

On Street Variance Report

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Net-Zero Data Analytics Consultancy



Fleets

In-Transit
Charging



CPOs

Destination
Charging



Authorities

Workplace
Charging



DNOs

Residential
Charging

Fleet
Migration

SaaS BI, Spatial

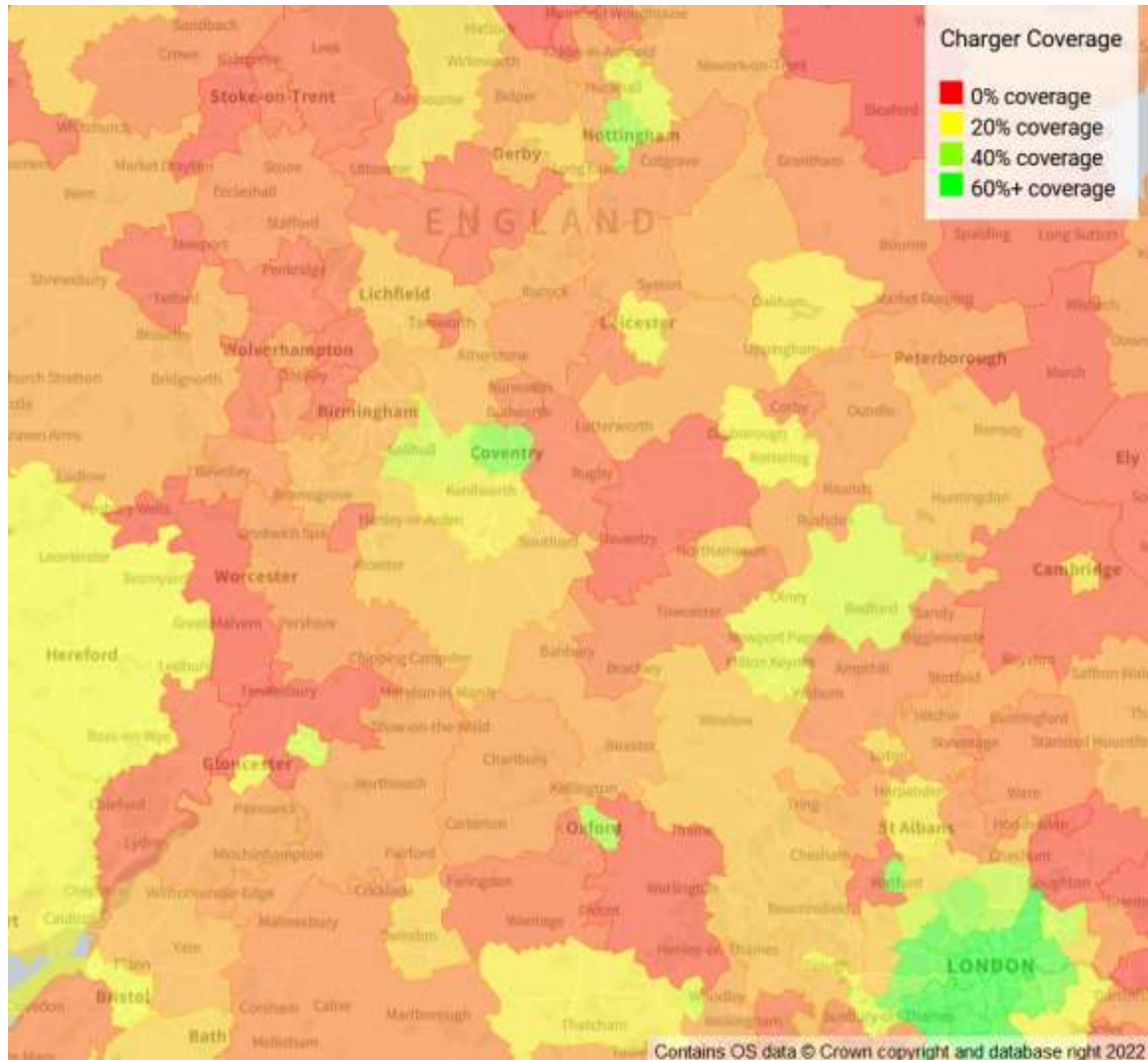
Electric Vehicle & Low Carbon
Technology Expertise

Smart algorithms and
optimisation



Accelerated Insight
Platform





Solihull District (B)



Statistics

Total population: 217,467
 Total number of households: 92,935
 Total domestic charger grants: 1,634

Public Charging

Total public charging sites: 107
 Charging sites per 1,000 On-Street households: 4.1

Variance 2020-22

On-Street Coverage	Public Charging Sites	Residential Chargers
+24.1 %	+282.1 %	+101.2 %

Households with access to off-street parking?

72% Yes Total: 66,995	28% No Total: 25,940
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On-Street households in catchment?

29% Yes Total: 7,491	71% No Total: 18,449
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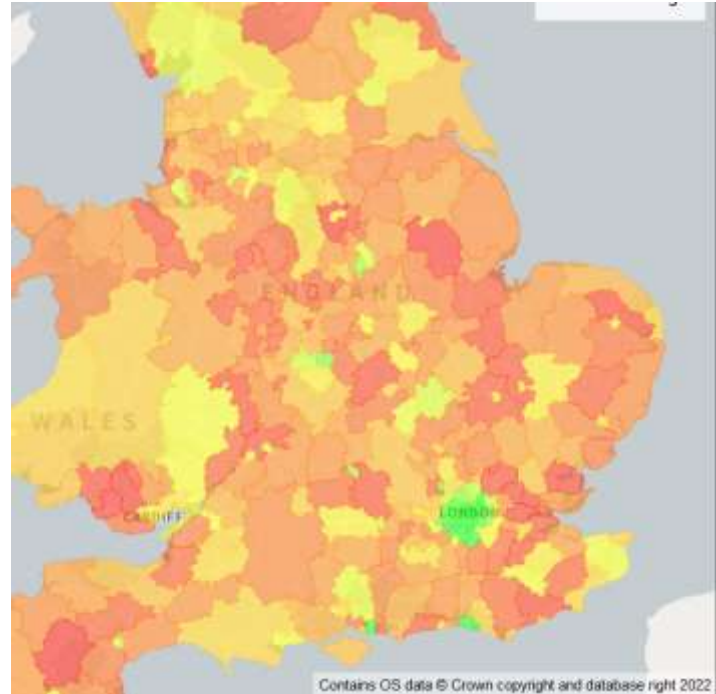
Key Findings

Coverage has improved by 42%, which is significant but not as significant as the 68% increase in ORCS chargers.

Coverage is still inconsistent with London Boroughs achieving an average of nearly 60% coverage while Metropolitan councils average less than 14%.

Increases in coverage are very inconsistent across different councils with limited evidence of any contributing trends.

EV adoption is broader than commonly perceived. 293 councils have seen an average 50% increase in residential chargers since 2020.

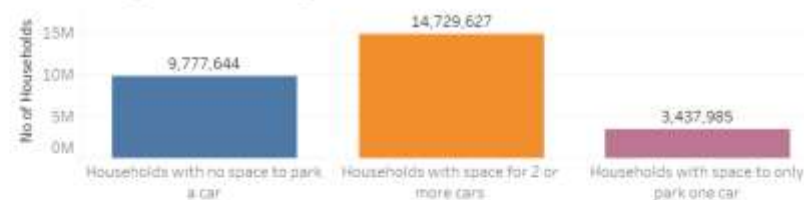


By Council type

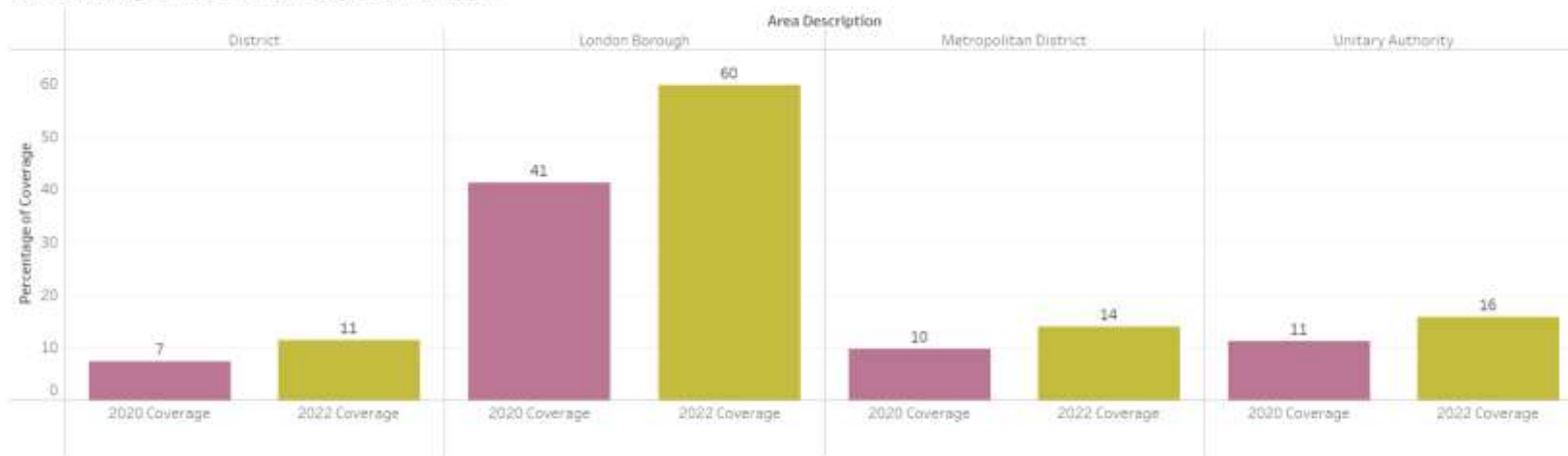
1.6 National Coverage Improvement



1.5 Parking v Non-Parking

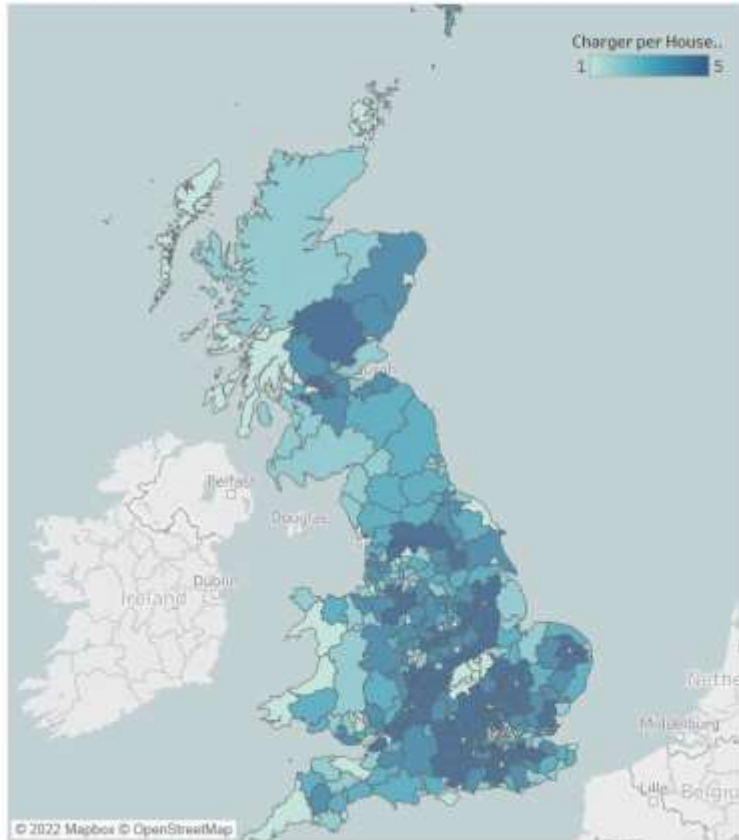


1.7 Coverage Improvement by council Type

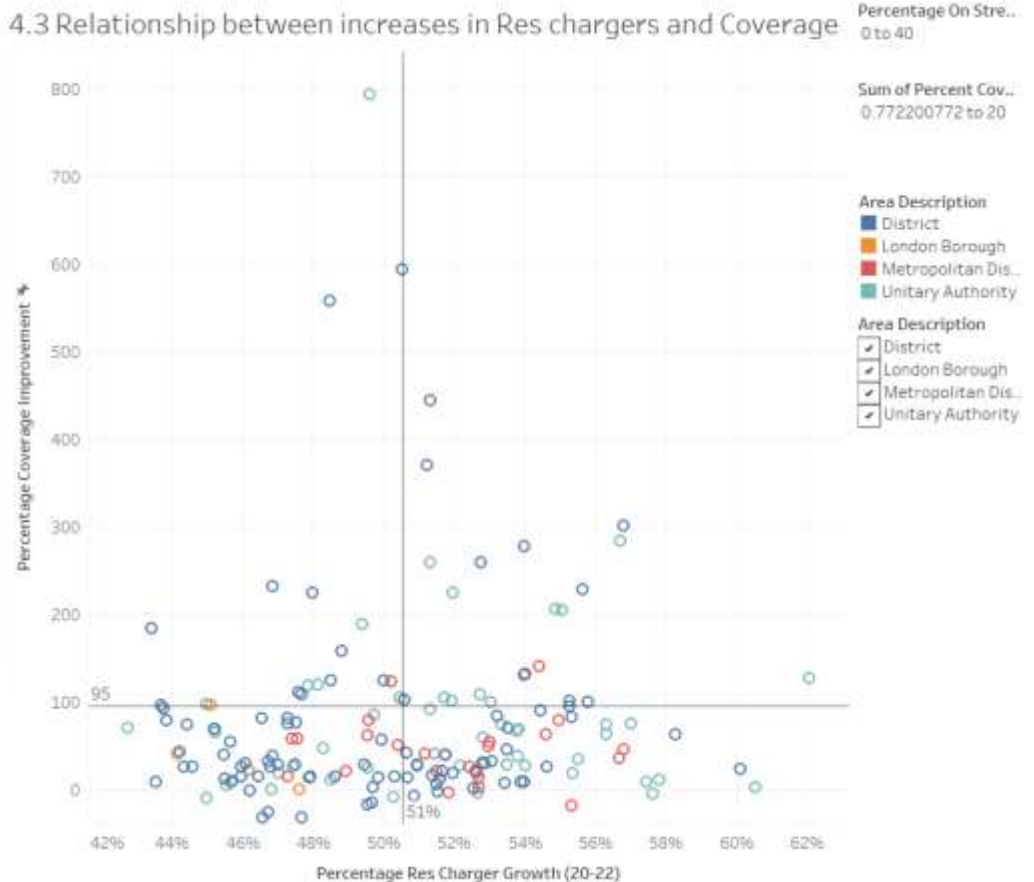


Adoption

4.2 Map of 2022 Res Charger/HouseH Ratio Quintiles

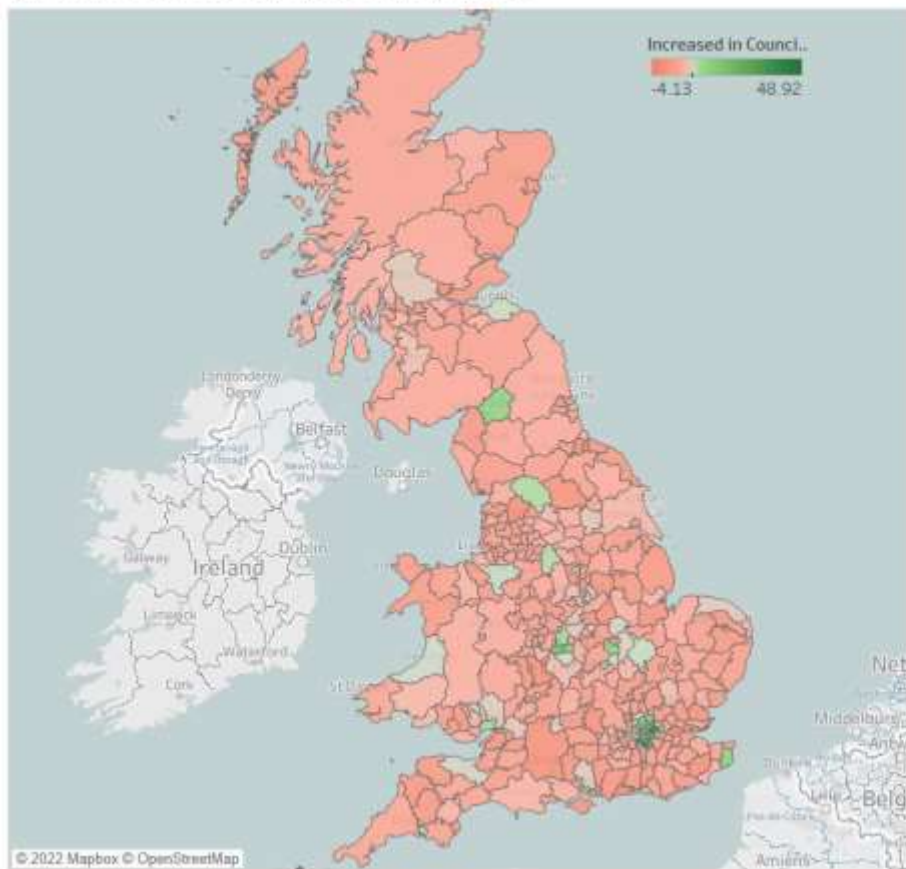


4.3 Relationship between increases in Res chargers and Coverage

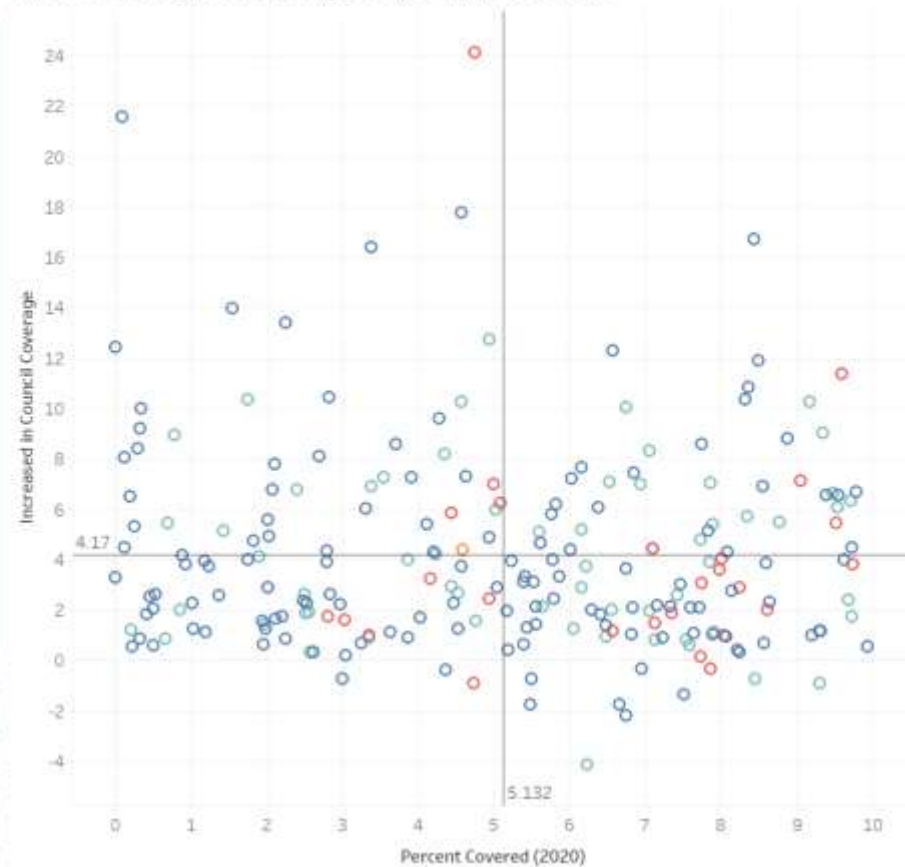


Distribution

2.5 Map of Distribution in improvement



2.6 Percentage covered (2020)v Improvement



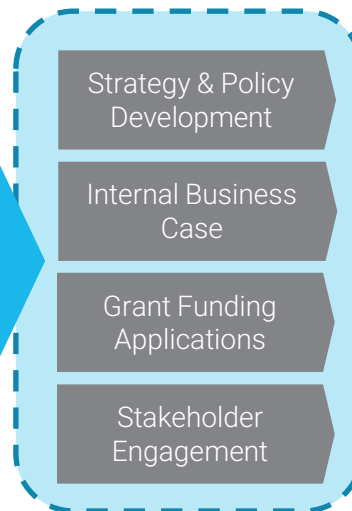
Background – An Evidence Tool Set for local authorities

We developed JumpStart after speaking to a wide range of local authorities. The key role of JumpStart is to give the authorities a head start in understanding where their EV charging demand is.

JumpStart Project



Key Activities



JumpStart Evidence Foundation - national, local and comparative data

Demand Zoning

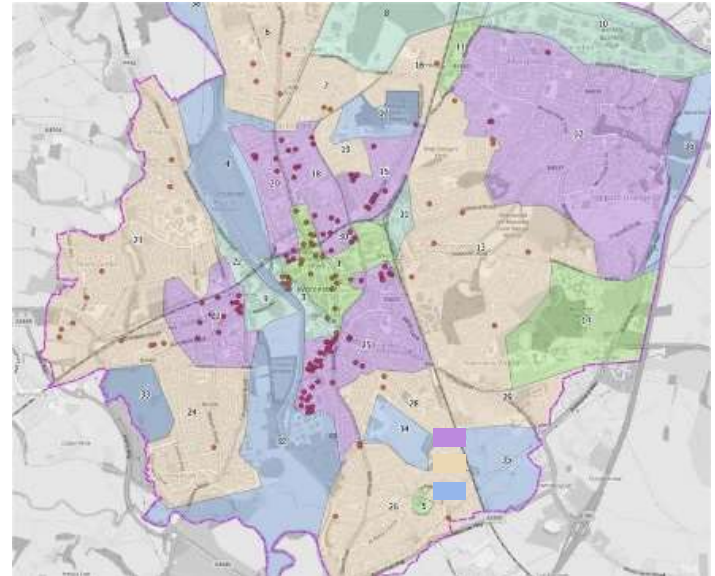
Not all areas within your Council require the same level of support.

Areas with high levels of Off-Street parking will require considerably less support than dense areas with predominantly On-street parking (Public Need). There are also areas with neither of these characteristics, Minimum Need, that need to be identified. Visitor areas show tourist areas and Commercial zones where the private sector will provide a high level of charging.

A robust dataset needs to differentiate these areas so that services and investment can be focussed accordingly.

Outputs:

- A set of zones for your authority
- A data set that details the characteristics of each zone that can be loaded in to CatchmentModeller and your own GIS



Zone definitions

Off-Street

Zones where the properties are predominantly residential and predominantly have access to off-street parking and charging

Public Need

Zones where the properties are predominantly residential and predominantly **do not** have access to off-street parking and charging. These residents will need to rely on public infrastructure

Commercial

Zones where there is a high percentage of commercial and retail units that could be expected to deliver charging on their own.
E.g. Supermarkets

Visitor

Zones where we should expect a high level of visitor traffic, who could be charged a differential amount for charging

Minimum Need

Zones where there is minimal residential or commercial activity and so need attract minimal investment

CatchmentModeller

Deliverables - Workshop and Excel workbook

As the hosting platform for the data, we will provide access to our CatchmentModeller solution.

The zones (Public Need, Off Street, Commercial, Visitor and Minimum Need) for each authority will be loaded into CatchmentModeller.

You will have access to your zones to select sites for future scenario modelling and funding applications

A Workshop will provide guidance on using the tool and the methodology behind creating numerous charging scenarios.

You can save as many scenarios as needed and project charging scenarios based on date or specific locations.

Sites are output in a schema optimised for funding applications.



<https://solihull.acceleratedinsightplatform.com/dashboard/projects>

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Field Dynamics – Local Gov - Net Zero Projects

EV-Up!



Role: Creation of EV adoption methodology and platform model to simulate residential EV demand uptake across LV network infrastructure. Nominated for **Data Project of the Year** at UK Network Awards. Project extended to model decarbonisation of heat assessing technology and legislative scenarios.



Baringa / EDF Renewables



Role: Detailed comparative site profiling analysis of current and proposed sites for roll out as part of work for EDF's investment into Pivot Power. Work included a repeatable model to consider a number of demand and utilisation parameters for local and remote demand.



Charge Point Site Optimisation



Role: Create a model to assess optimal zones and areas for Charge Point Locations across the Borough

Looking to optimise where there will be suitable on-street demand for public vehicle charging.



On-Street Households EV Research



Role: National study of the comparative level of on-street residential charging across non-London local authorities.

Analysed 24m households, 7,652 charger sites and compared results across 335 local authorities.



EV UP – Press Release



EV Up, a partnership project between **SP Energy Networks** and **Field Dynamics**, has been shortlisted for **Data Project of the Year at the Network Awards 2020**. Created by the team behind industry magazine Network, the annual Network Awards show honours the people, projects and innovations that are changing the shape of the energy industry.

Field Dynamics has worked with SP Energy Networks to develop the EV Up tool on its Accelerated Insight Platform. Output from the model will allow the network operator to better understand where demand for electric vehicles will come from so that it can plan and prioritise investments in network resilience. The tool will help SP Energy Networks enable communities across the UK to support Government targets on climate change and ultimately deliver a low carbon society.

Charlie Gilbert, Partner at Field Dynamics, said: “We are really proud to have been shortlisted alongside other leading data projects in the sector. Our EV adoption methodology combined with the power of our cloud intelligence platform is enabling access to a completely new tier of insight.”

Nicol Gray, Senior Project Manager at SP Energy Networks, said: “We are delighted to have been shortlisted for a Network Award and are really proud of what our EV Up project is set to achieve. At a time when decarbonisation is high on the agenda, we are ready to play our part in delivering against net zero targets, which projects like this are critical to.”

