Strategic transport and scenario planning

Solutions for public EV charging

"ConnectMore" online connection tool

PROJECT PARTNERS

A subsidiary of SP Energy Networks, SP Manweb operates the electricity distribution network in the former Merseyside and North Wales Electricity Board area where the project will take place. The SP Manweb licence area covers Merseyside, North Wales and parts of Cheshire and North Shropshire.

Whilst the initial project work will be focused in our Manweb area, the future aim will be to roll the learnings out across our SP Distribution network and across the rest of the UK.

WHERE

We are SP Energy Networks, part of the Iberdrola Group, leaders in sustainable innovation. As a Distribution and Transmission Network Operator we keep electricity flowing to homes and businesses throughout Central and Southern Scotland, North Wales, Merseyside, Cheshire and North Shropshire.

We do this through the network of overhead lines and underground cables which we own and maintain.

Our three regulated electricity licences are:

- SP Transmission (SPT)
- SP Distribution (SPD)
- SP Manweb (SPM)

Our aim is to deliver a safe and reliable electricity supply 24 hours a day, 365 days a year whilst providing exceptional value for money.

WHO ARE WE?

Charge will accelerate the deployment of public charging infrastructure by bringing together expertise from transport planning, the electricity network and charging solutions. The project will provide insight into where electric vehicle charge points may be needed, and how their use will impact the electricity network.

While it is expected that the majority of EV charging will take place at home and in the workplace, these will still be a need for off-street and public charge points. These charge points may be required by those who do not have a driveway – e.g. those who live in flats, apartments or terraced houses. Charging facilities are likely to also be required at public destinations such as leisure and shopping centres, tourist attractions, or filling station forecourts.

The project will allow a better understanding of the network impact of different types of charge point, taking into account location, the hardware installed, use patterns and whether flexible connection arrangements can be used.

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CUSROMER BENEFITS

Project Charge will:
• Help to develop a new ground-breaking solution for connecting EV charge points to the electricity network in a way that balances network capacity and the needs of the motorist.
• Identify prime locations charge points are likely to be needed.
• Develop an online connection tool that will allow users to assess and select the most appropriate locations for charge points – reducing the administration necessary to connect new charge points and making the roll-out of charging infrastructure more efficient for all concerned.
• Will allow expansion of the charging infrastructure network at the most sensible locations for the needs of the EV motorist.

TIMESCALE

September 2019
Identify suitable EV connection solutions for different locations
Delivered by Smarter Grid Solutions (Method 2 – Tactical Solutions for Public Chargepoints):
• Identify areas of high EV growth requiring on-street, destination and en-route charging; and analyse the impact this will have on the electricity network.
• Consider a range of conventional and smart charging solutions, with the aim of determining the lowest lifecycle cost options for different locations.

December 2020
EV demand scenarios
Delivered by PTV Group (Method 1 – Strategic Transport and Scenario Planning):
• PTV’s state of the art transport planning software, Visum, will be used to map out the future electric transportation needs in the SPM License area to 2050.
• Working closely with key stakeholders, the model will provide an evolving picture of EV usage considering a range of uncertain futures, helping SP Energy Networks future-proof their network.
• This work will feed into the selection of trial sites for Method 2 and delivery of ‘ConnectMore’ tool (Method 3).

June 2021
Limited trial completion
Delivered by Smarter Grid Solutions:
• Working with a focused group of stakeholders, selected smart charging solutions will be trialled over a period of 12 months with key learnings of the trial feeding into the development and design of the broader trials to follow.

June 2022
Broad trial completion
Also delivered by Smarter Grid Solutions:
• Working with a large volume of stakeholders, a range of smart charging solutions will be trialled over a period of 12-18 months. The key learnings of the trial are aimed to benefit a range of stakeholders including other DNOs, Chargepoint manufacturers and EV customers.

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