CHARGE MY STREET

Business Plan supporting the Charge My Street Share Offer

February 2020

CHARGE MY STREET LIMITED

A Community Benefit Society registered with the FCA number 7704

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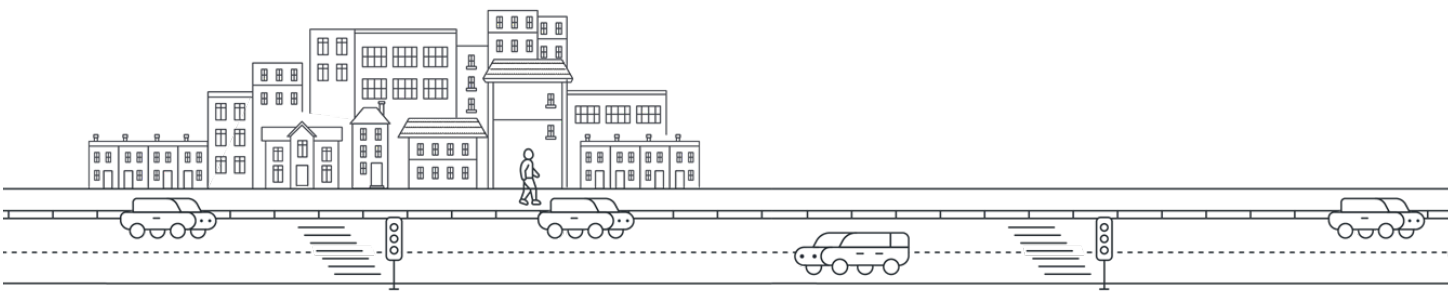

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1. Executive Summary

1.1. The Business

Charge My Street is a community benefit society that installs electric vehicle (EV) charging points for homes without off street parking. Most owners charge their electric vehicles overnight, so we use parking spaces that tend to be empty at night for charge points. Residents pay Charge My Street to fill up their electric vehicle's battery.

1.2 The Challenge

The requirement for EV charging will expand markedly over the next 10 years as prices of vehicles drop and range improves. Governments, the car industry and councils have identified that electric vehicles can tackle rising air pollution and greenhouse gas emissions. However, a lack of charging points is holding back the adoption of electric vehicles.

1.3. The Solution

Charge My Street is working with site owners from the public, private and community sectors to provide local residents with points to charge their electric vehicles overnight. Schools, shops, village halls, community centres, churches, scout huts, pubs and a host of other sites have car parks which are empty overnight. By installing charging points in these venues, local people and visitors will be able to charge up their electric vehicles overnight.

1.4. The Benefits

- More people switching to EVs will lead to improvements in air quality, reduced traffic noise and reduced greenhouse gas emissions.
- With greater availability and visibility of chargepoints, residents are more likely to consider switching to an EV.
- By building chargepoints where there is demand from local people, there is a better chance that chargepoints will go into places where they are most needed.

1.5. The Investment

Charge My Street is looking for investment of £130,000 to provide cashflow support during grant-supported expansion of the society and thereafter to provide the capital for additional chargepoints. Charge My Street has been awarded £335,000 of grant funding from Innovate UK. If insufficient funds are raised to provide upfront funding for the grant-funded chargepoints Charge My Street will seek short term loans to bridge this gap.

2. Introduction

2.1. This Document

Access to charging points is a key factor in the adoption of Electric Vehicles (EVs). This business plan sets out an innovative community owned model for rapidly funding, installing and operating chargepoints in areas where potential users do not have access to off street parking. It covers the period between January 2020 and November 2020. This is the period for the initial scaling up and installation of chargepoints.

2.2. Charge My Street

Charge My Street is a community benefit society that installs electric vehicle charging points for homes without off street parking. Most charging happens overnight so we use car parking spaces that are empty overnight to charge up electric vehicles. The Society has successfully installed four chargepoints in Lancashire and Cumbria.

The Society:

a) Installs & operate charging points around Lancaster and Cumbria.

b) Gives people the tools to locally finance a community chargepoint.

c) Encourages the take up of electric vehicles, allowing people to save money on fuel costs;

d) Reduces air pollution and CO_2 emissions.

e) Explores storage of renewable energy and integration with renewables to reduce reliance on fossil fuels.

2.3. Background

In Spring 2017 Daniel Heery applied for funding from Innovate UK's Infrastructure Fund Round 2 which lead to the establishment of Charge My Street. This paid for an initial four chargepoints which were successfully installed. There was an appetite to further develop the network and more Innovate UK Funding was secured through their On Street Charging Competition for the SOSCI project – which aimed to scale up community investment in EV charging points.

Charge My Street was established as a Community Benefit Society in January 2018 and raised funding through community shares and grants to install four chargepoints (two in Cumbrian villages and two in Lancaster). Installing and operating these chargepoints has provided an insight into usage patterns, operating issues, challenges and opportunities. The Society has been awarded funding from Innovate UK to install a further 100 chargepoints through the Scaling On Street Charging Infrastructure (SOSCI) project working in partnership with Cumbrian Local Authorities and our suppliers (see Appendix 8 and www.sosci.co.uk for more information). Feasibility studies were carried out in Q1 2019 and the project started in Q4 2019. It is set to complete at the end of Q1 2021. Key learning points from our experiences so far are:

- There is a big role to educate people before they buy an EV (charging, range, costs) and after (where to charge, how to charge, types of chargepoints etc)
- Demand builds slowly as residents want to see a chargepoint available before buying an electric car.
- Supply of new and used EVs is limited and this has slowed their uptake – waiting times are relatively long.
- Agreeing contracts with site owners is time consuming as there are often multiple parties that need to be consulted.

These have been addressed by working with Cumbria Action for Sustainability (www.cafs.org.uk) to engage communities and to increase awareness. This has involved reaching out to village halls, Housing Associations and renewable energy groups.

2.4 Track Record

The society has 33 members (32 investors and an ordinary member). Of these investors 23 are from Lancashire, 5 from Cumbria and 5 from other parts of the UK. They invested £19,003 in the first share offer, which was launched on 24 February 2018.

The society has developed systems to enable citizens to suggest chargepoint sites. Up to 20/12/19 there were 673 charging sessions at the four chargepoints, delivering a total of 5340kWh of energy to 38 different customers. The management of the installation process has improved and agreements have been reached with electricity supply companies to speed up the installation of chargepoints.

The Community Benefit Performance can be found in section 7.8.

2.5 Future Plans

Charge My Street's vision is for every home to be within 5 minutes' walk of an EV charging point. This will support the adoption of EVs among residents of flats and terraced houses without their own driveways. The Directors feel that the Charge My Street approach could be attractive to communities across the UK.

The Society is testing out scaling up community owned chargepoints in Cumbria and Lancashire with support from grant funding. Expanding the network of chargepoints will have an impact on members' ability to withdraw share capital as the Board may decide to invest profits in expanding the network of chargepoints beyond those funded by the SOSCI project.

3. The Business Model

3.1. The Challenge

- The requirement for EV charging will expand markedly over the next 10 years as prices of vehicles drop and range improves.
- Local Authorities are stretched due to cutbacks and have limited capacity to organise on-street charging points because of the number of permissions required and planning restrictions.
- Alternatives are

1) run a power cable across the pavement between the home and car – this is a trip hazard and against highways regulations.
2) use a rapid charger at a destination like a motorway services (this may require a special journey)

3.2. The Need

- 40% of homes nationally are in flats and terraces, which do not have a driveway where they can plug in a vehicle. In parts of Cumbria, many villages have terraced streets with a lack of off-street parking.
- Lack of nearby charging points is slowing take-up of EVs by these households. Our survey work (See Appendix 6) showed that access to chargepoints was the biggest barrier to adoption of EVs (over 70% of respondents). According to the "On the Move Report"[1], interviewing respondents across four EU countries, 40% of respondents cited this reason (after vehicle purchase cost, at 47%).
- The chargepoint network in Cumbria is patchy outside larger towns – see https://www.zap-map.com/ for current coverage.
- The North West, has 7.4% of the UK's chargepoints but is the third most populous region in the UK (after South East and London), with 11% of the population[2].

[1] https://www.onthemove.eu.com/

[2] https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/lowersuperoutputareamidyearpopulationestimates

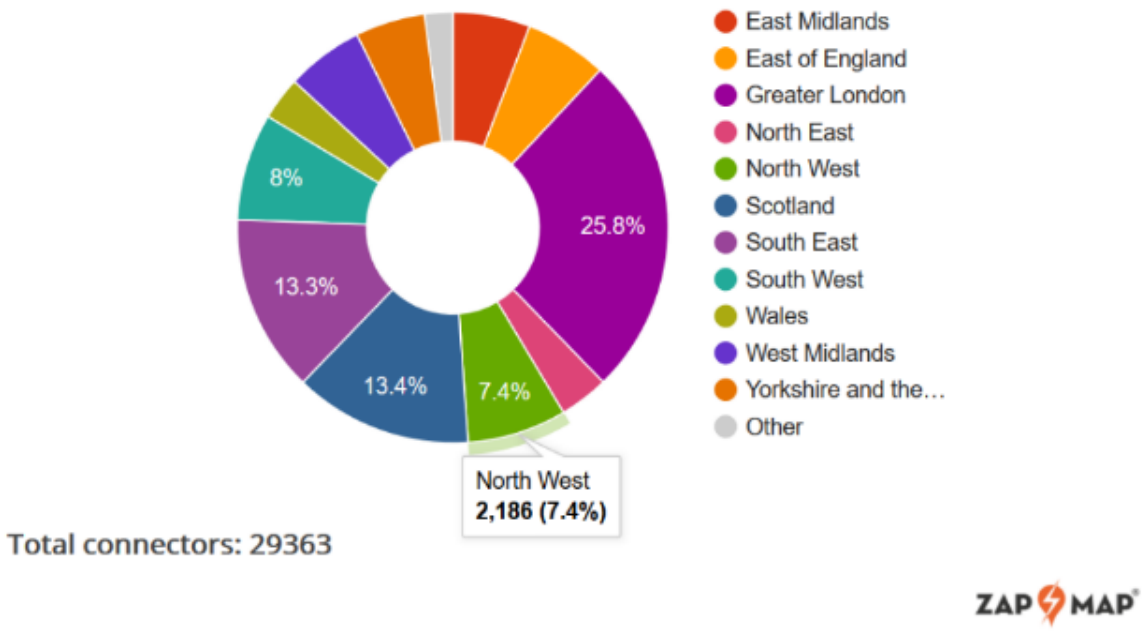


Figure 1 - Profile of charging connectors across the UK regions: Zap-Map, December 2019

4. Target Community

As part of the SOSCI project, Charge My Street, with renewable energy organisations such as Community Energy Cumbria, Burneside Community Energy and Morecambe Bay Renewables, will deliver chargepoints on the West of the Pennines in Cumbria and Lancashire, targeting the domestic residential EV charging market particularly those households with no off street parking.

4.1. Community Demographic

30% of homes in the UK have only on-street parking, so are unable to install a home chargepoint. Flats or terraces in South Lakeland District make up 18,331 of the housing stock, with most lacking their own parking space.

Currently 75% of EV owners are aged 39-69 with an average age in the mid-40s. They are split 89%/11% male/female. 72% are in the DfT segment "Educated suburban families" with a majority having an income over £35K and a quarter an income over £60K. In terms of Social Grade a third are AB and 25% are C1. Motivations of the target segment are:- a desire to save money, interest in new technology and pro environmental attitudes. (From Uptake of Ultra Low Emission Vehicles in the–UK - A Rapid Evidence Assessment for the Department for Transport, 2015). Private owners charge their EVs primarily overnight at home and currently have a strong preference for doing this rather than using public or workplace charging. Forecast EV sales for South Lakeland are 120 in 2020 (50% increase on previous year).

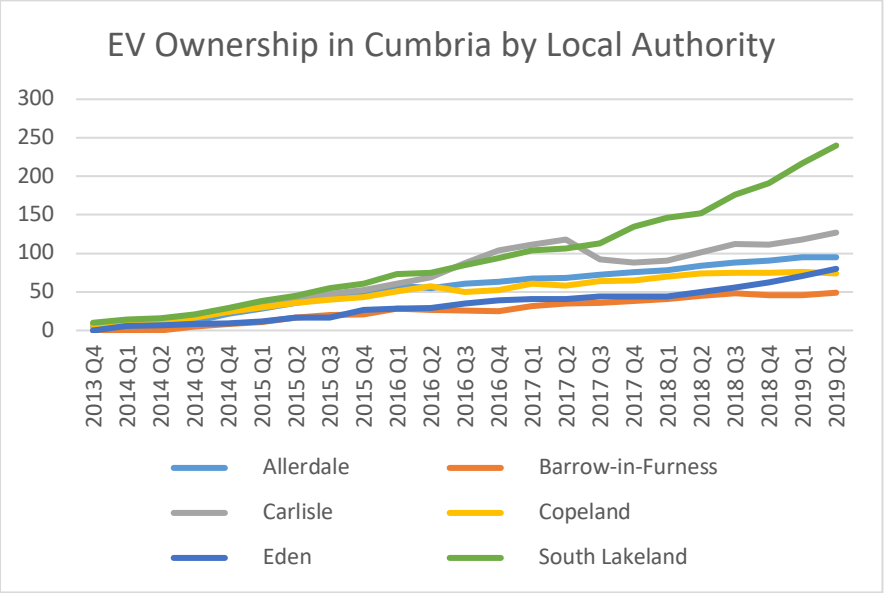


Figure 2 - EV owners in Cumbria by Local Authority

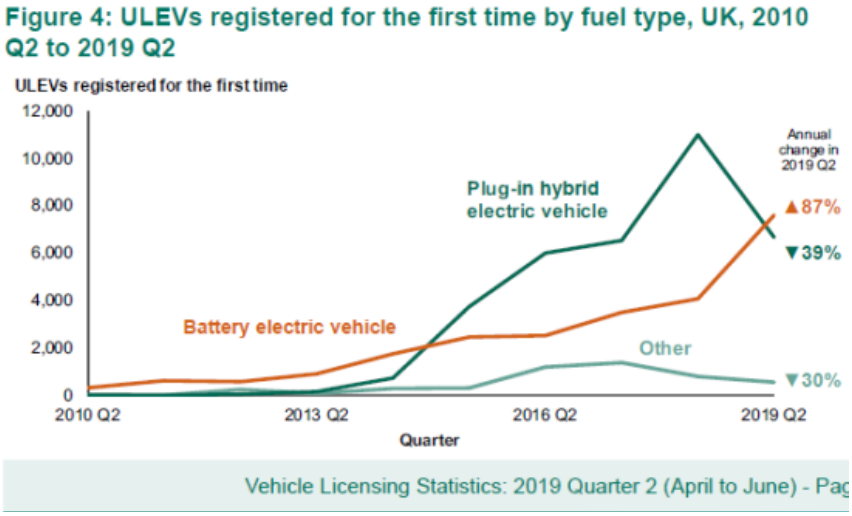


Figure 3 - ULEVs registered for the first time by fuel type, UK, 2010 Q2 to 2019 Q2
https://www.gov.uk/government/statistics/vehicle-licensing-statistics-april-to-june-2019

In line with the London Boroughs and Transport for London report by WSP and Parsons Brinckerhoff[3], we forecast that 10% of new EV owners in target areas will need our solution increasing year on year as EV demand rises.

There are currently 10,400 public charging locations (Zapmap) in the UK. There are 2168 in the North

[3] WSP | Parsons Brinckerhoff (2017), A REVIEW OF OPTIONS FOR CHARGING AT HOMES WITHOUT OFF-STREET PARKING ELECTRIC - FINAL REPORT - A Consortium of London Boroughs and Transport for London – including Hackney, Haringey, Kensington & Chelsea, Brent, Greenwich, Merton and Hounslow

West and 1067 in the North East[4]. By 2030 it is estimated that there will be 13.6 million EVs in the UK (Committee on Climate Change). If 20% are early adopters using on street charging, then that represents 2.7 million households.

Other markets that could be developed are around vehicle-to- grid (V2G), where stored energy is supplied back into the grid with members receiving a revenue share on profits that are made. This is currently outside the scope of our work as the capital cost of a V2G home chargepoint (~£2K) does not make them commercially attractive for the annual revenue generated (~£300)[5].

4.2. Community Engagement Plan

Since spring 2019, Charge My Street has been engaging with organisations across the community, public and private sector to gauge their views on the Charge My Street concept. A full list of those organisations is shown in Appendix 7. As the share offer develops, it will be promoted to groups around the region, working with local partners like Cumbria Action for Sustainability (CAfS), and ACT Cumbria.

5. The Society and its People

5.1. Legal Structure

Charge My Street was registered as a Community Benefit Society in early 2018. It has a Board of volunteer Directors. There is a standing invitation for new members to join the board and it is hoped that as more chargepoints are deployed in the future, more people will come forward. The rules of the society are available on its website, www.chargemystreet.co.uk.

5.2. Governance

The board comprises of six members with a mix of skills covering project management, technology, community development, infrastructure, fundraising and business planning (short descriptions of board members and their relevant skills are available in Annex 1). The board meets monthly.

Directors were elected by the members at the first AGM, which was held on 26 November, 2019. In accordance with co-operative principles, each member has one vote at general meetings, regardless of the number of shares they own.

[4] https://www.zap-map.com/statistics/#region recorded on 3/12/19

[5] Meeting with EA Technology November 19

5.3 Board & Manager Competences

The Board is made up of is made up of volunteers who are passionate about EVs and the transition away from fossil fuels. They have a background in project management, funding, energy management, renewable energy, engineering and software development (see Appendix 1 for Biographies)

The team developing Charge My Street includes people employed by Charge My Street and people employed by our partner organisations.

Adrian Powell is managing the SOSCI project for Charge My Street (see Appendix 4). His role involves finding sites, managing the delivery partners and setting up site owner contracts. He has a background in delivering projects on autonomous vehicles and has been a volunteer on village hall committees and a local foodbank.

Axel Fensom is developing the website platform to manage the site identification, demand stimulation & aggregation and community shares. He recently graduated from university with a First Class Honours in Physics.

Daniel Heery is supervising the Charge My Street team. He is a Director of both Cybermoor and Charge My Street.

Kevin Wood (Cybermoor) – is managing the Innovate UK funding on the SOSCI project.

6. Charging Points

6.1. Locations

Locations of current and intended future chargepoints are shown on the map at www.chargemystreet.co.uk An extract showing the locations in Cumbria can be seen on the right.

Selected sites need to sign a hosting agreement with Charge My Street. This has a peppercorn rent of £1 per year (reviewed annually) and times when members can use the parking spaces adjacent to charging point. It does not give Charge My Street complete control of the parking place. The details of the agreement vary from site to site depending on the nature of the organisation. The template agreement can be downloaded from the Charge My Street website in the "Get Involved" section.

Sites need to meet a set of criteria before investment is confirmed:

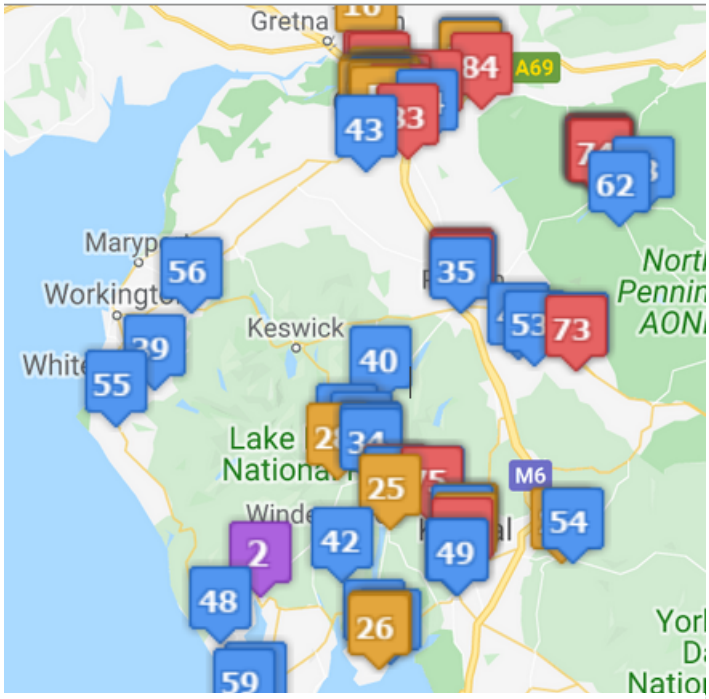


Figure 4 Sites in Cumbria. Red sites have been rejected, Amber are under investigation, Blue have been proposed and purple are working.

a) Technical – availability of suitable electricity supply and internet connectivity.

b) Commercial – local demand.

c) Community – signed agreement and commitment to support availability of parking spaces.

The website indicates which other locations have been considered and the different development stages each location falls into:

1) Site has been proposed.

2) Site is under investigation.

3) Site is open for investment.

4) Investment total reached and equipment installed / in the process of being installed.

5) Site is available for use.

6) Site has been rejected.

Charge My Street works with local Chargepoint Champions that want a chargepoint installed in their neighbourhood. They suggest the sites, reach agreement with the site owner and then help to promote the project to their friends and neighbours to raise the share capital to deliver the charging point.

6.2. How it Works

The members of Charge My Street can use the chargepoints at a lower cost than non-members, through use of a phone app. Non-members can also use the chargepoints as long as they are available (visible on the app). For non-members the transaction is managed by EO so they have to pay a higher price.

Example - Maxine decides that her car needs to be charged up ahead of a trip to Preston the following day. She checks her local chargepoint is free that night using the EO app on her phone and books a space. In the evening she parks at the chargepoint and plugs in her car. She uses her phone app to start charging. She collects her fully charged car the following morning. The money is taken from her account at the end of the month and she can view how much electricity she has used.

7. Project Delivery

7.1. Marketing

The service will be marketed to potential users through:

- A launch event to promote the benefits of EVs.
- Presentations at events around Cumbria and County Durham.
- Social media and website.
- Local press, radio & TV coverage.
- Leaflets and information provided to EV dealers in the area so they can promote the charging points to potential customers.
- Knocking on doors and leafleting areas around chargepoints to explain the service.

There will be an initial marketing push to promote the share offer followed by a strategy to drive use of chargepoints in years 2-5. The marketing will target a distinct segment – those people without off street parking who are considering purchasing an EV and are within 5 minutes' walk of a chargepoint (see Appendix 5 has more details). Targeted ads through social media, leaflet drops on car windscreens and events will be the preferred way of growing the use of the early chargepoints. Local EV dealers will be briefed on locations for chargepoints to promote the benefits to potential EV customers who are unsure of their charging options.

7.2. Capital Costs

The main components of the capital costs are:

1) Installation of new electricity supply from Electricity NW (not necessary where the existing supply to a building is suitable).

2) Wiring from the meter board to the Chargepoint.

3) Feeder Pillar – cabinet containing the meter and RCDs.

4) Chargepoint – post or wall mounted.

5) Groundworks for bollards / bays / signs.

6) Project management.

Installed chargepoints cost between £5-£10,000 each, depending on both the location and the existing electricity supply at the chargepoint site. Costs of connecting a new electricity supply to a chargepoint vary from £3K to £5K. The SOSCI project assumes a cost of £10,000 per chargepoint. 100 charge points means the total capital cost of £1 million. Of this, £335,000 is to be met by Charge My Street, with other costs covered by other partners in the SOSCI project who will receive grants directly for the work they will be carrying out (more details in Appendix 8). The chargepoint infrastructure will be owned by Charge My Street. CmS will receive all revenues from each CP and will hold long-term lease agreements with the site owners.

7.3. Sources of Capital

The Charge My Street element of the capital costs for the chargepoints to be installed in the SOSCI project will be met by grant funding of £335,000 from Innovate UK to Charge My Street. This grant will be paid quarterly in arrears. Funds raised from a share offer are needed to pay for the capital costs of charge points before the grant money is received. Once all the SOSCI project grants have been received, funds from the share offer will be used by Charge My Street to install further charge points. The aim will be to work with local authorities, with Charge My Street using funds raised from the share offer to match grants available to local authorities, such as OLEV On Street Charging (https://www.gov.uk/government/publications/grants-for-local-authorities-to-provide-residential-on-street-chargepoints).

One of the aims of the SOSCI project is to assess the appetite for community investment in installing chargepoints. Can community investment make up 1%, 10%, 50% or 100% of the costs of installing chargepoints? The results will inform Charge My Street's and Government plans for financing public charging for people without their own off-street parking.

7.4. Share offer

The target for the share offer is £130,000. This would bring the total share capital raised by Charge My Street to just under the £150,000 limit for the Seed Enterprise Investment Scheme (SEIS), which gives tax-paying investors tax relief of up to 50%. The shares issued following Charge My Street's first share offer in 2018 were eligible for SEIS.

The £130,000 to be raised in the share offer will provide cashflow support for the 100% grant for the installation of 100 chargepoints in the SOSCI project. At the end of the SOSCI project, the £130K will be split between working capital of £30K, to support the running costs of the new chargepoints, and part funding the installation of new chargepoints. It is hoped that Charge My Street can work with Local Authority partners to obtain OLEV funds and install 40 chargepoints as part of the On-Street Charging programme. £100K would support 40 chargepoints at £10K / chargepoint with Charge My Street contributing 25% funding. This is not without risks – Local Authorities will procure on the open market or through closed frameworks which means that bids may go to other chargepoint providers. If Local Authority support cannot be obtained, the £100,000 of capital from the share offer will be invested in ten to 11 more chargepoints, or more if match grant funding can be obtained from Innovate UK or OLEV.

If the share offer is not fully subscribed, the Directors would seek out loans to cover the cashflow on the SOSCI project from social finance organisations and existing investors. However, this will likely curtail the future expansion of Charge My Street.

The share offer will open on 24th February 2020 and close on 31st August 2020.

If this share offer is fully subscribed, Charge My Street will launch another offer in Autumn 2020 which will be EIS compliant. The scale of that share offer will be informed by the success of this current offer but it is hoped that it would raise £100K. This target is informed by our experience of identifying, securing and installing chargepoints at sites and the costs.

7.5. Income

Projected income is based on the assumptions which have been taken from existing Charge My Street usage data and can be found in section 7.8.

The assumed projections can be viewed in an Excel spreadsheet in the "projections" tab and income in the "revenue" tab, downloadable from https://www.dropbox.com/s/b6rjmqf7gmc7m7a/Chargemystreet%20web%20finances%20share%20offer%202020.xlsx?dl=0

We forecast that charge points would generate revenues of approximately £12K in 2020, rising to £105K in 2021, £123K in 2022 and £135K in year 2023. Associated electricity and management costs will be approximately £9K in 2020, £139K in year 2021, £116K in 2022 and 2023. See appendix 3 for more details.

7.6. Operating Costs

Operating 110 chargepoints, the revenues for the organisation are £123K with fixed costs approximately £116K per year by 2022. Overheads include insurance, staff, accounting and maintenance contracts. Cost of sales consist mainly of the cost of electricity. This assumes that the work of managing the society is carried out by staff and contractors with the existing team (see section 5.3).

Should the revenues allow and the workload increase in the future, then the society would pay more staff to manage the organisation and operation of more chargepoints. Conversely, if revenues are lower, the staffing would be reduced to cover core activities.

The other operating costs are fixed per chargepoint – electricity standing charges £112 / year, maintenance £100 / year and monthly data connection fees £38 / year. Insurance, website and marketing costs are also taken into account. The assumptions of fixed costs and per site charges can be viewed in an Excel spreadsheet in the "costs" tab downloadable fromhttps://www.dropbox.com/s/b6rjmqf7gmc7m7a/Chargemystreet%20web%20finances%20share%20offer%202020.xlsx?dl=0. Assumptions around costs can be found in section 7.9.

7.7. Comparison with other Operators

Following discussions with Tesla about experience of similar schemes in the Netherlands, the average prices are a 45p connection fee and 27 p/kWh for electricity.

- Charge My Street sells power at 35 p/kWh to visitors and subscriptions at £20 per month (up to 86kWh then 23p/kWh) or £30 per month (up to 136kWh then 22p/kWh).
- Charges for similar services are:

- char.gy[6] (£38.99 per month and 19.5 p/kWh)
- Ubitricity (£399 for a cable then £7.99 per month and 16.2 p/kWh with a 29p plug in fee) https://www.ubitricity.co.uk/product/smartcable/
- Vattenfall InCharge 30 p/kWh,

7.8. Community Benefit

Charge My Street measures the following indicators:

- Number of EVs purchased due to our chargepoints becoming available in a community.
- Number of premises 5 minutes' walk from a chargepoint.

We are working with Energy Lancaster at Lancaster University and Durham University to develop methodologies to quantify other benefits. A Community Benefit section appears in the annual report.

EV Adoption

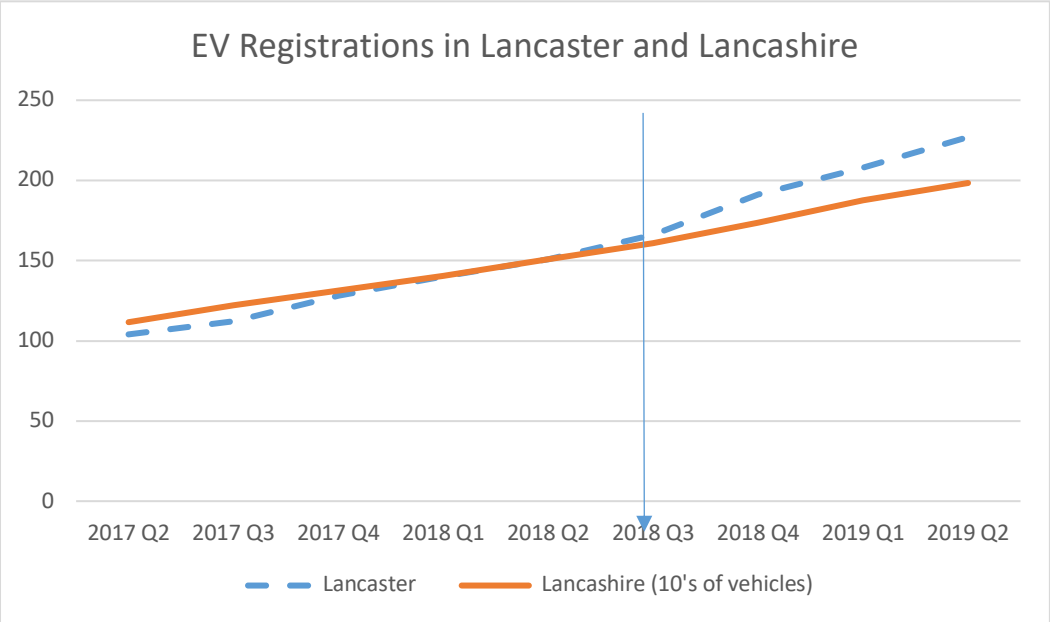


Figure 5 - Comparison of Registrations of EVs in Lancaster and Lancashire before and after Charge My Street established

There was an increase in the rate of EV registrations in Lancaster City Council area after the installation of the first Charge My Street charger. This increase has been faster than Lancashire County as a whole, possibly because of the engagement work carried out by Charge My Street.

[6] https://char.gy/drivers

Premises within 5 minutes' walk of a chargepoint

When Charge My Street was established, there were some chargepoints at Lancaster University and a handful around Lancaster District.

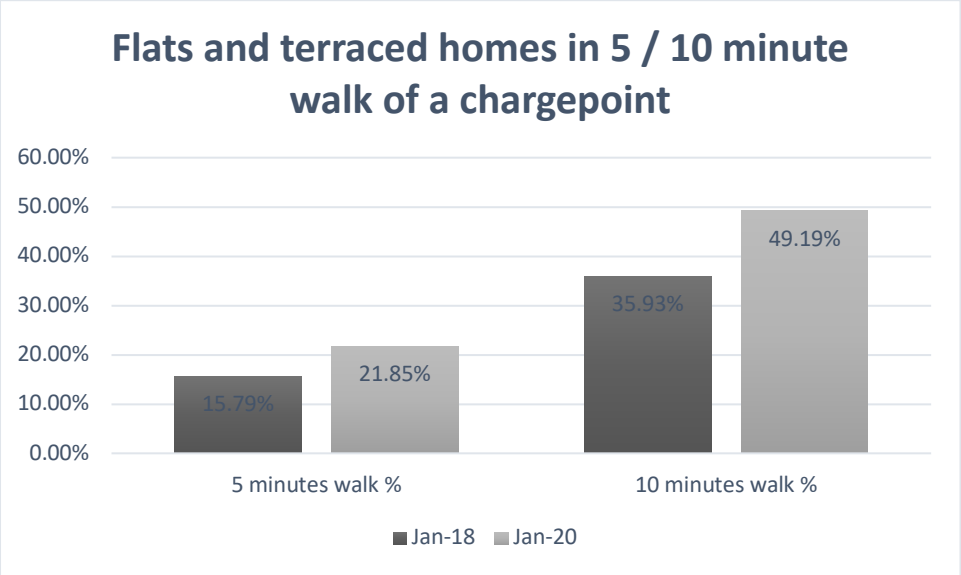


Figure 6- Flats and terraced homes in 5 / 10 minute walk of a chargepoint before and after Charge my Street's launch

Charge My Street has supported the Lancaster City Council OLEV bid which has resulted in several more chargepoints so that 21.9% of homes without off street parking are now within 5 minutes' walk of a chargepoint, up from 15.8% in 2018.

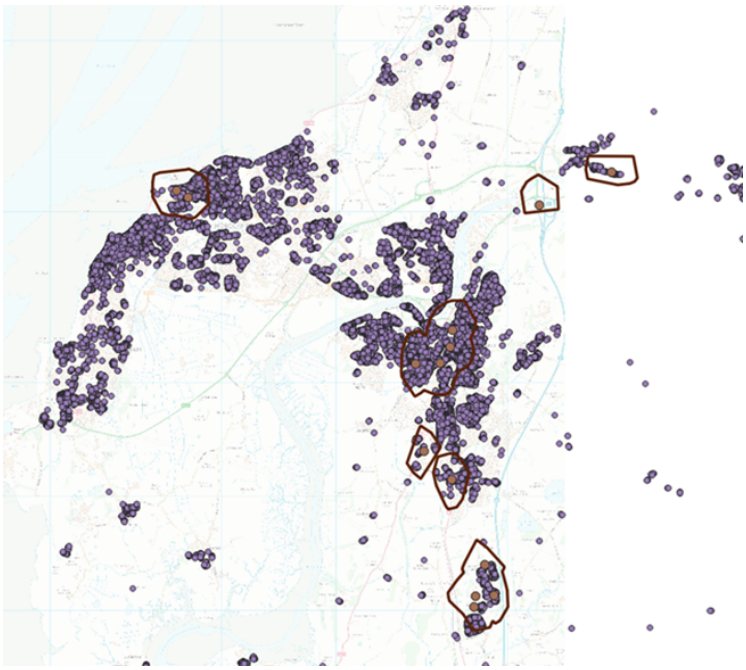


Figure 7 Homes without off street parking in Galgate, Lancaster, Morecambe, Heysham and Hest Bank. Black lines denote areas that are within 5 minutes' walk of a chargepoint.

7.9. Financial Projections

The financial and usage projections in Appendix 3 are based on the following assumptions:

7.9.1 Installations

- 20 chargepoints installed per quarter from Q1 2020 to Q1 2021.

7.9.2 Income

- Use of chargepoints is based on the current usage in the past 12 months of the Charge my Street chargepoints in Lancaster and Cumbria. The revenues are based on actual subscriber numbers and visitor usage. For urban chargepoints this is three subscribers on the light user package and two on the medium user package. For rural, this is one on light and one on medium. Both have a guest charging value of ~£5 per month, calculated from the previous guest usage. It is anticipated that 50% of chargepoints will be in urban areas and 50% in rural areas.
- Grants are shown in the sales line of the profit and loss forecast (as advised by our auditor).
- Projected increase in usage in 2021 and 2022 is 20% year on year. This is lower than Society of Motor Manufacturers' (SMMT) increase in Battery EVs & Plug in Hybrid EVs:[7] After 2022 we have projected a 10% increase in revenue year on year.

Vehicle Type	2020	2021
Battery EV Registrations	Rise 74.7%, to 66,000 units and pushing market share up to 2.9%	Rise 44.8% to 96,000 units, increasing market share to 4.2%.
Plug in Hybrid EV Registrations	Rise 45.3%, to 50,000 units and pushing market share up to 2.2%.	Rise 67.0% to 84,000 units, pushing market share up to 3.7%.

7.9.3 Costs

- It is forecast that 5% of share capital will be withdrawn each year after the EIS 3 year period ends.
- Chargepoints are depreciated by:
    - 15 years for infrastructure elements – poles, cabinets, cabling.
    - 10 years for the chargepoint heads and
    - 5 years for the chargepoint hub.
- Chargepoints are valued according to the cost of their installation e.g. 100 chargepoints in SOSCI will cost £336K (Innovate UK grant).
- Overheads & fixed site costs increase 2% each year. Half of the sites will be able to use the site's internet connection and half will use a separate connection. Half will use the power at the site and half will need a new power connection. 1 support visit per year per chargepoint is envisaged.

[7] *https://www.smmt.co.uk/2020/01/uk-new-car-and-van-forecast-december-2019/*

7.9.4 Profit and Loss Forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027
SALES	10,160	12,056	105,481	123,198	135,518	149,069	163,976	180,374	198,411
LESS COST OF SALES	1,499	9,338	72,605	79,667	78,427	86,890	97,317	108,995	122,074
GROSS PROFIT	**8,661**	**2,718**	**32,876**	**43,531**	**57,091**	**62,179**	**66,659**	**71,379**	**76,337**
TOTAL OVERHEADS	**19,330**	**6,650**	**67,019**	**36,690**	**37,424**	**38,173**	**38,936**	**39,715**	**40,509**
OPERATING PROFIT	**(10,669)**	**(3,932)**	**(34,143)**	**6,841**	**19,667**	**24,007**	**27,723**	**31,664**	**35,828**
OTHER INCOME (GRANTS)	22,597	175,000	160,569						
INTEREST RECEIVED	17								
LESS INTEREST ON SHARES	-	-	380	380	2,976	3,017	7,320	7,313	6,934
LESS DEPRECIATION	4,015	17,102	37,989	37,989	37,989	33,974	32,297	29,619	29,619
PROFIT BEFORE TAX	7,930	153,966	88,056	(31,529)	(21,299)	(12,985)	(11,894)	(5,267)	(725)
LESS CORP TAX @ 19%	0	0	0	0	0	0	3,412	4,627	5,490
PROFIT TRANSFERRED TO RESERVES	7,930	153,966	88,056	(31,529)	(21,299)	(12,985)	(15,306)	(9,894)	(6,215)

7.9.5 Balance Sheet Forecast

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Fixed Assets									
	16,060	166,742	296,537	358,548	320,559	286,584	254,288	224,669	195,050
Current Assets									
	10,873	144,156	102,797	8,688	27,405	43,961	60,803	72,959	88,213
Net Current Assets	10,873	144,156	102,797	8,688	27,405	43,961	60,803	72,959	88,213
Net Worth	**26,933**	**310,899**	**399,335**	**367,236**	**347,963**	**330,545**	**315,091**	**297,628**	**283,264**
Made up of									
Profit and Loss Account	7,930	161,896	249,952	218,423	197,124	184,140	168,834	158,940	152,725
Community shares	19,003	149,003	149,383	148,813	150,839	146,406	146,257	138,688	130,539

7.9.6 Cash Flow Forecast

		2019	2020	2021	2022	2023	2024
Operating cash flow							
	Operating Profit	(10,669)	(3,932)	(34,143)	6,841	19,667	24,007
	Less CT owed	0	0	0	0	0	0
Total Operating Cash flow		(10,669)	(3,932)	(34,143)	6,841	19,667	24,007
Investment cash flow							
	Purchases	-20,075	-167,785	-167,785	-100,000	0	0
	Disposals						
Total investment cash flow		-20,075	-167,785	-167,785	-100,000	0	0
Finance Cash flow							
	Capital Grant Received	22,597	175,000	160,569	0	0	0
	Interest Received	17					
	share interest paid		0	380	380	2,976	3,017
	Shares invested	19,003	130,000	0	0	0	0
	Shares withdrawn	0	0	0	-950	-950	-7,450
Total Finance cash flow		41,617	305,000	160,949	-570	2,026	-4,433
Total Cash Flow		10,873	133,283	(40,979)	(93,729)	21,693	19,573
Opening cash balance		0	10,873	144,156	103,178	9,448	31,141
Closing cash balance		10,873	144,156	103,178	9,448	31,141	50,714

7.10. Tax reliefs

Charge My Street has received advanced assurance that investment in our shares will qualify for Seed Enterprise Investment Scheme relief. Investors will be able to obtain 50% tax relief on their investment, provided they qualify. The shares on which tax relief has been obtained cannot be withdrawn for 3 years. The Advanced Assurance letter from HMRC can be downloaded from the share offer section of the CMS website.

7.11. Legal and Planning Constraints

Planning guidance recommends one chargepoint for every 10 new homes, so based on a home charging model, the UK would need approximately 800,000 chargepoints.

The only parts of the General Permitted Development Order that relate to electrical charging points are

at Part 2, Class D[8] and Part 2, Class E[9]. Class D relates to wall-mounted chargepoints. Class E relates to electrical upstands. Within areas "lawfully used for off-street parking" installation of chargepoints is generally permitted (so does not require an application for planning permission) unless one of the conditions listed in D.1 (see below) applies. There are similar conditions for electrical upstands.

Class D – electrical outlet for recharging vehicles

Permitted development

D. ***The installation, alteration or replacement, within an area lawfully used for off-street parking, of an electrical outlet mounted on a wall for recharging electric vehicles.***

Development not permitted

D.1 Development is not permitted by Class D if the outlet and its casing would—

(a) exceed 0.2 cubic metres;

(b) face onto and be within 2 metres of a highway;

(c) be within a site designated as a scheduled monument; or

(d) be within the curtilage of a listed building.

Conditions

D.2 Development is permitted by Class D subject to the conditions that when no longer needed as a charging point for electric vehicles—

(a) the development is removed as soon as reasonably practicable; and

(b) the wall on which the development was mounted or into which the development was set is, as soon as reasonably practicable, and so far as reasonably practicable, reinstated to its condition before that development was carried out.

7.12. Risks and Mitigation

A full risk assessment has been carried out looking at the commercial, environmental, technical, managerial, health and safety risks. A risk register with mitigations can be found in Appendix 10.

[8] https://www.legislation.gov.uk/uksi/2015/596/schedule/2/part/2/crossheading/class-d-electrical-outlet-for-recharging-vehicles/made

[9] https://www.legislation.gov.uk/uksi/2015/596/schedule/2/part/2/crossheading/class-e-electrical-upstand-for-recharging-vehicles/made

APPENDIX 1 – Director Biographies

The Board of Directors contains individuals with a rich mix of skills and experience.

Paul Fisher has over 20 years of experience in Senior Project Management and Controls roles in the Defence industry in the North West of England. Paul is also a board member and presenter on community radio station, Beyond Radio in Lancaster and Morecambe. He has always been interested in green technology and particularly electric cars but living in a terraced house with no off street parking in the centre of Lancaster originally limited his aspiration. Since the original share offer, Paul has now purchased a hybrid plug in electric vehicle (Hyundai Ioniq) and is a regular user of the Charge my Street facility at the Lancaster Boys and Girls Club on Dallas Road. Paul's ambition is to own a fully electric vehicle in the next couple of years given the increasing range available in the market place.	
Alex Hulley (Secretary) is a committed EV enthusiast with an encyclopaedic knowledge of the Nissan Leaf! He is interested in the development of the EV sector and formerly worked as a project manager for EDF. He is based in Morecambe and now works for an energy consultancy at Lancaster University.	
Nicola Mortimer is a consultant who has worked extensively across the renewable energy sector. Her experience covers wind energy, particularly around mapping and identifying sites then supporting the design of technical solutions. In her other role as part of Milliamp at White Cross, she has managed Innovate UK projects which have successfully looked at battery storage and EV chargepoints.	
Peter Mather (H&S Lead) has a passion for VWs and EVs so it was no surprise he was an early adopter of the Electric Golf. Pete lives in Dolphinholme and is a project manager with a multinational engineering company.	

Will Maden (Chief Technology Officer) has over 15 years' experience operating as a consultant specialising in logistics & transport. He is currently Director of Analytics for Miralis Data, a specialist algorithm and machine learning data agency. Will developed the first commercial algorithms in the UK to schedule and route electric commercial vehicles. More recently, he has been working with a multinational company developing a "smart charge" algorithm which allows electric vehicles to schedule more efficiently and to have the least impact on the national grid. His professional interest in electric vehicles has carried over to his personal life where and he now drives an electric car.	
Daniel Heery (Company Secretary) has 20 years' experience of funding and delivering projects focused on communities. He set up the award winning Cybermoor social enterprise in Cumbria and has worked on community owned infrastructure projects, focused on broadband. His experience of trying to get a charging point installed on his street in Lancaster gave him the idea to use community shares to bring local people together for a co-operative solution. He is passionate about using community assets to find solutions to environmental problems.	

APPENDIX 3 – Chargepoint Usage

All costs / prices EX VAT	charge out	cost						
kWh charge	£0.28	£0.15						
Charge Point Usage								
Urban	Members	Individual Revenue	Total Revenue	Costs	Commission	Rev less costs	Annual Revenues	Cost of sales
Light	3	16	48	£ 18.10	0.90	29.00		
Medium	2	24	48	£ 28.69	0.60	18.71		
Heavy	0	32	0		0.00	0		
Guests	1	4.57	4.57	1.96	0.91	1.70		
Total Monthly		**77**	**101**	**49**	**2.41**	**49.41**		
Total Annual	**6**	**919**	**1,207**	**585**	**28.96**	**592.98**	**1,207**	**614**
Rural								
Light	1	16	16	£ 6.03	0.32	9.65		
Medium	1	24	24	£ 14.34	0.48	9.18		
Heavy		32	0	0	0.00	0.00		
Guests	1.5	3.71	£ 5.57	2.39	1.11	2.07		
Total Monthly		**72**	**45.57**	**22.76**	**1.91**	**20.89**		
Total Annual	**3.5**	**864**	**546.82**	**273.14**	**22.96**	**250.72**	**546.82**	**296**

APPENDIX 4 – Contractual agreements

Key contractual agreements are set out below.

Electrical connection provider

Electricity North West, the District Network Operator for North West England, will supply new connections to sites where there is no existing supply. We will seek the best deal from an electricity supplier that sells renewable energy (*e.g.* Good Energy). At sites where we are using the host's supply, we are not able to guarantee that this will be 100% renewable.

Chargepoint Supplier

EO Charging https://www.eocharging.com/ will provide web based systems for Charge My Street to monitor usage of the system and manage access to chargepoints. They will provide the billing systems and collect payments from members on behalf of Charge My Street.

Chargepoint Installer

They will carry out installation of the charging points and subsequent support.

Bay Camera & Communications are installing the EO chargepoints– they are registered with OLEV as certified installers and have the requisite expertise to carry out the installs. They are based in Lancaster and work closely with EO. They will carry out electrical surveys, detailed cost estimates and options at each site, agree the best option with local host, advise on chargepoint and carry out the installation and commissioning of the chargepoint. They are experienced in delivering these chargepoints for Lancaster University, hotels and other visitor destinations in the area. EO Charging are providing the chargepoints (https://www.eocharging.com).

Local Authority partners

South Lakeland District Council and Durham County Council are providing sites and sundries associated with installation – cabinets, power supplies and cabling.

A full list of partners involved in the SOSCI project is in Appendix 8.

APPENDIX 5 – Marketing Plan

A large part of the marketing strategy will focus on raising awareness of EVs and be delivered by Cumbria Action for Sustainability. They have a part time marketing officer in post until the end of Q1 2021 to work with the local media to promote events.

We will also use the Charge My Street website, social media and mailing lists to promote the chargepoints. In the past, members of the team have successfully promoted co-ops via BBC Radio Cumbria. Using social media, we can highlight the benefits of EVs and Charge My Street's approach.

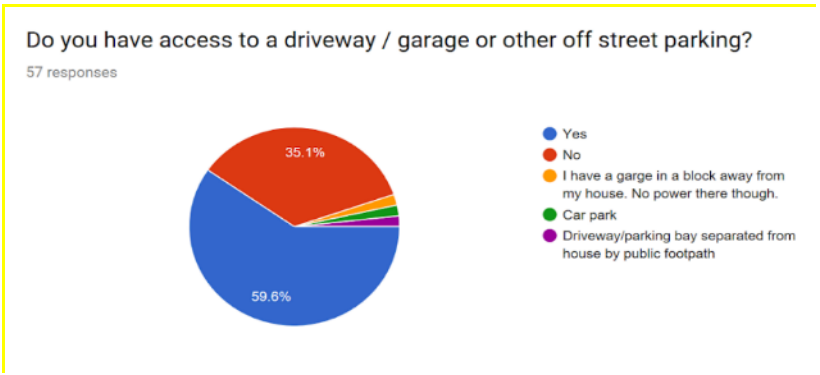
Figure 8 - BBC Radio Lancashire's John Barnes interviews Tim Hamilton-Cox, Trustee of Lancaster Boys and Girls Club about hosting a chargepoint.

We would promote the charging service through:

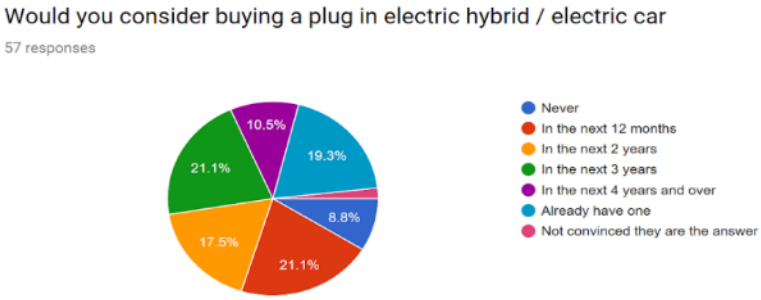
- The website.
- Leaflets & posters at local venues (see below for examples in Lancaster).
- Via social media (Facebook, Twitter).
- Press coverage in local newspapers.
- Events with local and regional EV dealers.
- Media coverage on BBC Radio Cumbria & Lancashire, Heart, CFM, Beyond Radio.
- Regional and national social enterprise networks e.g. Co-ops UK.
- Public sector organisations e.g. public health teams, National Park.
- Social enterprises which share the same environmental and social objectives e.g. CAfS in Cumbria.

APPENDIX 6 - Resident Survey

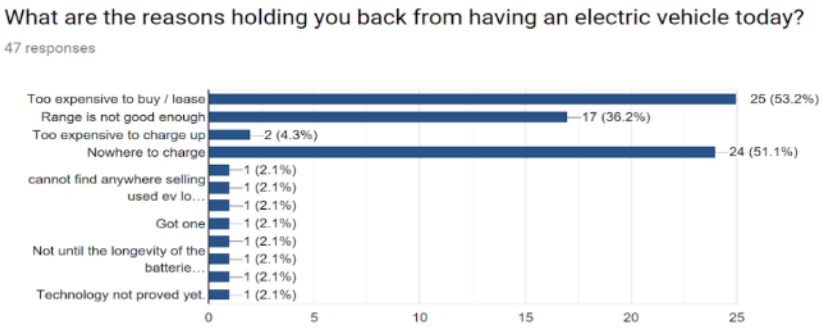
Surveys were carried out in Cumbria, Lancashire, County Durham and Liverpool in Spring 2019 by University of Cumbria and Charge my Street. The survey in Cumbria received 57 responses (detailed below) and was promoted via Facebook, other social networks and local press coverage. As the group is largely self-selecting, it is not representative of the whole population of Cumbria.



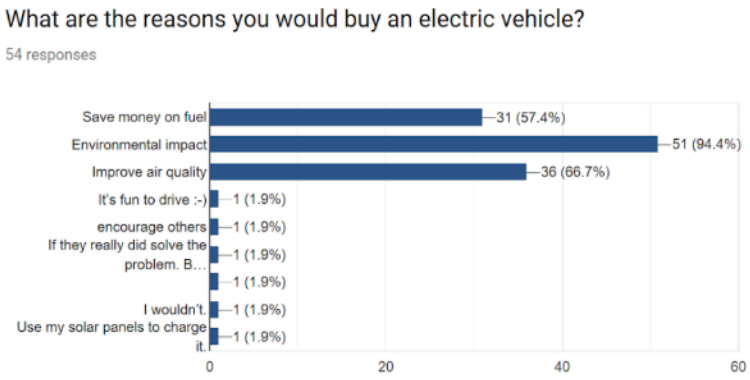
Over one third of respondents do not have access to a driveway.



Almost 60% of respondents would consider buying an electric hybrid/car in the next 3 years

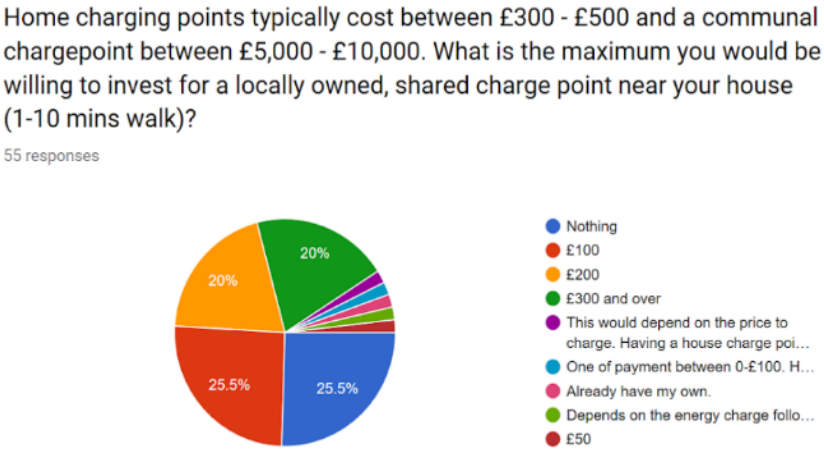


Over half of respondents see the lack of charge points as a reason for them not having an electric vehicle today.



Environmental issues are the most important motivators – so using renewable energy is probably a requisite for the charge points.

75% of respondents will walk 5 minutes or more to a charge point from their home.



Almost two thirds of respondents would put in at least £100 to a communal charge point. In some cases, home charge points can cost £600 if the power needs to be re-routed.

APPENDIX 7 – Stakeholder Engagement

Extensive work has already been carried out to meet with stakeholders across the public, private and community sectors.

Segment of community	Form(s) of communication
Electricity North West Ltd and Northern Powergrid	Meetings
South Lakeland District Council	Meetings
Carlisle City Council	Meetings
Durham County Council	Meetings
South Ribble Borough Council	Meetings
Eden District Council	Meetings
Lancaster University and University of Cumbria	Meetings
Host sites	Via volunteers / partners
EV owners	Flyers on windscreen / general media
Potential EV owners	General media / social media
EV dealers	Meetings
EV Installers	Meetings
Renewable energy providers	Meetings
Other chargepoint networks	Meetings

APPENDIX 8 – SOSCI Project Overview

Introduction

The Scaling on Street Charging Infrastructure (SOSCI) project will examine the feasibility of meeting our vision for 8 million homes without off street parking to be within 5 minutes walk of an Electric Vehicle (EV) Chargepoint. This will deliver:

- increased take up of electric vehicles, allowing people to save money on fuel costs;
- reduced air pollution and CO2 emissions.

Charge My Street has already demonstrated that community investment can provide chargepoints and stimulate demand for EVs in areas without off street parking. The challenge is to scale this up to other Local Authority (LA) areas by working within a bigger consortium.

Objectives & Features

The project builds on feasibility work to include the following elements:

a) planning community owned charging infrastructure. This is based on local demand, mapping data and engagement with local stakeholders;
b) incorporating a variety of additional uses into chargepoint infrastructure - including renewables integration and battery storage. The project will assess the social and financial value for stakeholders as well as technical / commercial implications of each of these technical scenarios;
c) consulting with local stakeholders from private, public and 3rd sectors in each of the target areas on sites for chargepoints and demand for EVs;
d) developing financial plans to scale up investment in the plans across the target areas;
e) building a coherent exploitation plan and business plan to scale up delivery across the target areas.

Details of Innovation

The innovation lies in the business model - giving local people the tools to identify and finance their own chargepoint with little reliance on LAs. It builds on earlier projects by assessing commercial impacts of integrating other technologies like solar panels on community centres to generate additional value. A demand-led approach - encouraging local people to invest - reduces the risk on public and private investors as they can target funding where chargepoints are most likely to be used. The project offers a new way for hard pressed LAs to stimulate chargepoints in their area and make the most of their limited resources.

The project explores the tensions between "top down roll out" programmes lead by multinationals and Local Authorities and the community initiatives led by people in their neighbourhoods. SOSCI develops a methodology that enables stakeholders to reach a consensus on where chargepoints should be located - balancing commercial, environmental and management factors.

Project Partners

Charge My Street (CMS) is a new social enterprise focused on the financing, installing and operating chargepoints in neighbourhoods where there is a lack of off street parking.

Cybermoor (CYB) have developed community broadband solutions and worked with community finance of infrastructure. They bring 15 years of experience in locating, co-designing and installing infrastructure solutions with communities.

Miralis Data (MIR) specialise in the mathematical modelling of complex situations and the designing and writing of algorithms to support business change. They will develop charging apps and a website to support management of the chargepoints.

EO Charging (EO) supply chargepoint equipment and software and have been involved in previous trials with Charge My Street.

Bay Camera & Communications (BAY) have worked with Charge My Street on Phase 1 to carry out survey work and installations of their initial chargepoints. They are based in Lancashire and carry out work on smarthomes installing monitoring devices and online management systems for people with complex care needs. They are interested in expanding their chargepoint installation business as there is a good strategic fit with their smarthome business. They will carry out installations of the chargepoints in Cumbria, Lancashire and other renewable energy clusters.

Blackhall Mill Community Association (BMCA) have an EV car club which was established in 2012. It was established to provide a rural service, given rural transport provision and a desire to demonstrate a model for rural EV car clubs. The community centre where it is based has 40 solar? panels to offset usage, they also have a ground source heat pump for heating. Their experience and knowledge of the SOSCI model could be furthered by creating community charging hubs allied to Car Clubs in Derwent Valley. They will engage other sites for car clubs using EVs.

Cumbria Action for Sustainability (CAFS) is the leading organisation in Cumbria dedicated to transitioning the County to 'Zero Carbon.' With over 20 years of programme delivery, they have been at the forefront of identifying, sharing and showcasing pioneering low carbon technologies and systems to tens of thousands of members of the public, to public authorities and to businesses. This has been achieved through a series of engagement programmes (such as an annual 'Green Build Festival'), through training programmes (such as Level 4 Retrofit) and through their widely respected communication team's monthly newsletters and events. They have recently led an 'Eco-Innovation' dissemination programme on electric vehicles, as well as designing and managing events on battery storage and community energy generation. They have also recently been responsible for raising nearly £1million of community shares.

Cumbrian Local Authorities - Carlisle City Council (CCC) and South Lakeland District Council (SLDC). SLDC and CCC have urban centres surrounded by large rural hinterlands. CCC stretches across the sparsely populated Borderlands as well as having densely populated areas of terraced housing in the centre of Carlisle. In Kendal, SLDC has the most polluted road in Cumbria, as well as scattered villages and high tourism numbers. Part of its area is within the Lake District National Park, a World Heritage Site.

Durham County Council (DCC) is the local authority of the non-metropolitan County Durham. Since 2009 it has been a unitary authority, having the powers of a non-metropolitan county and district council combined. At the time of the 2011 census it served a population of 513,200, which makes it one of the most-populous local authorities in England. The County has established 14 area action partnerships (AAPs) to provide an interface with county community groups. Phase 1 liaised with a small number of these. Phase 2 will work with all of them to deliver 100 chargepoints across the County.

Vattenfall (VAT) is a Swedish state-owned utility and leading supplier of wind-generated electricity to the UK. Vattenfall operate throughout Northern Europe and employ more than 20,000 people. Across Europe, Vattenfall provide heat, energy, network, and transport solutions that support a climate-smarter way of life. Vattenfall has invested £3.5 billion in the UK, which means 14TWh of renewable electricity and 5 million tonnes of CO_2e avoided. After a decade of investment in the UK, Vattenfall deliver more than 1GW of renewable electricity capacity to power British homes and businesses. Vattenfall's 100% renewable energy UK portfolio fits with the company mission to enable fossil free living within a generation. InCharge is an initiative by Vattenfall to provide vehicle charging that is designed to be completely hassle-free, conveniently located and powered by 100% renewable energy (when the energy is supplied by Vattenfall). InCharge provides market leading charging services and solutions to public and private sectors throughout the UK. Today, Vattenfall operate over 11,000 charging points across Europe and are rapidly growing their UK network. Recent InCharge projects include partnering with a number of Councils and NHS Trusts to install and operate charging stations powered by Vattenfall's UK wind farms.

Project Details

Building on the feasibility study, the Consortium has developed a £4 million trial project funded by OLEV and Innovate UK. This large scale demonstrator will run from late 2019 to March 2021.

Research Questions

A set of research questions have been developed to provide a coherent focus for the project's activities. These correspond to the project workpackages (WPs) – see below.

1. Evaluate the balance of community / private / public investment to deliver charging infrastructure and the effectiveness of different business models.

2. What are the strengths and weaknesses of EV charging infrastructure initiatives lead by public sector / private sector / 3rd sector at scale.

3. How can the top down approach of a unitary authority effectively integrate with the bottom up approach of a community-led solution?

4. Does the development of not-normally-public-parking (n2p2) spaces allow for faster deployment of chargepoints than other approaches?

5. Do the additional use cases (e.g. solar, battery storage, 5G) alter stakeholders' perceived benefits of hosting chargepoints and peoples' appetite to invest

6. What are the social, financial, technical barriers to chargepoint installation in rural and urban areas with different socio-economic profiles? How do these impact on take up of chargepoints?

7. Does chargepoint and domestic energy billing integration reduce complexity for users to improve user take up by 10%?

Target Areas

- Council clusters - County Durham, Cumbria (Carlisle, South Lakeland District Council))
- Community Energy Organisations in North West England and Scotland.

Work Packages

The project activities are split across 6 work packages.

Work Package	Lead
1. Project Management	CYB
2. Stakeholder Engagement, Data Collection & Analysis	CAFS
3. Detailed Technical Specification, Design & Development	EO
4. Installation and Commissioning	VAT
5. Finance	CMS
6. Exploitation, Dissemination Monitoring & Evaluation	CYB

APPENDIX 10 - Risks & Mitigation

The Society maintains a risk register which is updated quarterly.

Risk	Risk H/M/L	Like-lihood	Impact	Mitigation
Commercial				
1. Mainstream charging companies move into this space due to increased government subsidies.	M	L	Reduces attractiveness of Charge My Street model.	Stress the convenience and community ownership of this option as the USP.
2. Low take up of the service.	H	M	Reduced cashflow to pay bills	Work with local EV dealers & communities of interest. Work with local media to provide appropriate advertising. We are not paying interest on shares for the first 3 years.
3. Long period before it becomes cost effective.	H	M	Reduced cashflow to pay bills	Minimise running costs by working with partners.
4. Government withdrawal of subsidies for EV purchasing.	L	L	Fewer people interested in purchasing an EV.	Reduce costs until the market picks up. In view of recent announcement about future of EV – changes to subsidies are unlikely.
5. Lack of demand for a charge point / lack of interest from target groups of investors.	M	M	Unable to deliver a chargepoint in that community.	Identify alternative communities, carry out further community engagement.
6. Not sufficient momentum to continue with the delivery of chargepoints.	M	L	Charge points are left unused	Identify partner to take over the management of the installed charge points.
7. The website for collecting investments does not work well.	M	M	Time and costs exceed budget	This work is based on similar sites so work quantification can be accurately estimated.
8. Unable to persuade site owners to host charging points.	M	M	Lack of charging points in preferred area	Work with several (i.e. alternative location) site owners so that one dropping out will not stop the neighbourhood proceeding. Relocate to back-up location.
Technical				

9. The web platform does not work well during trial phase.	M	M	Causes frustration and lack of interest in end users; false expectations.	Two strategies: a) AGILE methodology helps to divide the releases in very short iterations and in focusing in solving specific problems. Tools that register and manage end users' priorities will be used to improve the usability of the site.
10. Local maintenance - to fix is challenging / costly.	L	L	Frustration with users if there is a fault with the chargepoint.	Local champion who can quickly respond and reset the chargepoint. Work with local installers who have a 4 hour fix time.
Environmental				
11. Access to electricity unavailable at best sites - LV network does not have enough capacity.	L	L	Delays to installation and additional costs	Flexible installation plan to work with other sites. Alternate connection technology. e.g. 7kW chargepoints compatible with existing supply.
12. Weather - Adverse weather delays deployments.	L	L	Delays to installation and additional costs	Flexible installation plan to fit around adverse weather.
Managerial				
13. The use of new technology at community premises can be time consuming to arrange with different stakeholders.	H	M	Slow down deployment	Clear setting out of roles and responsibilities. Support for first organisations with designated contact to sort out issues. Publish plans to make people aware of installation.
14. Parking arrangements at sites is complex for organisations.	H	H	Slow down deployment	Show that system can manage use of the spaces.
15. Contracts - Public land owners and organisations (such as charities) not willing or able to respond accurately or timely.	M	L	Slow down deployment	Develop individual documentation to reflect individual needs. Provide a supportive role to help under-staffed organisations. Documentation is based on well-tried forms used for rural broadband projects.
16. Sub-contractor failure - Non-performance or inability to deliver (to time & cost).	L	L	Delay to project delivery	Select qualified installers registered with OLEV. Continue to monitor and provide support where required. Timely payment of their invoices. Ensure contracts are awarded within the capability of the contractor(s).

17. Spaces blocked by non EVs when member wants to charge.	M	H	Reduce attractiveness of the service	Put notices on the car and explain the problem to the motorist blocking the space. Speak with site owners and agree protocol for dealing with people that block places which is in line with their normal parking controls.
H&S				
18. Safety concerns expressed over 'new technology'	M	M	Delay to project	Use well proven and documented designs and equipment so any concerns can be quickly addressed. Use installers accredited by Office for Low Emission Vehicles.
19. Equipment is damaged and malfunctions.	M	H	Member unable to charge risk of electrocution	Installer will isolate power and repair within 4 hours. Alternative chargepoints available.