
£3.78m	Somerset secured LEVI funding in 2025, committing to 1,606 slow chargers and 20 rapids.

Methodology

Data Sources and Scoring Model

The EV Insight risk model scores every active UK postcode across 35 factors grouped into six categories: vehicle crime, flood and surface water risk, road collision history, charging infrastructure proximity, traffic exposure, and socioeconomic deprivation. All underlying data is sourced from statutory and government bodies.

Source	Data Provided	Licence
Environment Agency	Flood zone and surface water risk	OGL v3
Department for Transport	Road collisions and traffic counts	OGL v3
Police.uk	Crime categories by LSOA	OGL v3
ONS ONSPD	Postcode spine and geography	OGL v3
DVLA / DfT	EV registrations by local authority	OGL v3
HM Land Registry	House Price Index 2004 to present	OGL v3
OpenStreetMap	Points of interest and infrastructure	ODbL

A New Metric

EVs per Rapid Charger

EV Insight has developed a new metric to quantify where infrastructure deployment has failed to keep pace with adoption: EVs per rapid charger. Calculated by dividing registered EV counts by average rapid chargers within 5km at postcode level, it identifies areas where EV drivers face the greatest practical pressure from inadequate provision.

Risk scores alone cannot capture this pattern. Windsor and Maidenhead has a moderate average risk score of 6.8, far below London urban centres, yet its 50,237 EVs per rapid charger ratio is the highest in England. The market has grown far faster than infrastructure. Commercial operators deploy where risk is acceptable and footfall is high. In suburban areas with affluent, EV-adopting populations and limited high-density retail, the commercial case for rapid charging is weaker despite genuine and growing demand. Public intervention through LEVI is the only mechanism that corrects this gap.

Local Authority	Registered EVs	Avg Nearest Rapid (km)	EVs per Rapid
Windsor and Maidenhead	254,264	2.3	50,237
Wiltshire	70,396	3.8	27,042
Stockport	202,752	2.0	24,875
West Devon	1,704	13.3	17,885
Cheshire West and Chester	41,998	3.6	16,835
Peterborough	118,976	1.7	15,974
North Yorkshire	24,474	5.3	15,916
County Durham	14,994	4.8	7,812

Somerset	17,106	4.4	7,398
East Riding of Yorkshire	11,518	6.0	6,911

Table 1: Local authorities ranked by EVs per rapid charger.

Area Analysis

Key Local Authorities

Windsor and Maidenhead

Windsor and Maidenhead records the highest EV adoption in England at 28.7 percent of licensed vehicles, equivalent to 254,264 registered EVs. Yet with only 22.7 chargers within five kilometres on average and 50,237 EVs per rapid charger, it has among the worst rapid charging access relative to demand of any English local authority. The Royal Borough issued a LEVI concession tender in February 2025, splitting the borough into two concession areas and targeting a chargepoint in every village. The gap between adoption and provision is the largest in England. Carwow data published in 2026 confirmed only 157 public chargers per 100,000 EVs.

Stockport

Stockport records 202,752 registered EVs, equivalent to 25.2 percent of licensed vehicles, one of the highest adoption rates of any English local authority outside London. With 24,875 EVs per rapid charger and an average nearest rapid distance of 2.0 kilometres, rapid charging provision has not kept pace with adoption. The commuter population feeding into central Manchester relies on public charging for daily travel, making inadequate rapid provision a structural barrier to continued EV growth.

Wiltshire

Wiltshire has 70,396 registered EVs but only 9.3 chargers within five kilometres on average and 27,042 EVs per rapid charger. A large rural county with strong EV adoption driven by affluent market towns, rapid charging has not followed demand. The average nearest rapid charger distance of 3.8 kilometres understates the challenge for residents in the most rural parts of the county, where journeys to a rapid charger can exceed 10 kilometres.

West Devon

West Devon has only 1,704 registered EVs but an average of 13.3 kilometres to the nearest rapid charger, the greatest average distance of any English local authority, and 17,885 EVs per rapid charger. A rural area where even modest EV ownership creates acute charging pressure. Commercial operators will not deploy here without public subsidy. The LEVI fund exists to address exactly this pattern, but West Devon has not yet secured the scale of investment its provision gap requires.

Somerset

Somerset has 17,106 registered EVs and 7,398 EVs per rapid charger, with an average nearest rapid distance of 4.4 kilometres. Somerset secured 3.78 million pounds of LEVI funding in 2025, committing to a minimum of 1,606 slow chargepoints and 20 rapids under a 17-year concession contract. The council explicitly stated that without LEVI, rural deployment would not happen. Twenty-seven percent of Somerset properties lack off-street parking. Somerset is the model for what targeted LEVI investment looks like in practice.

Westminster

Westminster records the highest average risk score in England at 25.6, with the highest individual postcode peaking at 100 in the WC2N area covering Trafalgar Square. Despite this, Westminster has over 4,000 chargers within five kilometres on average, demonstrating that high risk and high infrastructure coexist in central London. Operators accept elevated risk in exchange for very high utilisation. The risk model identifies where mitigation is required, not where deployment is impossible.

Full Data

England by Local Authority

Selected local authorities ordered by average risk score. Red EVs per rapid values indicate over 5,000 per rapid charger. Amber indicates 2,000 to 5,000.

Local Authority	Avg Score	Max	Chargers (5km)	Nearest Rapid	EV Density	EVs/Rapid
Westminster	25.6	100	4,168	0.7 km	81,716	1,329
Barking and Dagenham	24.8	60	140	1.2 km	5,468	310
Thurrock	21.5	60	16	2.8 km	5,008	772
Hackney	19.2	52	2,611	0.7 km	3,746	64
Haringey	18.1	53	827	0.8 km	6,136	126
Basildon	17.5	55	11	2.5 km	6,804	2,238
Hillingdon	15.6	89	81	1.3 km	16,576	845
Sefton	15.4	38	48	2.3 km	7,508	2,024
Birmingham	13.3	75	200	1.4 km	20,468	1,515
Slough	12.8	47	45	1.0 km	70,298	7,413
Sheffield	9.9	59	19	1.8 km	15,668	2,212
Portsmouth	9.8	54	43	1.3 km	23,516	4,052
Peterborough	9.2	56	23	1.7 km	118,976	15,974
Milton Keynes	9.1	62	125	1.3 km	171,364	5,345
Leeds	8.9	68	45	1.4 km	112,782	6,459
South Gloucestershire	5.9	48	30	2.0 km	94,292	7,073
Windsor and Maidenhead	6.8	42	23	2.3 km	254,264	50,237
Buckinghamshire	5.2	43	19	2.9 km	27,546	6,053
Cheshire West and Chester	3.5	34	10	3.6 km	41,998	16,835
North Yorkshire	3.5	34	6	5.3 km	24,474	15,916
Wiltshire	3.5	32	9	3.8 km	70,396	27,042
Stockport	2.4	24	25	2.0 km	202,752	24,875
West Devon	2.6	25	2	13.3 km	1,704	17,885
Cornwall	2.7	28	7	3.6 km	16,358	8,696
Shropshire	3.1	28	4	6.2 km	10,376	8,071
North Norfolk	2.0	20	3	6.9 km	2,822	7,255
County Durham	6.3	38	9	4.8 km	14,994	7,812
Somerset	4.0	33	7	4.4 km	17,106	7,398
East Riding of Yorkshire	4.0	31	5	6.0 km	11,518	6,911
Swindon	4.5	35	43	1.4 km	81,262	6,576
Cheshire East	3.7	34	8	3.2 km	19,496	6,004
Dorset	3.5	39	7	3.8 km	12,872	5,113
Northumberland	4.6	37	8	4.5 km	11,346	4,047

Table 2: Selected English local authorities by risk score, infrastructure, and demand gap.

Policy Implications

Infrastructure Investment Priorities

The data in this report supports seven conclusions for transport planners, local authorities, and charge point operators active in England.

1. The demand gap is the most urgent deployment signal

Risk scores tell operators where deployment is complex. EVs per rapid charger tells them where the market is being missed. Windsor and Maidenhead, Stockport, and Wiltshire are not high-risk areas. They are areas where EV adoption has far outpaced charging provision. For operators seeking commercially viable sites with low risk and genuine demand, these local authorities represent the most significant untapped opportunity in England.

2. LEVI funding must target the demand gap, not just the rural gap

The Local Electric Vehicle Infrastructure fund is designed for areas where commercial deployment is unlikely. Somerset is the right kind of target: rural, low EV density, low commercial viability. But the data reveals a different category of underserved area: suburban local authorities with high EV adoption, moderate risk, and inadequate rapid charging. Windsor and Maidenhead, Cheshire West, and Peterborough are not rural. They are prosperous, high-adoption areas where rapid charging has simply not followed demand. LEVI allocation criteria should be broadened to capture this pattern.

3. Urban risk does not preclude urban deployment

Westminster scores 100 and has over 4,000 chargers within five kilometres. High risk and high infrastructure coexist in urban England because operators accept elevated risk in exchange for high utilisation. The risk model identifies where mitigation is required, not where deployment is impossible. Operators deploying into high-risk urban environments should use postcode-level data to inform physical security, insurance, and maintenance.

4. Rural isolation requires a different metric entirely

West Devon has 1,704 registered EVs and a nearest rapid charger distance of 13.3 kilometres. The EVs per rapid charger metric does not fully capture this: the absolute journey distance is the more relevant figure for residents who cannot reach a charger without significant detour. Local authorities in rural Devon, Lincolnshire, and Northumberland require investment justified not by demand density but by geographic equity. LEVI funding at current levels cannot close this gap without a dedicated rural rapid charging programme.

5. Procurement capability is the operational barrier

Somerset secured 3.78 million pounds of LEVI funding and is still appointing contractors. The gap between allocation and deployment reflects a consistent challenge across English local authorities: procurement processes for EV charging are complex, site selection criteria are poorly defined, and officers frequently lack the technical grounding to make confident investment decisions. Postcode-level risk and demand data gives procurement teams a defensible, auditable basis for site selection and business case development.

6. Infrastructure should follow adoption trajectory, not just current EV density

EV registrations in areas like Windsor and Maidenhead, South Gloucestershire, and Milton Keynes grew by over 25 percentage points between 2020 and 2025. Areas with fast-rising adoption today will have significantly higher demand in three to five years. Infrastructure planning that responds only to current EV density will always lag the market. Forward-looking deployment should weight adoption growth rate alongside current demand.

7. Use postcode-level data at every stage of the deployment pipeline

Risk scores, EV density, IMD decile, flood risk, collision counts, and rapid charger proximity are all available at postcode level through the EV Insight API. Operators can use this data to screen sites, model utilisation, inform insurance, and justify grant applications. Local authorities can use it to prioritise ward-level investment and satisfy procurement requirements for evidence-based site selection.

"Windsor and Maidenhead has the highest EV adoption in England and among the worst rapid charging provision relative to demand. This is not a market failure. It is the predictable outcome of commercial deployment logic applied to a geography where the demand signal has outrun the investment case."

About EV Insight

EV Insight is a national postcode-level data intelligence platform built and operated from Wrexham, Wales. The platform scores 1,792,342 active UK postcodes across 35 factors using data sourced exclusively from government and statutory bodies. All source data is licensed under the Open Government Licence v3 or equivalent. EV Insight is an ICO Registered Data Controller (ZC106985).

The platform provides API access to risk scores, infrastructure data, deprivation indices, flood risk, and collision data at postcode level. It is designed for charge point operators, insurers, local authorities, and property platforms requiring accurate, defensible location intelligence.

For API access, data licensing, or to commission a bespoke analysis for your area, contact business@evinsight.co.uk or visit evinsight.co.uk.