

North Lanarkshire Council Report

Environment and Transportation Committee

approval noting

Ref

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EV Charging Infrastructure Strategic Partnership

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Executive Summary

This report outlines an innovative ground-breaking £7.5M Strategic Electric Vehicle (EV) Charging Partnership with Transport Scotland, Scottish Power Energy Networks (SPEN), North Lanarkshire Council and South Lanarkshire Council.

The work will provide a scalable trial to demonstrate a Universal Strategic Public Charger Network to facilitate Scottish and UK Government NetZero ambitions at lowest cost. Proposals will see the Council develop and implement at an accelerated pace, an efficient network of community chargers across North Lanarkshire offering universal community access.

Recommendations

It is recommended that the committee:

- Approves the development and implementation of EV Charging Hubs across North Lanarkshire in partnership with Scottish Power Energy Networks, Transport Scotland Ltd and the Scottish Government.

The Plan for North Lanarkshire

Priority Improve North Lanarkshire's resource base

Ambition statement (11) Increase economic opportunities for adults by understanding, identifying, and addressing the causes of poverty and deprivation and barriers to financial inclusion

1. Background

- 1.1 North Lanarkshire Council has been selected as one of two Local Authority delivery partners to pilot a new and innovative partnership approach to the provision of clean energy for transport. The combination of North and South Lanarkshire as the pilot area represents the most populous area, ideally located in Central Scotland.
- 1.2 Working in partnership with the Scottish Government, Transport Scotland, Scottish Power Energy Networks and South Lanarkshire Council, proposals will be developed to procure, site and install an efficient network of community chargers across the Lanarkshire's.

2. Report

- 2.1 This report outlines the key principles, objectives and benefits of the proposals of the partnership project to North Lanarkshire. It is well understood that in order to meet Scotland's 2032 ambition, EV charging and migration to electric powered vehicles is a key delivery component. Accelerated uptake in Scotland could see around 700,000 electric vehicles on the road in our region by 2032, from a current baseline of 11,000.
- 2.2 This proposal presents multiple benefits to North Lanarkshire in relation to Carbon Reduction, tackling barriers to financial inclusion and connectivity within communities and providing opportunities to enhance the Ambition within The Plan for North Lanarkshire.

Project Principles and Objectives

- 2.3 The proposal aims to procure 220 chargers across North and South Lanarkshire at 37 locations to be identified across the geographic area. Research has identified the optimum configuration of chargers to be the provision of 58 Fast (dual socket) and 162 rapid chargers.
- 2.4 The 220 Fast and Rapid Chargers will be incorporated within 15 Medium size hubs utilising SPEN Low Voltage connections and 22 Large size hubs utilising SPEN High Voltage connections. Appendix 1 illustrates proposed hub configurations.
- 2.5 The chargers will be sited out with areas where EV charging is already being pursued by other large multi-national providers on a commercial basis. The principle of this rollout is to provide access to communities traditionally challenged with transport connectivity and availability of low carbon technology.
- 2.6 Appendix 2 illustrates the key project focus for this proposal rollout. To support the rollout SPEN plan to fund the optioneering phase, leverage existing and new innovation projects to accelerate project progress and utilise the green Energy Fund (GEF) to fund community transport and public transport projects to supplement the trial.

Rollout and Timescales

- 2.7 An optioneering study is underway to determine optimum community based charging hub locations to minimise the cost of physical access to customers, minimise construction costs and ensure network availability. SPEN's sub-station network will be overlaid with mapped and identified community based assets of the Council to provide an indication of the most suitable locations.

2.8 The rollout will be carried out at pace with the aim of:

Achieving Pace / Scalability

- Increasing the number of public chargers in Lanarkshire by 220 by Dec 2020, and
- Delivering a 25% increase in public chargers in Scotland within a 6 month period.

Optimising Efficiency

- Optimising locations to minimise cost for customers to access
- Priming the market

Developing Universal Community Access

- Case studies developed in rural, suburban & urban corridor locations
- Delivering solutions where the commercial market will not deliver

2.9 In terms of timescales the project has four key phases:

Phase 0 May – July 2019	Framework Definition	Complete
Phase 1 August – October 2019	Set Up and Optioneering	Complete
Phase 2 Nov 19 – March 20	Design, Planning and Procurement	On-going
Phase 3 March 20 ongoing	Site preparation and installation	

3. Equality and Diversity

3.1 Fairer Scotland Duty

The Fairer Scotland Duty does not apply.

3.2 Equality Impact Assessment

Not required.

4. Implications

4.1 Financial Impact

Other than Officer time, the scheme is funded by Transport Scotland and delivered by SPEN. Negotiations are underway with Legal regarding long term maintenance.

4.2 HR/Policy/Legislative Impact

None.

4.3 Environmental Impact

In Scotland, transport accounted for the largest portion of net emissions in 2017. The proposals within this report would realise a positive environmental impact as the introduction of EV Charging infrastructure would actively encourage the use of EVs and thereby reduce the number of polluting vehicles in North Lanarkshire's communities. With the decarbonisation of the electricity grid, the reduction in carbon emissions within the area would continue to increase and thereby be in line with the council's own climate emergency declaration as future EV emissions in principle would equate to zero.

4.4 Risk Impact

The funding of future energy consumption.

5. Measures of success

- 5.1 Availability of EV Charging infrastructure within communities bringing more low carbon journeys, contributing to the local economy and improving connectivity and routes to works within some of the least accessible and most deprived communities of North Lanarkshire.
- 5.2 Improved EV Charging infrastructure across the Local Authority.
- 5.3 Improved opportunities and links to wider Council transport initiatives and modal shift including active and low carbon travel.

6. Supporting documents

- 6.1 Appendix 1 – Proposed hub configurations (courtesy of SPEN)
Appendix 2 – Key project focus (courtesy of SPEN)



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Proposed hub configurations (courtesy of SPEN)

Large Charging Hub



Medium Charging Hub



Key project focus (courtesy of SPEN)

