



# Business Plan Supporting the Charge my Street Share Offer

Charge My Street Limited

A Community Benefit Society registered with the FCA number 7704

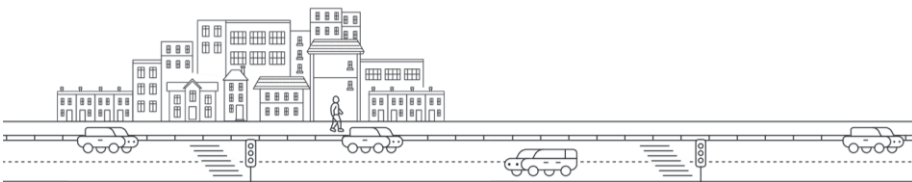
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09/02/2018



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# **1. Executive Summary**

## **1.1. The Business**

Charge my Street is a new 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 will use empty parking spaces to charge electric vehicles. Residents will 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 are 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 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 reduction in greenhouse gasses.
- 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 £27,000 to install 4 chargepoints around Lancaster and Cumbria. Each chargepoint will cost approximately £9K each and some funding has already been secured from Innovate UK.

## **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 co-operative 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 February and June 2018. This is the pilot period for the initial 4 chargepoints.

### **2.2. Charge my Street**

Charge my Street is a new community benefit society that installs electric vehicle charging points for homes without off street parking. Most electric vehicle charging happens overnight so we will use car parking spaces that are empty at that time to charge up electric vehicles.

The Society will:

- a) Install & operate charging points around Lancaster and Cumbria.
- b) Give people the tools to locally finance a community chargepoint.
- c) Encourage the take up of electric vehicles, allowing people to save money on fuel costs;
- d) Reduce air pollution and CO<sub>2</sub> emissions.
- e) Explore storage of renewable energy in EV batteries, reducing the need for fossil fuels.

### **2.3. Vision**

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.

### **2.4. Future Plans of Society**

The Society is testing the approach of community owned chargepoints in Lancaster and Cumbria. The Directors feel that the Charge my Street approach could be attractive to other communities across the UK. This share offer is being designed so we can scale up if it is successful. 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 the 4 which are currently being developed.

## **3.The Project**

### **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 charging points on street due to 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 Motorway services (this can be expensive (£6 / charge) and may require a special journey)

## 3.2. The Need

- 49% of homes in the Lancaster District are in flats and terraces, which do not have a driveway where they can plug in a vehicle. Similarly in Cumbria, many villages have terraced streets with a lack of off-street parking.
- Lack of nearby charging points is slowing takeup 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).
- The nearest chargepoints for people in central Lancaster are currently Lancaster House Hotel, Lancaster University and Forton Services. In Cumbria, chargepoints are located in larger towns.

## 4. Target Community

### 4.1. Community Demographic

This service will target the domestic residential EV charging market particularly those households with no off street parking.

30% of homes in the UK have only on-street parking, so are unable to install a home chargepoint. 49% (30,532) of premises in Lancaster District are flats or terraces 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 income £35K+ and a quarter £60K+. Social Grade – a third are AB and 25% are C1. Motivations of the target segment are - Desire to save money, interest in new technology and pro environmental attitudes. (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. Car dealers on Lancaster’s White Lund expect to sell 250 EVs in 2018, with approximately 125 (50%) lacking domestic off street charging facilities. In line with the London Boroughs and Transport for

London report by WSP and Parsons Brinckerhoff<sup>1</sup>, we forecast that 10% of new EV owners in Lancaster will need our solution (12), increasing year on year as EV demand rises.

There are currently 4250 public charging locations (Zapmap) in the UK. 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 2 Grid (V2G), where stored energy is supplied back into the grid with members receiving a revenue share on profits that are made. This is attractive to people with strong environmental values who see EV batteries as a means to store renewable energy.

## **4.2. Community Engagement Plan**

Since Spring 2017, 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 Lancaster and Cumbria, working with local partners like Transition City Lancaster, Cumbria Action for Sustainability (CAFS), and ACT Cumbria.

## **5.The Business**

### **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 the website.

### **5.2. Governance**

The board comprises of 6 founder 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.

At the first AGM the current board will stand down, but may stand for re-election. Directors will be elected by the members, who will be those who have purchased shares in the initial share offer.

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<sup>1</sup> 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

## 5.3. Sustainability

It is estimated that the 4 chargers will be used lightly in the first 2 years, with demand building in the third year. These chargepoints should be profitable in the first year, but this largely depends on take up of EVs in the area. However, even with relatively light use by 3 EV owners, the society will generate a small surplus on a chargepoint.

Lancashire County Council have engaged Chargemaster PLC to install 2 rapid chargers & 4 fast chargers in Lancaster, 1 rapid charger and 2 fast chargers in Morecambe. These are intended to be on-street and not in central car parks. In addition they are planning to install 1 fast charger for the Park and Ride site at M6, Junction 34. They have not yet confirmed sites, but they may reduce demand for the Charge my Street infrastructure in the short term. More installations of chargepoints contribute to the Society's overall objectives of encouraging the take up of EVs and will allow us to focus our efforts on areas which are not covered by Lancashire County Council's initiative.

Future revenue streams are being investigated around Vehicle to Grid (V2G), where members can sell power from their EV battery at peak times, generating additional revenue. Discussions have taken place with Newcastle University's V2G team and Energy Lancaster based at Lancaster University. This will support the Society's environmental objectives of storing renewable energy for later use and also commercial objectives by generating additional revenue.

## 5.4 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.

# 6.Charging Points

## 6.1. Locations

Locations are shown on the map at [www.Chargemystreet.co.uk](http://www.Chargemystreet.co.uk) The initial locations are:

- Lancaster Boys and Girls Club,
- Bargain Booze on Greaves Drive, Lancaster,
- The Victory Hall - Broughton-in-Furness,
- Another site to be confirmed.

These sites have signed a hosting agreement a sample can be found in Appendix 9). The website indicates which other locations have been considered and the 4 different development stages each location falls into:

- 1) Site has been proposed and under negotiation.
- 2) Site is open for investment.



- 3) Investment total reached and equipment installed / in the process of being installed.
- 4) Site is not feasible.

Charge my Street works with local Chargepoint Champions that want a chargepoint installed on their street. 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.

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 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. Non-members can also use the chargepoint as long as it is available, although they will pay a higher price as this transaction will be managed by Eo.

## **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 Lancaster.
- 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 what is happening.

There will be an initial marketing push to promote the share offer followed by a strategy to drive take up 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. We will aim to find 12 people per chargepoint by 2022 (see Appendix 3 – chargepoint usage scenarios). Targeted ads through social media, leaflet drops on car windscreens and door knocking will be the preferred way of growing the use for 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**

Installed chargepoints cost between £8,000 to £10,000 each, although their exact price depends 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. In this case the cost has been

averaged to £9,000 per chargepoint.

- Total capital required is £38,200.
- That goes towards the cost of 4 chargepoints - £36,000 (average £9,000 per chargepoint) and working capital - £2,200.
- Start-up costs are covered by grant funding from Innovate UK through Cybermoor and CBN. More details of the relationship between the organisations and the Society can be found in Appendix 2.

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) Chargepoint – post or wall mounted.
- 4) Groundworks for bollards / bays / signs.
- 5) Project management.

### **7.3. Sources of Capital**

This share offer will use:

- 1) £27,000 share capital from members.
- 2) £11,200 funding from Innovate UK.

### **7.4. Operating Costs**

Operating 4 chargepoints, the fixed costs for the organisation are approximately £5,000 per year. This covers insurance, accounting and maintenance contracts. This assumes that the work of managing the society is carried out by volunteers.

Should the revenues allow and the workload increases in the future, then the society would pay contractors to manage the organisation and deployment of more chargepoints.

### **7.5. Income**

Projected income is based on the following assumptions:

1. Overnight charge with weekend charging – and could be higher if sites allow daytime charging during the week.
2. Two spaces available for a twin charger

3. Average vehicle battery is based on a Nissan Leaf, other EVs have different requirements
4. Electricity costs 13p / unit – this may vary from site to site.
5. 1 visitor charge per week

Following discussions with Tesla about experience of similar schemes in the Netherlands, the average prices are a 45p connection fee and 27p / kWh charging. Charge my Street will sell power at 38p / kWh.

We forecast that charge points would generate revenues of approximately £6K in year 1, rising to £13K in year 2, £16K in years 3 & 4 and £26K in year 5. Associated electricity and management costs will be approximately £5K in year 1, rising to £10K in year 2, 11K in year 3, £12K in year 4 and £16K in year 5. See appendix 3 for more details.

## 7.6. Social Return on Investment (SROI)

The project will measure the following indicators:

- Number of new EVs adopted due to our chargepoints becoming available in a community.
- CO<sub>2</sub> savings generated from these EVs (based on power consumed compared to petrol and diesel).

We will work with Energy Lancaster at Lancaster University to develop a methodology to quantify these benefits. SROI will appear in the annual report.

## 7.7. Financial Projection

### 7.7.1 Balance Sheet Forecast

	2018	2019	2020	2021	2022
Fixed Assets					
	32,400	28,800	25,200	21,600	18,000
Current Assets					
	1,542	4,870	9,929	11,080	18,588
Current Liabilities					
CT owed	0	0	0	0	0
(deferred grant released next year)	1,120	1,120	1,120	1,120	0
Net Current Assets	422	3,750	8,809	9,960	18,588
Long Term Liabilities					
(deferred grant)	8,960	7,840	6,720	5,600	5,600
Net Worth	23,862	24,710	27,289	25,960	30,988
Made up of					
Profit and Loss Account	(3,138)	(2,290)	(251)	570	7,789
Community shares	27,000	27,000	27,540	25,391	23,199

### 7.7.2 Cash Flow Forecast

		2018	2019	2020	2021	2022
Operating cash flow						
	Operating Profit	(658)	3,329	5,059	3,851	10,207
	Less CT owed		0	0	0	0
Total Operating Cash flow		(658)	3,329	5,059	3,851	10,207
Investment cash flow						
	Purchases	-36000				
	Disposals					
Total investment cash flow		-36000	0	0	0	0
Finance Cash flow						
	Capital Grant Received	11200				
	Shares invested	27000				
	Shares withdrawn	0	0	0	-2700	-2700
Total Finance cash flow		38200	0	0	-2700	-2700
Total Cash Flow		1,542	3,329	5,059	1,151	7,507
Opening cash balance			1,542	4,870	9,929	11,080
Closing cash balance		1,542	4,870	9,929	11,080	18,588

### 7.7.3 Profit and Loss Forecast

		2018	2019	2020	2021	2022
Sales		6,638	13,277	16,186	16,186	26,006
Less Cost of Sales		2,557	5,113	6,195	6,505	9,868
<b>Gross Profit</b>		<b>4,082</b>	<b>8,163</b>	<b>9,991</b>	<b>9,681</b>	<b>16,138</b>
Less Overheads						
	Accountancy & Bookkeeping - billing	1,550	1,581	1,613	1,645	1,678
	Insurance	330	337	343	350	357
	Website hosting / domains	500	510	520	531	541
	Website maintenance / updates	500	510	520	531	541
	ICO / Co-ops UK Reg	150	153	156	159	162
	Marketing	1,000	1,020	1,040	1,061	1,082
	Electricity Standing charge	360	367	375	382	390
	Maintenance & Support (£800 after year 3)	0	0	0	800	800
	Contingencies	350	357	364	371	379
<b>Total Overheads</b>		<b>4,740</b>	<b>4,835</b>	<b>4,931</b>	<b>5,830</b>	<b>5,931</b>
<b>Operating Profit</b>		<b>(658)</b>	<b>3,329</b>	<b>5,059</b>	<b>3,851</b>	<b>10,207</b>
Less Interest on Shares		-	-	540	551	508
Less Depreciation		3,600	3,600	3,600	3,600	3,600
Plus released capital grant		1,120	1,120	1,120	1,120	1,120
Profit Before Tax		(3,138)	849	2,039	820	7,220
less CT @ 20%		0	0	0	0	0
Profit transferred to reserves		(3,138)	849	2,039	820	7,220

Full details of the assumptions made and the financial model can be viewed in the spreadsheet at <http://ow.ly/L25S30itmMf>

## 7.8. Tax reliefs

Charge my Street has applied for advanced assurance that investment in our shares will qualify for

Seed Enterprise Investment Scheme relief. We think we meet all of the criteria for Seed EIS. If this is approved, investors may 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. Advanced Assurance will be made available when it is received in mid – March, although this is dependent on the HMRC workload.

## **7.9. Community Shares Standard Mark**

The Community Shares Standard Mark is awarded by the Community Shares Unit to offers that meet national standards of good practice. These standards ensure that:

- The offer document and application form are easy to understand
- You are provided with all the facts you need to make an informed decision
- The facts are supported by the annual accounts and/or business plan for the society
- Nothing in the documents is purposefully incorrect, confusing or misleading

Societies are asked to sign a Code of Practice requiring them, among other things, to give the public a right of complaint to the Community Shares Unit.

For more information about community shares, the Community Shares Standard Mark and the Community Shares Unit go to: [www.communityshares.org.uk](http://www.communityshares.org.uk)

## 7.10. Legal and Planning Constraints

Planning guidance recommends 1 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 relates to electrical charging points is at Part 2, Class D and Part 2, Class E. Class D relates to wall-mounted. Class E relates to electrical upstands. The thresholds are included in both Classes below. The phrase, “lawfully used for off-street parking” does not appear to concern itself with who owns the land, so it would appear the thresholds apply to any land that is lawfully used for off-street parking.

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### *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.
-



## APPENDIX 1 – Director Biographies

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

<p><b>Daniel Heery</b> (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.</p>	
<p><b>Paul Fisher</b> 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 a board member and presenter on community radio station Beyond Radio in Lancaster and Morecambe. Paul has always been interested in green technology and particularly electric cars. Living in a terraced house with no off street parking Paul has an ambition to own an electric vehicle within the next two years and is keen as a founding member of Charge My Street to make this happen in Lancaster.</p>	
<p><b>Tony Haslam</b> is currently a Director of a Web Development and Internet Marketing business in Lancaster and prior to that was a Director of an IT Services Company. He has also worked as a volunteer for various projects with Transition City Lancaster, who have been building resiliency and sustainability in the city to transition through the climate change and economic meltdown that is predicted by leading environmental scientists and financial analysts to cause problems globally this century. He is keen to establish the widespread use of electric vehicles in Lancaster and Morecambe to reduce the effects of pollution in our city and make us more resilient in facing an uncertain future.</p>	

<p><b>Will Maden</b> has over 15 years' experience operating as a consultant specialising in logistics &amp; 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 he is currently waiting for delivery of his family's first electric car.</p>	
<p><b>Jim Mann</b> lives near Lancaster Cathedral and has a background in telecoms, networking and programming. He has worked at Lancaster University Network Services (LUNS), on community broadband projects and is currently employed at Vibe tickets in the Storey. Jim is interested in the future of EVs and living on a terraced street is keen to see how electric vehicle infrastructure can create a cleaner, greener Lancaster.</p>	
<p><b>Steve Jenkins</b> is a Lancaster resident who is involved in several community projects such as Claver Hill Farm on the Ridge Estate. He is passionate about environmental issues and has spent 10 years on Transition City Lancaster and was a Director of LESS. He is looking forward to the positive impact that Charge my Street can make. He previously worked for 20 years in ICT at Lancaster University.</p>	

## **APPENDIX 2 - Key Personnel & Project Management**

### **Background**

In Spring 2017 Daniel Heery applied for funding from Innovate UK's Infrastructure Fund Round 2. As Charge my Street was an un-constituted group without a bank account or any track record, Daniel used Cybermoor and CBN to apply for the funds, as both are established social enterprises which have been trading for over a decade. Both organisations have their roots in community engagement in innovative technology projects. Daniel Heery is a Director of both social enterprises, and he persuaded the other Directors to back the Charge my Street idea. Another CBN Director, Shaun Fensom is developing the Charge my Street website as part of the Innovate UK project, based on his experience of developing a similar site for the "Save our Bank" campaign. <https://saveourbank.coop/>

### **Team**

The team developing Charge my Street is made up of volunteers and people from our partner organisations.

Daniel Heery is managing the development of Charge my Street (see Appendix 4). finding sites, managing the delivery partners, setting up site owner contracts, liaising with academic partners at Newcastle and Lancaster Universities. Shaun Fensom (CBN) – Developer: developing the website platform to manage the site identification, demand stimulation & aggregation and community shares. Kevin Wood (CYB) – is managing the Innovate UK funding.

Bay EV are the sub contractors installing the Eo chargepoints (<https://www.eocharging.com>) – they are registered with OLEV as certified installers and have the requisite expertise to carry out the installs. They will carry out electrical survey, detailed cost estimates and options at each site, agreeing best option with local host, advising on chargepoint, carrying out installation and commissioning of chargepoint. They are experienced in delivering these chargepoints for Lancaster University, hotels and other visitor destinations in the area.

## APPENDIX 3 – Financial Forecasts

There are 3 examples of charging point users – Light, medium and heavy, based on a 30kWh Nissan Leaf battery.

<b>LEAF</b>		cost
Nissan Leaf battery (kWh)	30	
kWh charge	£ 0.38	£ 0.13
Connection fee	£ 0.45	
<b>Scenario 1 -Light user</b>		
50% charge once per fortnight kWh	15	
Charges per month	2	
<i>Per charge</i>		
kWh revenue	£ 5.70	£ 1.95
Connection fee	£ 0.45	
Total	£ 6.15	
<b>Scenario 2 - Medium user</b>		
75% charge kWh	22.5	
Charges per month	4	
<i>Per charge</i>		
kWh	£ 8.55	£ 2.93
Connection fee	£ 0.45	
Total	£ 9.00	
<b>Scenario 3 - Heavy user</b>		
75% charge kWh	22.5	
Charges per month	16	
<i>Per charge</i>		
kWh	£ 8.55	£ 2.93
Connection fee	£ 0.45	
Total	£ 9.00	

## Charge Point Usage Scenarios

Each scenario sets out the potential usage and an occupancy ratio –the heavy usage scenario shows the bays in use 83% of evenings.'

### Scenarios for LEAF

<b>Minimum</b>	Members	Charges / month
Light	2	4
Medium	2	8
Heavy	1	16
Guests		4
Total Monthly		32
Total Annual	5	384
Occupancy (twin charger)		0.42
<b>Medium</b>		
Light	4	8
Medium	3	12
Heavy	1	16
Guests		4
Total Monthly		36
Total Annual	8	432
Occupancy (twin charger)		0.47
<b>Maximum</b>		
Light	6	12
Medium	4	16
Heavy	2	32
Guests		4
Total Monthly		60
Total Annual	12	720
Occupancy (twin charger)		0.79

## **APPENDIX 4 – Contractual agreements**

Key contractual agreements are set out below.

### **Electricity Providers**

Electricity North West 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. co-op energy or 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**

Bay EV (<http://bayev.co.uk/>) are based in Lancaster and work closely with EO. They will carry out installation of the charging points and subsequent support.

### **Cybermoor Services & Community Broadband Network**

Both Cybermoor and CBN have supported the set up Charge my Street by successfully winning funding from Innovate UK (see section 7.2). The funding is paying for some of the start-up costs and charge point installation. This input builds on the documentation, processes and expertise of developing community broadband networks over the last 15 years. Cybermoor and CBN will discuss their further involvement with the Committee in August 2018 when the success of the share offer has been evaluated by all partners. Daniel Heery is a board member of CBN, CYB and secretary of Charge my Street.

## **APPENDIX 5 – Marketing Plan**

Our marketing strategy will cover the whole of the target area and we will work with 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.

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, The Bay, Beyond FM.
- Regional and national social enterprise networks e.g. Co-ops NW.
- Public sector organisations e.g. public health teams, National Park.
- Social enterprises which share the same environmental and social objectives eg. CAFS in Cumbria.

### Poster sites in Lancaster

Whale tail	Single step
Roots	Nail shop near Single Step
Filberts	Atticus
Ahoy on King Street - Alternative clothes shop	Hoover shop opposite Filberts - in window
Library	Phone Z (Market street) on door facing out
Gregson	Pizza Margherita (they take 2 - back to back on glass wall)
Comic shop opposite Pizza Margherita	Taxi rank (at the bottom of town opposite Go Burrito - can fit <b>2</b> there too)
Go burrito	Beer shop on corner at bottom of Church st - they take 2, one on each side of door
Bus station cafe	Castle Press (opposite Atkinsons)
Esquire Cafe (opposite McDonalds)	New Street - glass fronted notice board on street
Alley by side of Holland and Barrett - glass fronted notice board on street	Lush (small notice board)
Sun cafe	Corner Shop Freehold - (have to pay unless its a fund-raiser or free entry)
Tourist info in the storey	Picture Framing Gallery (Meeting House Lane)
Laundrette (on Carr House Lane, off Aldcliffe rd nr B and Q)	Apothecary - Gillow used to
The hairdressers next to the Gillow	Quaker Meeting House
Tattoo shop on meeting house lane	Williamson Park Cafe
In most newsagents	

### Flyer locations in Lancaster

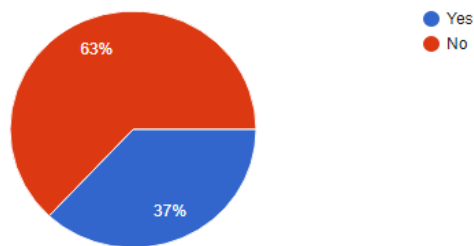
Roots	Music Room	Juice Cafe	Single Step/Whale
1725	Waterstones	Ashton Memorial Cafe	Gregson
Adult College	Esquire Cafe	Go burrito	Quaker Meeting House

## APPENDIX 6 - Resident Survey

The survey received 46 responses and was promoted via Facebook and other social networks along with 10 face to face interviews by Transition Lancaster during summer 2017. As the group is largely self-selecting, the health warning is that it is not representative of the whole population of Lancaster.

Do you have access to a driveway / garage or other off street parking?

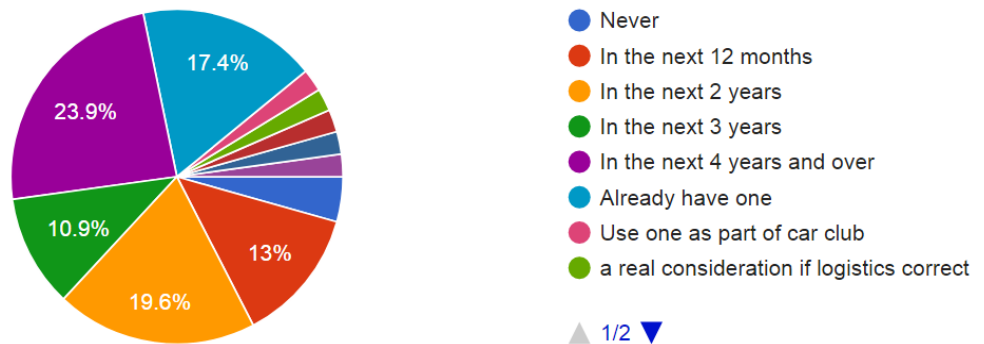
46 responses



Two thirds of respondents are off street so are in the target group – it's anticipated that people with off street parking would probably get their own home charger in due course.

Would you consider buying a plug in hybrid / electric car

46 responses

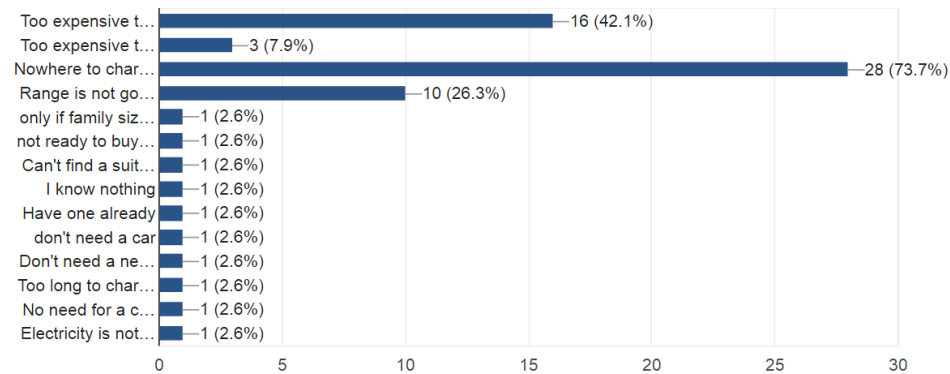


One third of respondents are thinking of getting an EV within the next 2 years.



### What are the reasons holding you back from having an electric vehicle today?

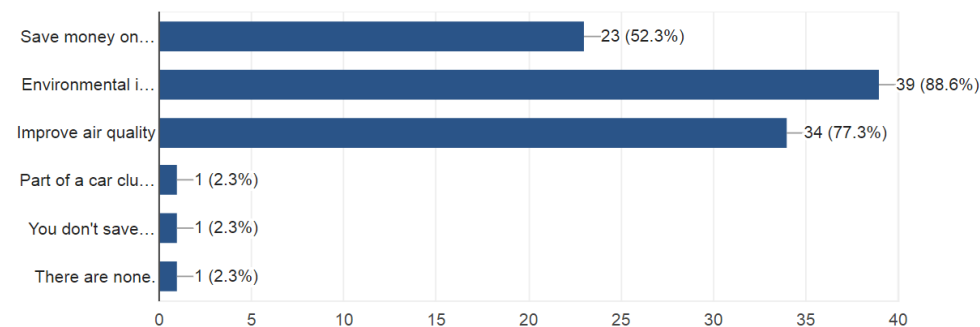
38 responses



73% are being held back by lack of on street charging. An intervention in this area could move more people to get an EV.

### What are the reasons you would buy an electric vehicle?

44 responses

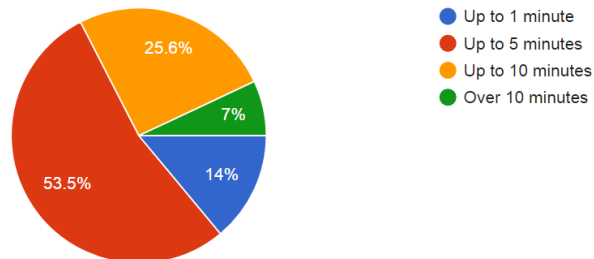


Environmental issues are the most important motivators – so using renewable energy is probably a requisite for the charge points.

## Charging points for your street

How long would you be willing to walk from your home to the nearest vehicle charge point?

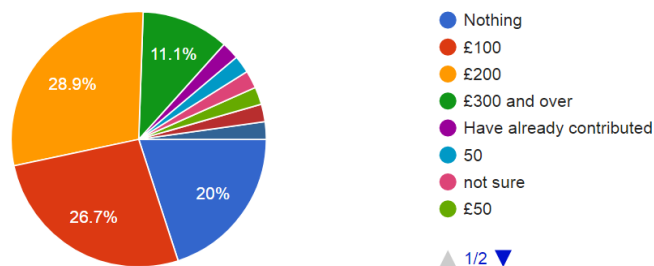
43 responses



Over  $\frac{3}{4}$  of respondents are OK to walk 5 minutes to a charge point.

Home charging points typically cost £200 - £300 and a communal chargepoint between £2,500 - £5,000. What is the maximum you would you be willing to invest for or a locally owned, shared charge point near your house?

45 responses



Almost  $\frac{2}{3}$  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.

<b>Segment of community</b>	<b>Form(s) of communication</b>
Electricity North West Ltd	Meetings
Lancaster City Council	Meetings
Lancaster University	Meetings
Lancashire County Council Highways	e-mail / phone
Green Party	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

# APPENDIX 8 – Example Quote for Installation



Proposal: Lancaster Boys and Girls Club

- New electrical consumer unit
  - New earth rod
  - 2 x EO Genius chargers (1 hour charge time)
  - 1 x EO Hub
  - Installation
  - Signage
  - 3 Years warranty and maintenance
  - 3 Years subscription to cloud billing
- |       |           |
|-------|-----------|
| Total | £4,995.00 |
|-------|-----------|

Electricity NW estimate a connection cost of £3,000.

## APPENDIX 9 – Example Site Agreement

Charge my Street has a tenancy agreement for the site owners to host a charging point. This has a peppercorn rent of £20 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 may vary slightly from site to site depending on the nature of the organisation.

### RENTAL AGREEMENT

#### (For a Tenancy for Charging Point location)

The PROPERTY	X Parking spaces at XXXX
The LANDLORD	xxxxxxxxxxxxxxxxxx
THE EQUIPMENT	Comprising an external Electric Vehicle charging point
The TENANT	Charge My Street Limited (registered with the FCA under the Co-operative and Community Benefit Societies Act 2014 with registration number 4434), whose Registered Office is 5-2-14, White Cross Business Park, Lancaster, Lancashire, LA1 4XQ
The TERM	12 months beginning on XXth XX 201X and thereafter from year to year
The RENT	£20 a year- to be reviewed annually
Payable upon invoice annually.	
DATED	
SIGNED	

\_\_\_\_\_  
(The Landlord)

\_\_\_\_\_  
(The Tenant)

THIS RENTAL AGREEMENT comprises the particulars detailed above and the terms and conditions printed below and overleaf whereby the Property is hereby let by the Landlord and taken by the Tenant for the Term at the Rent.

#### IMPORTANT NOTICE TO LANDLORDS:

(1) The details of The LANDLORD near the top of this Agreement must include an address for the Landlord in England or Wales as well as his/her name.

(2) Written Notice by either party to the other to terminate this agreement must be given four months before the end of the Term otherwise the agreement will be automatically renewed under the same arrangements. In addition either party may give the other three months' written notice to terminate this contract on any date after the first twelve months.

#### Tenancy Terms and Conditions

1 The Tenant will:

- 1.1 Pay the Rent at the times and in the manner aforesaid without any deduction abatement or set-off whatsoever.
- 1.2 Pay all charges in respect of any electricity services used at or supplied to the Property and any value added tax ("VAT") properly chargeable on such charges or any similar tax that might be charged in addition to or replacement of it during the Term and, if the Equipment takes its electricity supply from the Landlord's electricity supply, pay a reasonable and proper charge, including VAT, for the electricity supplied to the Equipment and any maintenance costs to maintain the equipment on the site in sound order.
- 1.3 Pay any costs to maintain the Equipment on the Property in sound order.
- 1.4 Keep the Equipment and the Property in a good, clean and tenantable state and condition and not damage or injure the Property.
- 1.5 Following installation, not make any un-necessary alterations to the Equipment other than repair, replacement or upgrade without the Landlord's prior written consent.
- 1.6 Not do or omit to do anything on or at the Property which may be or become a serious nuisance or annoyance to the Landlord.
- 1.7 Not use or occupy the Property in any way whatsoever, other than for the purpose intended.
- 1.8 Insure the Equipment in respect of any damage caused by it, or by any persons installing, maintaining, or otherwise associated with the Equipment. The Tenant will indemnify the Landlord against any and all liability associated with the Equipment.

2 The Landlord will:

- 2.1 Subject to the Tenant paying the rent and performing its obligations under this Agreement, allow the Tenant peaceably to hold and utilize and have access to the Property and the Equipment at the times set out in the Schedule of availability below during the Term without lawful interruption from the Landlord or any person rightfully claiming under or in trust for the Landlord.
- 2.2 Keep in repair the access to the Property.
- 2.3 Allow the Tenant access to the Property given reasonable notice in order to undertake necessary repair and maintenance, at a time which will be mutually agreed.
- 2.4 The Landlord will not be required to carry out works for which the Tenant is responsible by virtue of its duty to use the Property in a tenant-like manner.
- 2.5 The Landlord will use reasonable endeavours to manage parking at its premises, of which the Property forms part, so that the intended effect of this agreement is not frustrated and, in assessing what are "reasonable endeavours", regard shall be had to whatever parking management arrangements the Landlord had in place immediately before the date of this agreement and has had in place during the course of this agreement.

3 The Landlord notifies the Tenant that any notices (including notices in proceedings) should be served upon the Landlord at the address stated with the name of the Landlord above.

### **Keyholder details (in case of emergency)**

Name:

Tel:

Address:

### **Schedule of Availability**

Access to parking spaces Monday – Sunday, 10pm – 7am

## APPENDIX 10 - Risks & Mitigation

The Society maintains a risk register which is updated quarterly.

Risk	Risk H/M/L	Like- lihood	Impact	Mitigation
<b>Commercial</b>				
1. Unable to obtain EIS approval	L	L	Reduced attractiveness to investors	Work with specialists from community shares unit to make the offer EIS compliant
2. 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.
3. 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.
4. Long period before it becomes cost effective	H	M	Reduced cashflow to pay bills	Minimise running costs by working with partners.
5. 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
6. Lack of demand for a charge point / lack interest from target groups of investors	M	M	Unable to deliver a chargepoint in that community.	Identify alternative communities, carry out further community engagement
7. Not sufficient momentum to continue with the project	M	L	Charge points are left unused	Identify partner to take over the management of the installed charge points
8. Chargepoint Champion decides they will work with an alternative charge point provider after raising finance	L	L	Unable to control the chargepoint in the future.	A higher management fee would be charged for a group which wanted to use an alternative provider and they would be reminded that tax incentives would not apply.

9. 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.
10. 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
<b>Technical</b>				
11. 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.
12. 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.
<b>Environmental</b>				
13. 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.
14. Weather - Adverse weather delays deployments	L	L	Delays to installation and additional costs	Flexible installation plan to fit around adverse weather
<b>Managerial</b>				
15. 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.
16.				
17. Parking arrangements at sites is complex for organisations	H	H	Slow down deployment	Show that system can manage use of the spaces.



18. 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.
19. 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)
20. 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.
<b>H&amp;S</b>				
21. 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.
22. 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.