

September 2021

People Powered Retrofit 5 Years Business Plan

#PeoplePoweredRetrofit

**PEOPLE
POWERED
RETROFIT**

1. OVERVIEW

Tackling climate change is the biggest challenge we face as a society. Until now, there has been a lack of trusted, simple and affordable solutions to making our homes greener and more comfortable places to live. To date, retrofit offers have been seen as poor quality, cheap and have often been delivered by large, faceless and untrusted corporations.

People Powered Retrofit is different. We are a new, not-for-profit social enterprise providing a retrofit 'One Stop Shop', a fee-based retrofit service for householders in Greater Manchester and beyond, offering clear, independent advice and support to help clients plan, procure and deliver their eco-refurbishment project to a high standard.

We are 'people powered' a member-led organisation subscribing to co-operative principles, motivated by the challenge of tackling climate change and contributing to national and international carbon reduction targets. We believe we can tackle climate change through collective action and put our members at the centre of our development, involving them in formulating and testing our services.

We offer a range of services to help clients achieve their retrofit goals including designing their project, helping them procure the best contractors; overseeing quality assurance and offering impartial, expert advice. Helping householders at every step of the way, we can manage the entire process or just help householders with specific phases. Our fees are designed to be with an eye on affordability to open up access to retrofit.

Though a new organisation, our development is built on a pilot project, funded by the BEIS Retrofit Supply Chain pilot programme and support from the Friends Provident Foundation with the development overseen by a partnership between community energy organisation, Carbon Co-op and design and research cooperative, URBED (Urbanism Environment and Design) Ltd. People Powered Retrofit will be staffed by a mixture of workers seconded from these organisations and newly recruited staff.

Key business areas

Our business is focussed on delivering whole house retrofit for owner occupiers in Greater Manchester and beyond and to support like-minded providers to offer similar services elsewhere, providing the software tools and training services necessary to do so.

We offer three service areas:

- **Retrofit services** provided directly to householder clients in our local target area.
- **Supply chain training services** to supply chain partners and commissioning organisations.
- New **Retrofit Software Design tools** to enable other providers to deliver retrofit.

Highlights from the rest of the business plan

In order to capitalise this new business, we will issue withdrawable share capital (community shares) in the newly incorporated People Powered Retrofit Limited community benefit society.

- We will attract £550,000 in community shares investment.
- We will provide development capital and working capital to establish and market the services.
- We will create social impact through climate change-based education and awareness campaigns, a focus on local employment and encouraging those traditionally marginalised from construction to enter the profession.

In line with our social mission and commitment to environmental justice, we will institute a unique ethical pricing policy, whereby those able to pay proportionally more than those less able to, creating a cross subsidy and lowering entry barriers to those on lower incomes.

Key strengths

- Drawn from Carbon Co-op and URBED, we have an experienced staff team with a strong track record of retrofit assessment, design and construction services.
- We are a new organisation, building on an already existing brand and a strong partnership track record, with retrofit activity already taking place.
- Combining strong, evidenced householder demand with strategic workforce development and training.
- A balance of income generating services and target clients to avoid over reliance on any one audience.
- A novel and innovative deployment of Community Based Social Marketing to kick start a local retrofit market in an area of the UK – replicating an approach which has delivered strong performance results in the USA.
- Good institutional support from key stakeholders such as GMCA, Electricity Northwest, BEIS, AECB, Co-operatives UK and others.

The People Powered Retrofit pilot

Running until March 2021, the People Powered Retrofit pilot was funded by the Department for Business, Energy and Industrial Strategy (BEIS) and run as a partnership project between Carbon Co-op and URBED. The pilot was delivered by an in-house staff team and a range of collaborators from the sector. The pilot focussed on creating a subsidy-free, end-to-end householder retrofit service for owner occupiers in the Greater Manchester area using a local, trusted householder intermediary to deliver the service. Builders, consultants and contractors would be procured by the householders themselves with procurement assistance from People Powered Retrofit.

The concept was to focus on the local scale, with marketing and recruitment and supply chain development focussed on defined local communities, and to target small refurbishment and maintenance builders and contractors, already actively working in homes. The 'people' aspect related both to the co-operative nature of the intermediary but also extensive client involvement in service design, testing and iterative improvement.

The first part of the pilot was a research and development phase including the development of innovative mapping and client persona formulation techniques as well as extensive client engagement. The second phase, in 2020, saw the pilot recruiting householders as paying clients, building capacity and testing supply chain training approaches.

As of summer 2021, the pilot phase has 65 paying clients and has made consultancy sales to other organisations of over £70,000 – responsibility for delivering this work will pass to People Powered Retrofit. The legacy of the pilot has been incorporated into this Business Plan and more detail can be found throughout this document.

For more detail on the pilot see appendix.

ABOUT PEOPLE POWERED RETROFIT

Our mission is to establish a householder-led, One Stop Shop for Retrofit: helping us to collectively tackle climate change in our own homes.

Basic details: People Powered Retrofit Limited, Bridge 5 Mill, 22a Beswick Street, Manchester M1 1HR, Society Number pending registration with the FCA

Organisational structure: Charitable Community Benefit Society

Registration Number: 8656 Registered: 21st June 2021

How the Society came about: the organisation was formed after the successful piloting of the People Powered Retrofit service by Carbon Co-op and URBED between 2018 and 2021. Having demonstrated demand, it was clear a new sustainable community business could be formed to deliver the service to scale. The founding board is made of experts from around the retrofit sector, committed and enthused by our mission.

People Powered Retrofit's Purpose

We have established People Powered Retrofit:

- To develop and deliver domestic energy efficiency, energy management and renewable energy generation services in Greater Manchester and beyond, as a means of climate change mitigation and adaptation and fuel poverty alleviation.
- To disseminate models and educate the public, policy makers and civil society on effective approaches to domestic energy saving.
- To advocate for citizen involvement in the energy system, and support the work of community energy organisations, in the United Kingdom and beyond.
- To promote environmental justice and work to address the causes of fuel poverty and other impacts associated with the use of energy in the home.

Our vision

Our vision is to:

- Create an independent, trusted, end-to-end service, involving householders as members and owners of the organisation.
- Help clients overcome the barriers to commissioning retrofit
- Develop capacity to meet untapped demand for retrofit
- Offer software and training services to help like-minded organisations follow our lead.
- Inspire and collaborate with others in the UK and Europe who share our vision.

We face a real and growing threat in the form of climate change and a significant part of meeting that challenge is to retrofit many of the UK's existing 29 million homes to make them more efficient and lower emitters of carbon emissions. And we know that refurbishing our ageing housing will have many other benefits, improving the health and wellbeing of residents, tackling fuel poverty and building a new, skilled workforce.



Until now, policy makers and the market have struggled to develop effective retrofit delivery solutions and our research has shown householders lack an understanding of where to start a retrofit, can't find the right technical expertise or builders, hear conflicting advice and are overfaced by the decisions they face.

As we have shown, **there is more than sufficient demand to drive the retrofit market in our target area and the challenge is to correctly identify client motivations and needs and deliver services that meet them.**

People Powered Retrofit combines the accumulated expertise of two organisations; Carbon Co-op is an innovative member-led social enterprise that for the past ten years has been devising new grassroots strategies to radically decarbonise our homes and communities. URBED is a long established design consultancy with an architectural specialism in home retrofit.

Over the past two years we have piloted the People Powered Retrofit approach, using Government support to develop an innovative new service and working with householders to retrofit their homes and with builders to skill up to meet demand. Our work has identified significant untapped householder demand and we are seeking investment to establish and grow People Powered Retrofit Limited and to build the capacity needed to meet this demand.

We will establish People Powered Retrofit as the trusted retrofit service provider in the Greater Manchester area, working with engaged, early adopter householders to help make complex decisions, simplifying the process and ensuring high quality works carried out by competent, skilled contractors.

The development of new open source software design services will allow us to support other retrofit designers to meet untapped demand for retrofit, whilst a bespoke supply chain training programme will help develop an appropriately skilled, locally-based workforce.

Retrofit and our approach

What is retrofit?

Our homes are responsible for around 20% of the UK's carbon emissions¹ thanks to the poor levels of energy efficiency in most housing and the fossil-fuels that are burned to supply the large amounts of energy needed to provide heat and power. Whilst we could, in theory, build new low-carbon houses and flats, replacing all existing buildings would result in significant carbon emissions from demolition, production of new materials and construction activities. The social and economic costs of a major new build programme would be enormous. It would also take time so that we do not have to tackle the climate emergency. As a result, more than 90% of today's homes will still be standing in 2050 and we need to decarbonise these homes as soon as possible.

1. [UK housing: Fit for the future?](#), Committee on Climate Change, February 2019

The only feasible solution is to retrofit (retrospectively-fit) improvements. This can include upgrades to wall, floor and roof insulation and draught-proofing or airtightness works, as well as replacement high performance windows and doors. This often also includes better ventilation systems. This reduces heat loss, making it easier to keep homes warm. Simple improvements to efficiency can also be made to lighting and hot water fittings. The resulting lower demand for energy makes replacing inefficient fossil-fuelled heating systems with low carbon alternatives easier. Energy generation technology like solar photovoltaic panels can be added – and smart controls can enable carbon emissions to be reduced further.

When done well, retrofits that include some or all of the above result in significant reductions in energy demand and carbon emissions, whilst providing improved comfort and a healthier internal environment. To achieve this whilst avoiding unintended consequences a holistic systems-based approach must be taken. Project briefs, assessments and retrofit designs should consider not just energy demand and carbon emissions, but also repairs and maintenance, the control of moisture and humidity, the quality of the internal environment including the mitigation of potential pollutants and hazards, heritage and aesthetic significance – and last but not least the needs and future plans of the resident. This understanding is at the core of the People Powered Retrofit service.

Our approach to retrofit

We have developed our approach through over a decade of policy, technical, design and delivery experience in domestic retrofit. Through a combination of research and ‘learning by doing’ we have developed a thorough understanding of the needs of our customers as well as a solid grounding in the science of both retrofit and responses to the climate emergency. Throughout this we have engaged with and contributed to developing industry standards in retrofit. This has included seeking alignment with and supporting the development of the PAS2035 standard, research with and on behalf of BEIS and contributions to various professional networks and associations in the sector.

Our approach flows from a set of key principles:

Whole house

We think about each home as a set of interacting systems. These systems include tangible things like energy use, building condition and moisture management – but also less tangible things like aesthetics, heritage value and householder desires. We use a model that includes all energy uses – including appliances and cooking – not just those covered by the building regulations so the full impact of the home’s systems and their potential for change can be understood. We consider retrofit measures together, rather than in isolation – developing a holistic understanding so that we can effectively evaluate the relative effect of different improvements. This also allows us to identify how improvements can work together to create better outcomes and reduces the risk of negative unintended consequences.

Whole System

We see homes as part of the wider energy system, rather than as energy islands:

- When generation is added to a home, we view this as part of the decarbonisation of the whole energy system – rather than seeing the carbon savings that result as ‘belonging’ to that individual.
- We measure and target improvements in the context of a decarbonising national electricity grid, so our focus is on reporting energy use as measured in the home, rather than just carbon dioxide emissions or primary energy. If the focus was on carbon dioxide emissions alone, it would give a potentially misleading picture, as this is an average for the grid as a whole that changes over time. In contrast metrics like space heating demand and energy use intensity are measurable properties of a particular home – and so useful in informing retrofit decision making and monitoring or impacts.
- We suggest that switching from fossil fuelled systems to electrically fuelled ones might be the right approach for some, but in a poorly insulated home it is likely to be costly to run and will result in increased strain on the electricity grid when compared with a home where demand has already been reduced. This then results in the need to then build more renewable generation capacity. To avoid this, and to support the decarbonisation of the whole energy system, we focus on reducing demand alongside decarbonising energy supply.

Fabric first

We take a 'fabric first' approach in considering retrofit improvements. We prioritise repairs, insulation, draught-proofing and ventilation ahead of 'add ons' like solar panels. We do this for a few reasons:

- We know this approach works and is reliable. 'Fabric first' done well reduces the risk of a 'performance gap' between design expectations and built reality.
- It has many co-benefits. It makes homes more comfortable and easier to keep warm and healthy, as well as protecting the building fabric.
- Reducing energy demand first makes it easier for efficient building services to meet household needs.
- To enable the decarbonisation of the whole energy system we need to reduce energy demand. Reducing the need for heat in homes through a 'fabric first' approach will make a big contribution to this.

Science-based Targeting

We set ambitious targets for deep retrofit that are in line with expert climate science and national legislation, and review these regularly. We demonstrate in our assessment scenario planning and design work how these might be achieved. This is so that householders understand the full range of possibilities and how they might make their homes 'zero carbon ready' using technologies that are available now – rather than focusing on minor incremental improvements. Taking a scenario- planning approach allows householders to understand how they can tackle this work in manageable phases.

Promoting Carbon-free heat

The biggest use of energy in most homes is heat, which is often provided by fossil fuelled systems like gas boilers. This needs to change quickly. We generally suggest that a fossil-fuel free heating system is fitted once a home has achieved sufficient energy demand reduction for such a system to be appropriate and affordable. These are usually electrically fuelled systems – which are future-proof so that as the grid continues to decarbonise, the home will continue to do the same – and eventually will be able to provide zero carbon heating.

We do not normally recommend new fossil-fuel based systems. We also do not suggest biomass or wood-based heating systems. This is because burning wood causes air pollution, which has a negative impact on public health, particularly in urban areas. It also emits carbon dioxide at a similar rate to burning fossil fuels and relies on new growth reabsorbing these emissions for its claim to be low carbon. Given the limited time we have to tackle climate change, we believe this is inappropriate.

Considering 'up front' impacts

Retrofitting rather than building a new home immediately significantly reduces the environmental impact, including embodied carbon and energy. This is because it re-uses existing materials and infrastructure. When considering retrofit interventions we suggest lower impact options for retrofit measures where we can. This considers issues like deforestation, pollution, toxicity and health effects, as well as the energy used to make new materials.

Minimising the Performance Gap

In too many projects there is a gap between expectations and reality, in energy savings, carbon emissions or comfort and the experience of residents. This can be caused by a range of factors including incorrect assumptions in modelling and design, poor detailed design, and/or poor quality control during construction. We work hard through all of the stages of our process to minimise this – by making informed assumptions at assessment stage, through high quality design that considers both performance and practicality, through quality assurance during construction, and through well thought out commissioning and handover processes – all complemented by post-completion monitoring that feeds continual improvement.

Accommodating variety

Whilst some policy makers have advocated the automation of domestic retrofit, such approaches do not take into account the wide range of motivations, constraints and property types that we have encountered in our work on retrofit. Through the service design process we have standardised our processes whilst still accommodating a high degree of variability in project scope and context. We then work with SME contractors who are well placed to manage this variety effectively on site – both in dealing with



logistics and in limiting overheads and on-costs. We know that the repetition, simplicity and scale required to make off-site manufacture and automation at construction stage feasible cannot be achieved within the target market of People Powered Retrofit. We also believe it does not meet the needs of our customers.

We're not builders!

People Powered Retrofit does not engage directly in contracting or installation of retrofit measures, i.e. carrying out the actual building works. We don't see this as being the role in which we can add most value to retrofit in our target market. This is because the key barriers to retrofit among our target market include a lack of understanding of what improvements to carry out and the fear that works might be done badly or go wrong. Our skill, expertise and uniqueness is in offering independent client orientated services to overcome these and build trust.

As identified in PAS2035, there is a potential conflict of interest between advising householders on what improvements to adopt and acting as contractor who sells and installs these interventions. Taking this approach would potentially damage trust in People Powered Retrofit's status as a disinterested intermediary to support householder decision making, and impinge on our ability to provide quality assurance during construction. As well as this, the business model for contracting is very different from that of offering retrofit consultancy services with very different dynamics relating to how jobs are approached and cashflow is handled. We believe that combining the two modes of operation in one entity would be both risky and counter-productive.

Instead People Powered Retrofit helps the householder to plan their works and assists them in procuring the contractor they need. We work with trades and SME builders to support them to deliver more and better retrofits, whilst maintaining our independence and assuring quality throughout the works process. This requires close collaboration with contractors, but at all times as the householder's consultant and advocate. We have a database of contractors and an onboarding system to vet them and log quality assessments (positive or negative). We also have a range of Retrofit Training services to ensure the contractors we work with have the right skills and to grow the sector's capacity as a whole.

People Powered Retrofit's Goals

Immediate

In the next three to five years, we will:

- Establish and grow the UK's first householder-led retrofit provider.
- Build a householder retrofit service to retrofit 170 homes per year within three years.
- Create Retrofit Designer software tools for 100 paying clients a year within three years.
- Generate over £100,000 a year in retrofit supply chain training income within three years.

Long Term

Beyond the next five years, we will...

- Build a retrofit service that can tackle thousands of retrofits per year.
- Develop a holistic retrofit training offer that meets the needs of the local supply chain and can be applied in different parts of the UK.
- Create software packages supporting all stages of retrofit delivery and integrating into smart, wider energy system solutions.
- Support the social franchise replication of People Powered Retrofit services more widely across the UK and Europe

Governance and Structure

We are constituted as a Charitable Community Benefit Society using Co-operatives UK model rules. We are members of Co-operatives UK and subscribe to the seven international co-operative principles.

Constituted in 2021, People Powered Retrofit is driven by householders in Greater Manchester, eager and motivated to make changes to their homes in order to tackle climate change and understanding that 'people powered' co-operative approaches are more effective than the alternatives.

Membership

Integral to our trusted role is our status as a member-led organisation, members are the ultimate owners of the organisation and help ensure our activities meet our mission. Our members will be drawn from investors in the founding share issue and householder clients who choose to join the society via an open share issue (launched after the completion of this share issue).

A member engagement strategy will be put in place and will include regular online member sessions, an online forum and an Annual General Meeting.

In order to ensure the diversity and make up of the membership reflects that of the local area, we will put in place a Diversity and Inclusion policy to improve the diversity of representation and involvement at all levels of the organisation.

People Powered Retrofit board

We have put together a strong founding board that brings together knowledge, skills and expertise from across the retrofit sector. With increased use of video conferencing we are able to benefit from expertise from beyond Manchester. In order to maintain the founding mission of the organisation and preserve the accumulated expertise of the founding organisations, Carbon Co-op and URBED will hold custodian trustee board roles.

Following the share issue raise an annual general meeting will take place within 18 months at which all appointed directors will stand down. Then at every subsequent AGM one-third of elected Directors will step down. The board will be elected from the membership, with up to two additional board places available for co-opted directors. The board will also always include two board members appointed by each of URBED and Carbon Co-op as custodian trustees.

There is no bar within our rules and governance to prevent board members working as staff members, only preventing board members from being paid to act as board members. As such, Jonathan Atkinson and Marianne Heaslip will hold dual roles as board and staff members.



Committee members



Marianne Heaslip MArch MSc ARB RIBA URBED

Marianne is an architect and Associate Principal at URBED where she leads many of the architectural and retrofit projects whilst also feeding her knowledge of sustainability into urban design work. She has particular expertise in retrofit, low carbon design, building performance evaluation and participative design.

She has more than a decade of design experience on live retrofit projects and has been involved in the development of policy and tools to support domestic retrofit through the development of Home Retrofit Planner service and involvement in projects such as Carbon Co-op's Community Green Deal. She also delivers training, development work and design work for a variety of community energy and community-led housing organisations, whilst working on scaling up retrofit in social housing – from TSB's (now InnovateUK) Retrofit for the Future, through work with housing associations and local authorities across the country to achieve real world decarbonisation and user-friendly outcomes.

Throughout her career Marianne has also engaged in and developed participative design processes, creating effective collaborations with building users in training and by integrating with low carbon designs for projects like Squash in Liverpool 8, Homebaked Community Land Trust in Anfield, and the Proud Trust's LGBT+ Centre in Manchester.

Marianne is a registered architect (ARB), a chartered member of the RIBA and will soon join the conservation register. She is a member of the AECB (Association for Environment Conscious Building) and trained as a Passive House Designer. Marianne studied for the CAT MSc programme, passing with distinction and is an affiliate member of CIBSE and part of their Knowledge Generation Panel.

She sits on the retrofit technical working group at the UK Centre for Moisture in buildings and has recently joined that expert panel at Northern Housing Consortium's citizen's jury on climate. She is a regular visiting lecturer at University of Bath, and has taught at the Sheffield, Manchester, University of Liverpool and LJMU Schools of Architecture and is supervising a PhD on 'Retrofitting Neighbourhoods'.



Jonathan Atkinson, Carbon Co-op

Jonathan studied Environmental Science at Manchester University before working at the Ethical Consumer Magazine as a writer/researcher for five years. In the early 2000s he was involved in a series of environmental direct action campaigns as part of the Earth First! network and co-founded the Rising Tide climate change network in 2001. In 2002, he set up the radical art and design co-operative Ultimate Holding Company before working freelance as lowwintersun helping clients including New Economics Foundation, the Co-operative Group and a number of local authorities instigate new co-operative, creative and environmental projects.

He co-founded Carbon Co-op with Nick Dodd from URBED in 2006 and was part of the early development of the Community Energy movement in the UK, with Carbon Co-op shortlisted for the Big Green Challenge prize in 2008 and Jonathan taking part in the NESTA-initiated Community Energy action learning set during 2009–2010.

During his time at Carbon Co-op he has been involved in new project development and the project management of new, innovative and ambitious projects. He has fundraised many millions of pounds of income and has managed a series of large scale, innovative projects including Community Green Deal (2012–2015), Nobel Grid (2015–2018), My Home Energy Planner (2014–2015) and the People Powered Retrofit pilot (2018–2021). As well as his work at Carbon Co-op, he authored a Community Share issue for the George Street Community Bookshop in Glossop during 2018 where he remains a director and is on Power to Change's Community Business Panel.

Kate De Selincourt, Journalist

As a writer and editor on the environment, sustainable building, and energy and a member of the AECB, Kate is a well respected figure in the retrofit sector. She has a technical understanding of many aspects of building performance, building and retrofit safety, and health in buildings. Kate sat on the People Powered Retrofit pilot stage advisory board.

Kate says: "As a writer my work tends to be theoretical; it has been a privilege to be involved in something as well-designed and 'real world' as the People Powered Retrofit service so far and I have learned so much. I really want to see the approach succeed, and if I can help it happen, that would be very satisfying."

Barbara Lantschner, John Gilbert Architects

Based in Glasgow, Barbara is a Building Performance Specialist at John Gilbert Architects and heads up their Hab-Lab projects. She has expertise including deep retrofit advice, PAS 2035 assessment, Post Occupancy Evaluation, energy efficiency assessments, energy modelling and performance gap assessment. She holds a Level 5 Diploma in Retrofit Coordination and Risk Management as well as being a Certified Passivhaus Consultant/Designer.

Her motivations are to share and bring on board her experience on social and private deep retrofit projects, including whole house retrofit strategies, performance gap assessments.

"I am interested in focusing not only on technical consultancy but also on the 'human' factor affecting retrofit and community based projects. To contribute and to get involved in this amazing project!"

Gervase Edward Mangwana, Retrofit Practitioner & owner/director, Waxwing Energy

Another AECB member, Gervase entered the field of low energy building after studying a Masters in Renewable Energy and the Built environment at the Centre for Alternative Technology in 2009. Since then Gervase has done further training in building applications of infra-red thermal imaging and airtightness testing.

Gervase became involved with URBED in 2015 through its collaboration with Carbon Coop to develop the whole house retrofit assessment tool. He now carries out assessments using "Home Retrofit Planner" and has also helped in the development and testing of the online tool.

Gervase also has seven years experience as a trustee/director of the million pound turnover Vipassana charitable trust, including two years as treasurer.

"I would love to be involved in the next stage of People Powered Retrofit having seen it grow over the years. I am keen to learn processes at a deep level to assist replication of the model elsewhere."

Andrew Northcott, Project Manager, energy advice and retrofit services

Andrew is a Project Manager on Domestic energy efficiency in the Energy Team at Cumbria Action for Sustainability, and created 'Cold to Cosy Homes Cumbria' and 'Retrofit for Cumbria'. He specialises in home energy advice, home energy audits, retrofit training, funding strategy and developing a retrofit co-ordination service.

"I want to provide guidance and related experiences to People Powered Retrofit on delivering retrofit services, client services and supporting systems, energy audits, contract management".



Dr Gemma Jerome, Building with Nature

Gemma is an environmental planner with a specialism in the delivery, management and maintenance of green infrastructure. She chairs the British Standards Institute panel for the emergent Biodiversity Net Gain standard, and sits on the advisory group for the Natural England Green Infrastructure Standards Project. She has experience of community-scale organisation, co-operative set-up and running and board directorship.

“I believe in the vision of this organisation and would love to see it flourish to help communities face the stark challenges of climate chaos in a very practical way.”

Conflicts of interest

We recognise a risk of conflicts of interest may arise from Carbon Co-op and URBED being contractors to People Powered Retrofit in the early stages of the business in addition to nominating custodian trustees. As a result, we have ensured there are a minimum of three ‘non-conflicted’ board members enabling the committee to be able to take decisions. We will follow best practice on conflicts of interest as set out by Co-operatives UK and should it be necessary, those conflicted board members will step out of key decision making.

Our Registered Rules are very clear on how we deal with conflicts of interest in Board meetings. “A Director shall declare an interest in any contract or matter in which s/he has a personal, material or financial interest, whether directly or indirectly, and shall not vote in respect of such contract or matter, provided that nothing shall prevent a Director voting in respect of her/his terms and conditions of employment or any associated matter.”

In addition to this, it’s the ambition of both URBED and Carbon Co-op to eventually relinquish custodian trusteeship at a point when People Powered Retrofit’s values and mission are sufficiently embedded into the organisation.

Key staffing roles

Key staff team members

Marianne Heaslip, Technical Director

Jonathan Atkinson, Business Director



Marion Lloyd-Jones, Service Design Lead

Marion has a background in Environmental Management and Health & Safety, and PGDip in Sustainability and Adaptation in the Built Environment from the Centre for Alternative Technology. Since 2020, she has worked on the People Powered Retrofit pilot, carrying out Home Retrofit Planner assessments and has become part of the service's management team with responsibility for service design.

Marion joined Carbon Co-op's retrofit team in May 2019 to focus on the Friends Provident Foundation-funded, Energy Empowerment Greater Manchester project. Over the past two years she has worked on developing householder engagement, support and training offering.

Since 2020 she has worked on the People Powered Retrofit pilot, carrying out Home Retrofit Planner assessments and has become part of the service's management team with responsibility for service design.



Lewis Sharman, Customer Experience Manager/Retrofit Advisor

Lewis has a degree in Product Design and is working towards an MSc in Building Information Modelling and Digital Built Environments. He has worked across a range of public services including the North West Construction Hub and is experienced in construction procurement and framework management.

Lewis began working on the People Powered Retrofit pilot in August 2020 as a Retrofit Advisor and is now part of the People Powered Retrofit service management team devising new client management systems. In May 2021 he graduated from the AECB's CarbonLite Retrofit programme.



Aneaka Kelley, Supply chain engagement

Aneaka began working at Carbon Co-op in 2015 and has covered a variety of roles including membership officer and training programme manager. More recently she has developed a series of projects highlighting the need for great quality and client engagement for retrofit projects delivered for energy vulnerable clients. During the People Powered Retrofit pilot she has led on supply chain engagement work and the development of our contractor training programme.



Helen Grimshaw, Retrofit Evaluator

Helen is a senior sustainability consultant at URBED and has developed expertise in post-occupancy and building performance evaluation, conducting assessments of new and existing developments. She worked with Shortwork assisting in the evaluation of the People Powered Retrofit pilot and will act as a Retrofit Evaluator for People Powered Retrofit helping to assess the impact of retrofit improvements on client's homes.



Diana Tarcatu, Retrofit Designer

Diana has worked at URBED since February 2021, working as a Retrofit designer after graduating with a Masters in Sustainable Architecture from the Centre for Alternative Technology. A qualified Retrofit Coordinator, she has a keen interest in reuse in construction and has written her thesis on using tools to reduce embodied emissions using natural materials which fueled her interest in retrofit.

Anna Sidwell, Home Retrofit Planner Product Owner/Software Engineer

Anna has many years of experience within software development joining Carbon Co-op in 2018. Based in Berlin, she has iteratively developed Home Retrofit Planner including migrating the tool to a new software stack in 2019 as part of the People Powered Retrofit pilot. As well as coordinating software development she has recently taken on project owner responsibilities for HRP.

Consultants

In addition to the staff team, People Powered Retrofit benefits from a huge range of consultants and subcontractors working in a variety of roles. These include: Richard Shears, Snugspace/Retrofit Hub, assessor, coordinator, contractor; Nick Parsons, Sustainable Building, assessor, course tutor; Liam Schofield, air tightness training and assessment; Jo Parkin, My Home Energy Rating, assessor, coordinator; Florence Collier, Humblebee Eco, energy services engineer, assessor; Andy Vaughan, assessor; James Woolgrove, assessor, CDM consultant; Paul Grimoldby, coordinator

Recruitment

A Training Manager and Contracts and Supply Chain Officer are currently being hired. After the share issue we will recruit a Finance and Operations Director, to join the management team, overseeing financial planning and management and having a role in directing operations.

Operational support

To begin with, core operational support will be provided by Carbon Co-op and URBED on a contracted basis, during year 1 this will transition to in house operational staffing. Cost savings will be achieved through organisational resource sharing i.e. of offices and core services. Financial bookkeeping services will be provided by Third Sector Accountancy co-operative and HR service by People Support co-operative.

Partners and stakeholders

Carbon Co-op and URBED

The pilot of People Powered Retrofit was delivered by an unincorporated partnership consisting of The Society for the Reduction of Carbon Limited (trading as Carbon Co-op) and URBED, these two organisations are now listed as Custodian Trustees within the rules of People Powered Retrofit Limited.

People Powered Retrofit has been developed in close collaboration with URBED and Carbon Co-op, to ensure the new organisation doesn't replicate or duplicate any existing services. For example, Carbon Co-op will not continue to market and sell Home Retrofit Planner assessments effectively competing with People Powered Retrofit. Instead, the well defined People Powered Retrofit service neatly complements the work of the two custodian trustees. In particular, we believe many Carbon Co-op members are likely to convert into People Powered Retrofit clients, complimenting the work of the two organisations.

Staffing

The new People Powered Retrofit organisation relies on the expertise of staff currently working at Carbon Co-op and URBED. Staff will at first be seconded from Carbon Co-op and URBED to People Powered Retrofit and then during the first 12 months of operation, TUPEd into direct employment. We have sought advice from our HR consultants, People Support, on the TUPE process.

Resources

People Powered Retrofit will benefit from resources, intellectual property and copyright currently owned jointly by Carbon Co-op and URBED. This includes, the transfer of ownership of the People Powered Retrofit brand and all associated branding and marketing materials and the transfer of documentation, the QMS system, the use of the CRM system including access to householder and supply chain data, management systems and client relationship processes, to People Powered Retrofit. People Powered Retrofit will also rely on open source software assets developed by Carbon Co-op, after the first year of operation People Powered Retrofit will have incorporated these assets into its operations.



Operational support

The organisation will operate from Carbon Co-op's offices at Bridge 5 Mill in Manchester, though will seek its own office space as staffing requirements grow.

Wider stakeholders

Greater Manchester Combined Authority: Jonathan Atkinson sits on Andy Burnham's newly established Retrofit Taskforce and has taken part in the development of the Greater Manchester 5 Year Environmental Plan and Mayor's Green Summit organising group. Jonathan and Marianne sit on the Low Carbon Buildings group and have contributed to development of GM Retrofit Accelerator and GM Low Carbon Buildings strategy. In time, the GM Retrofit Accelerator will provide important structural support to the development and delivery of People Powered Retrofit.

Electricity North West: Jonathan Atkinson sits on a series of Advisory boards including Environmental Sustainability and the CEO's panel.

AECB (Association of Environment Conscious Building) and Passivhaus Trust:

Marianne Heaslip is a member of the AECB and Marianne, Jonathan, Aneaka and Helen have spoken and presented at past AECB annual conferences and Marianne spoke at the Passivhaus Conference 2020.

Green New Deal: Jonathan Atkinson was involved in the development of Green New Deal UK and People Powered Retrofit are supporters of the GND vision of a prosperous and diverse climate change movement.

PAS2035 research and evaluation from the People Powered Retrofit pilot has been used to influence the development of PAS2035 and Aneaka Kellay has joined the BSI retrofit standards task group to advocate for a citizen-centred approach.

BEIS Jonathan Atkinson and Marianne Heaslip have contributed to a series of BEIS consultations and Calls for Evidence, People Powered Retrofit hold ongoing, quarterly contact meetings with BEIS civil servants in the retrofit team and People Powered Retrofit were quoted in the recent release of the BEIS Call for Evidence on Improving the Energy Performance of Owner Occupier Homes.

Housing Associations: representatives from Greater Manchester housing associations sat on the Advisory Group for the People Powered Retrofit pilot stage project, Marianne Heaslip has worked with a series of housing associations and spoken at conferences including the Northern Housing Consortium Housing Strategy Conference 2020.

Commitment to inclusion and diversity

As a socially responsible, member-led organisation, People Powered Retrofit is committed to carrying out its operations in an inclusive manner and in a way that reflects the diversity of the area in which we are based and operate. Sadly, the retrofit sector and construction generally, is a sector which often fails to adequately reflect the diversity of that wider society, and the environmental movement is one often characterised as white and middle class.

As well as developing a strategic Diversity and Inclusion policy, we will take meaningful steps to promote diversity and actively challenge the barriers people face. These include:

- Strongly and publicly advocating for diverse representation within the sector.
- Showcasing and platforming a diverse range of people from the sector in the events we run.
- Offering additional support for those marginalised to enter the sector.
- Refusing to speak on all male panels and at other events which platform overt forms of discrimination.

PRODUCTS AND SERVICES

With the aim of becoming a 'One-Stop Shop' for retrofit, the society has developed three income generating centres that target different clients and customers within the retrofit value chain and comprise a range of domestic and non-domestic clients and commissioners.

Though there are crossovers between the business centres, each has its own distinct staff team, with a management team including Marianne Heaslip and Jonathan Atkinson having oversight of the organisation as a whole. Links will be made between services to maximise learning and create opportunities for new sales and services.

Learning and evidence from the People Powered Retrofit pilot can be found documented in the report: People Powered Retrofit report: a Community led model for owner occupier retrofit Project Report (June 2019). The report summarises early-stage research finding, summarises evidence for the approach and documents the experience of clients, contracts and other stakeholders.





Inheritance from People Powered Retrofit pilot

On establishing People Powered Retrofit as a new registered society, Carbon Co-op and URBED have provided access to a range of pre-existing assets to enable People Powered Retrofit to effectively deliver its core business plan. These include:

- The client base built up during the pilot phase.
- All branding and marketing assets.
- A bespoke householder client and contractor CRM system.
- The Home Retrofit Planner online tool including assessment report templates and libraries.
- A range of client management and service management software tools.
- Bespoke householder and consultant contractual forms.
- The People Powered Retrofit QMS (Quality Management System), including client files and folders.
- The People Powered Retrofit Service Manual which codifies all aspects of the service in detail.

Intellectual property and copyright issues are outlined in Memoranda of Understanding between URBED and People Powered Retrofit, and between Carbon Co-op and People Powered Retrofit.

Householder retrofit service

A simple, hassle-free service, transparently priced and putting householders at the centre.

The householder retrofit service is the core business of People Powered Retrofit and is targeted at 'able to pay' clients, living in the Greater Manchester area and beyond. Our experience, market research and market testing has shown that though there is significant untapped demand for a retrofit service from householders, providers here have yet to formulate viable services that can operate at scale – leaving a significant gap in the UK's carbon reduction strategy. Benefitting from years of experience of Carbon Co-op and URBED's work and development support from BEIS and Friends Provident Foundation, the People Powered Retrofit pilot has demonstrated such a service is well placed to meet demand and quickly grow market share.

The domestic service is split into five distinct stages:

- Advice
- Assessment
- Design development and procurement
- On site quality assurance
- Hand over and evaluation

NB: As outlined above, People Powered Retrofit does not directly carry out contracting work, instead we train and develop a network of contractors and support householders in procuring and assessing the right builders for their job.

Householders progress stepwise through the service, with incremental fees linked to the size and complexity of the project they are commissioning. Depending on ancillary elements opted for, the complete service starts at around £2,800 and ranges on average between 10–18% of total capital costs.

During the pilot project delivered by Carbon Co-op and URBED, the average client budget has been £45,000, however, we have modelled the service to work with a range of categories of client size.

Category	Capital works	Share of total clients sales
Standard	£15,000	30%
Large	£40,000	60%
Very large	£120,000	10%

Pricing the service

In line with our commitment to an Ethical Pricing policy and the principle of Environmental Justice that means those who can pay more should do so, we have created a sliding fee scale that favours smaller less well off clients, reducing the profit margin for these clients whilst increasing it for larger properties.

Percentage fees correspond with the current market rates for architectural on costs of 10–20% in fees – and experience from the pilot has shown clients are willing to pay these fees (due in part to the high-value nature of the service and their uniqueness).

The business plan has been developed to estimate the average daily time commitment of People Powered Retrofit staff for retrofit projects within each of these categories, ensuring clients are charged at a commensurate rate.

Whilst an initial half hour call at the Advice Stage with our Retrofit Advisor is free, the charging of fees at each successive stage of the retrofit ensures good cashflow for People Powered Retrofit and mitigates against the adverse effects of drop out or delays beyond our control ie in the supply chain or with materials etc.

The core Retrofit Service Team comprises Technical and Business management as well as service design, client management and retrofit co-ordination expertise. The team is augmented by Retrofit Assessors and Retrofit Co-ordinators who are brought into the organisation to flex capacity with increasing client demand.

Pre-launch, the People Powered Retrofit pilot has 60+ paying clients within the service. Our projections of growth are informed by our pilot, experience and market research (see Section 5 Marketing, below).

Extensive service design and development work has been completed during the People Powered Retrofit pilot to develop the software and ICT (Information and Communications Technology) systems and processes necessary to take clients through the service. The service has been developed to harmonise with the PAS2035 retrofit quality framework – the industry standard.

Supply Chain

Historically, a lack of supply chain i.e. builders, contractors, consultants, etc, has been highlighted as a limiting factor in the delivery of a domestic retrofit service. The People Powered pilot included the strategic development of a retrofit supply chain in Greater Manchester, focussing on local networks of trusted, small-scale contractors already active within the RMI (Refurbishment, Maintenance and Improvement) sector i.e. carrying out domestic kitchen replacements, loft conversions, extensions etc. Over the course of the pilot we developed a supply chain training programme (see below), a peer support network and an extensive QA and onboarding process for contractors.

A growing list of 335 supply chain contacts (including sole traders and companies) are now available on People Powered Retrofit's CRM system and despite occasional, time-bound pinch points in specific areas such as heat pump installations, we believe we have an available supply chain necessary to resource the service as it grows and develops, particularly in the context of additional local and national government support for retrofit contractor training.

Retrofit software service

Developing effective and affordable software to support professional retrofit solutions.

Energy and data are increasingly interlinked within the low carbon transition and whilst some areas of the energy sector have embraced software solutions and new technologies, retrofit has been slow to adopt these. Using our expertise and knowledge of retrofit and software development and our own retrofit delivery capacity, we will market new, in house ICT services to other providers in the UK, to help them improve and grow their retrofit delivery.

Background

Carbon Co-op and URBED have been developing in-house ICT tools and services to support retrofit delivery since 2012 with the work assisted by grants from BEIS and InnovateUK. Most notably, Home Retrofit Planner (formerly My Home Energy Planner) has used a bespoke software platform to deliver over 150 whole house retrofit assessments to date and is now used by other community energy organisations in Cumbria and Bristol to do likewise.

Whilst a range of other ICT services have been developed over the past few years to support People Powered Retrofit, the Home Retrofit Planner tool is the most mature and presents the best opportunity for commercial sales and replication. The area of deep retrofit is currently poorly served by web-based software tools and we believe there is potential to exploit latent demand and grow a significant market share of the sector.

Development pathway

Using investment from the share issue, we will develop the Home Retrofit Planner tool into two, bespoke new products: a web-based design tool and an organisational assessment service. Both approaches have been developed in response to growing demand from the sector for these tools from customers and to build on existing enquiries and a pilot stage of sales.

The web-based tool is aimed at retrofit designers such as architects, surveyors or retrofit practitioners, working as sole traders or within small practices. For an affordable annual fee, designers will access the tool via a web browser and use it to model complete homes or elements of properties, to assist design work and to aid client decision making. Remote support is made available by People Powered Retrofit in the form of online tutorials, moderated forums and videos.



The other Home Retrofit Planner product is an organisational implementation which for an upfront fee offers a more bespoke service to organisations who wish to provide Home Retrofit Planner assessments as an income generating opportunity. To assist security and autonomy, the installation is made on the recipient organisation's own servers with a white label branded assessment report. On request, the start up package can include the commissioning of new features and modules.

This service requires a project-based implementation phase, with a member of People Powered Retrofit's staff implementation team assessing the recipient organisation's technical and operational requirements and tailoring a package of installation and training to their needs. The service is then deployed under a service level agreement with support available from an account manager at People Powered Retrofit. This service is informed by and builds on existing demand and our experience of replicating the existing tools with other community energy organisations and we believe it has significant potential for growth and to support the development of fee earning retrofit services within the community energy sector (see Section 5. Marketing, for more details of demand).

In order to support both the web-based tool and organisational implementation we will appoint a Product Manager and a software and sales team to oversee development. This work builds on Carbon Co-op's existing software development expertise.

Retrofit contractor training service

Bespoke training, delivered by experienced retrofit professionals.

Over the past seven years, Carbon Co-op has developed an extensive range of householder training courses to help clients build capacity and knowledge on retrofit. In the past year, as part of the People Powered Retrofit pilot, we have developed a new service – contractor and consultant training, to help develop a high-quality supply chain in order to meet growing demand. Our focus has been on working with people within the Greater Manchester RMI construction sector to help them develop the skills to tackle retrofit projects, or people already working within retrofit, to broaden and extend their skills, and support the development of their businesses.

With the assistance of training consultant Safia Griffin, the training offer has developed to the point at which it is income generating. Carbon Co-op has now successfully joined GMCA's Learning, Skills and Education flexible purchasing platform (FPS), enabling them to lead on bids for new devolved retrofit skills commissions – in due course People Powered Retrofit will apply to join the FPS. In 2020, as part of the People Powered Retrofit pilot, 220 retrofit professionals received training and over 800 people accessed specialist CPD sessions.

The People Powered Retrofit training services operate in five areas:

- i) We target trades and contractors already working in construction and offer them basic and advanced retrofit skills via **structured training courses** with both classroom and practical learning elements. Courses include Eco-renovation for Builders, Air tightness masterclass and Hempcrete for Beginners.
- ii) We provide a programme of **specialist retrofit CPD sessions** in key skills areas to professionals and contractors, everything from installing triple glazed windows to specifying a heat pump.
- iii) We deliver **Toolbox Talks** for contractors working on sites, a service which dovetails with our retrofit delivery for householders.
- iv) We offer **bespoke training** for Retrofit Co-ordinators and Retrofit Assessors in PAS2035-harmonised retrofit tools and services, bridging the gap between formal qualifications and onsite works.
- v) We offer **networking, business and professional development** opportunities for contractors and professionals already working in the sector.

Investment will allow us to appoint a Retrofit Training manager to oversee the development and delivery of new services. We will use in-house and external course authors and tutors and this flexible approach will allow us to scale delivery up or down to meet both need and available skills and training budgets.



Future products and services

Once an effective retrofit service has been established, significant potential exists to extend the business through new and developing opportunities. These include the development of so called 'Aggregator/ESCo' services in which retrofit is bundled with smart, high load technologies such as electric vehicles to exploit electricity grid based income streams. The heat pump market is also showing significant growth and much potential exists to offer high value, accurate design services to assist the air source heat pump rollout.

Organisational Growth

The first two years of the business plan period are focussed on establishing the business and building its customer base. From year three onwards the business starts to grow, offsetting the costs incurred during the formative years. Across the business we have struck a balance between exponential growth and slow, incremental development to achieve a rate of growth that we feel is both realistic and achievable. These forecasts are based on sales within the pilot and other professional experience within Carbon Co-op and URBED. This rate of growth is also borne out by other similar organisations, for example, Superhomes Ireland has achieved a rough doubling of householder client numbers over the past five years.

Nonetheless, the rate of growth outlined here entails the organisation growing from a staff team of around ten FTE in year one to 56 in year five. Our organisational and operational model is designed to accommodate this and our management team has experience of overseeing quick organisational growth, in particular Jonathan Atkinson has overseen the development of Carbon Co-op from a small voluntary organisation into a well staffed professional one. To assist this organisational development we will hire a Finance and Operations Director shortly after the share issue.



SOCIAL IMPACT

People Powered Retrofit is a mission driven organisation, as such our theory of change is focused on delivering activity that results in carbon emission reductions as well as other associated social and environmental impacts.

Our key social impacts are:

- Mitigating climate change.
- Improving home environments.
- Improving the health of occupants.
- Reducing fuel poverty.
- Creating a skilled, diverse workforce.
- Generating holistic, local economic impact.

Theory of change

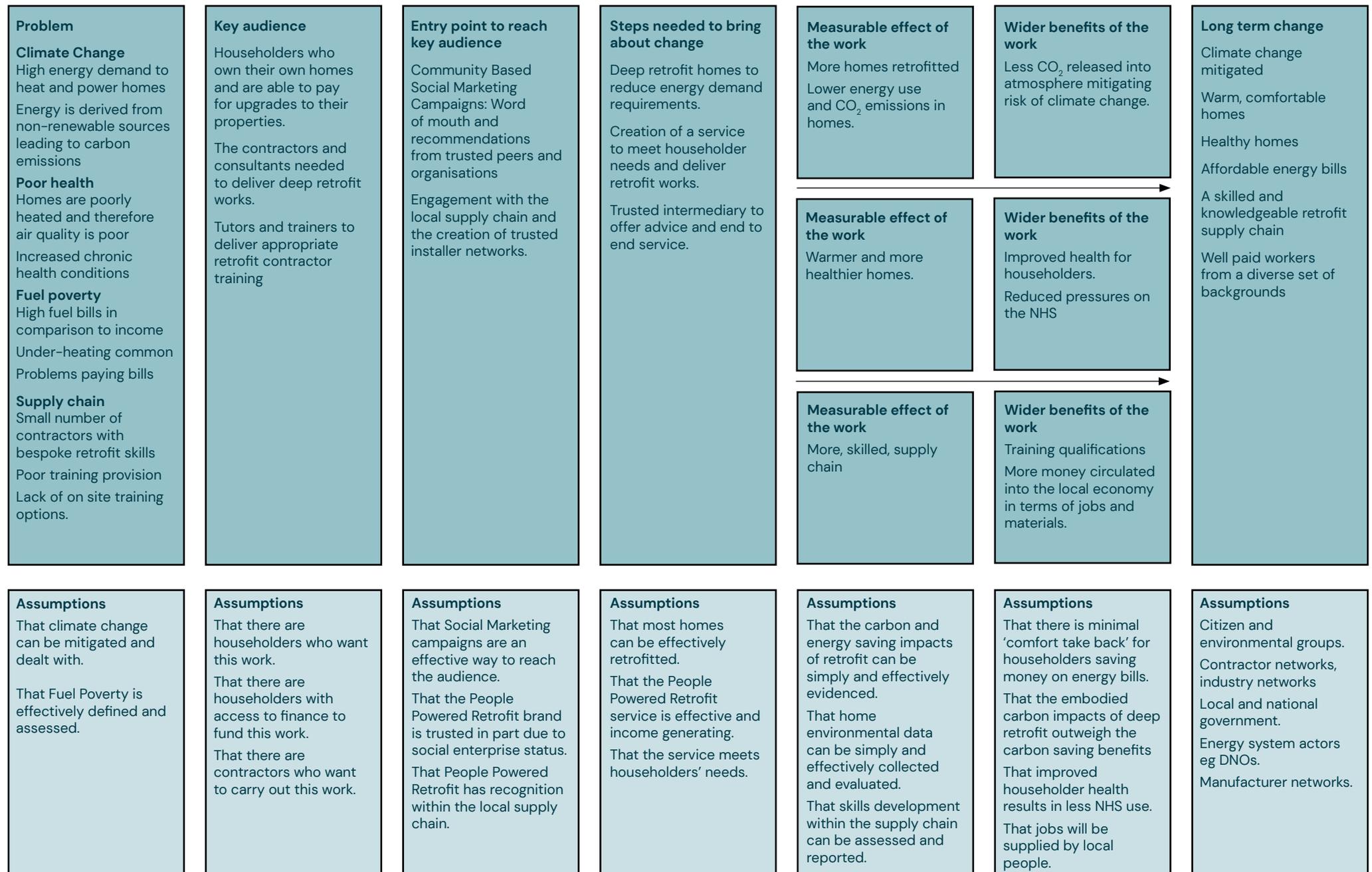
Our theory of change sets out the issues we exist to solve and how these link through our actions and activities to the effecting of long term change. Importantly, the Theory of Change also sets out the key assumptions we have made – these assumptions will be revisited and revised throughout the lifetime of the organisation as they are key to our theory of change.

Our key focus is tackling the causes of climate change and in particular the climate change causing emissions released through the generation of energy used to heat and power our homes. Around 20% of UK emissions originate from domestic homes.

Also important, but less less known, are the health impacts of living in poorly heated and/or ventilated homes, which can be many and various including asthma, eczema and even chronic conditions such as depression.

Finally, there are numerous local economic benefits of developing an effective retrofit supply chain. We believe these benefits are maximised by our supply chain engagement approach of working with small, local companies rather than the large, Tier 1 contractors that policy makers have traditionally favoured to deliver retrofit schemes and often fail to adequately pay or train the local workers they employ.

Theory of change



Social impact measures

In order to better understand our impact and to iteratively learn and improve as an organisation, we will track the key measures that demonstrate the extent to which we are tackling the key problems identified in our Theory of Change.

These impact measures will be reported to the board, members, clients, stakeholders and publicly issued on an annual basis.

The measures are:

- Climate change mitigation (tonnes of CO2 saved per year)
- Home comfort improvements (average temperatures, humidity, thermal comfort assessments)
- Healthy homes (changes in reported health conditions)
- Affordable energy bills (reduction in heating bills, reductions in fuel poverty)
- Skilled and knowledgeable workforce (training and skills attainment measures, employment impact measures)
- Well paid workers (increased employment, pay measures etc)
- Inclusion and diversity (gender, ethnicity, disability diversity measures for members, clients, workforce and contractors)

MARKETING

In this section we set the rationale relating to the market size and dynamics that have in turn informed our financial projections. Our business model incorporates three different services with three diverse sets of end users and this section sets out the market dynamics in each. In later parts of this section, we go on to describe our approach to marketing and client acquisition.

i) HOUSEHOLDER RETROFIT SERVICE

Demographics

Though most clients were from Greater Manchester, the People Powered Retrofit pilot worked with householders drawn from across the North West of England including Merseyside, south Lancashire, West Yorkshire, Sheffield and north Cheshire. In total, this area incorporates 4.5 million people. However, whilst acknowledging that the potential market for the householder retrofit service is very broad, for the purposes of this report, it makes sense to focus on the Greater Manchester area.





Located in North West England, Greater Manchester is a conurbation of 1.2 million homes and 2.8 million people. It is divided into ten municipal boroughs and governed by the Greater Manchester Combined Authority, led by elected mayor, Andy Burnham. Though economically strong the area has high levels of worklessness with pay and living standards stagnating.

Evidence of need for domestic retrofit includes:

- 33% of Greater Manchester’s CO2 emissions are generated in homes,
- 157,000 households (13% of all households) are classified as being in fuel poverty.
- Excess winter deaths are almost three times higher in the coldest quarter of housing.
- Excess winter deaths are linked to cardiovascular and respiratory diseases.

A developing market

Creating a market for retrofit in the UK has always been seen as a challenge. Launched in 2013, the UK Government’s Green Deal programme was designed to support energy efficiency upgrades through a ‘Pay-As-You-Save’ model, with finance used to cover the cost of the installation attached to the property. Take-up of the scheme was very low for a variety of reasons including failing to take account of the complexity of retrofit and householder decision making – particularly when considering multiple measures.

In recent decades, energy efficiency delivery in the social housing sector has been more coherent with programmes such as Affordable Warmth, CERT and CESP incentives often being accessed by housing associations and local authorities. Some public authorities have argued the same approach can be applied to owner occupiers. Our experience shows this is not the case and that instead the needs of householder clients must be front and centre and new forms of engagement and service delivery need to be used.

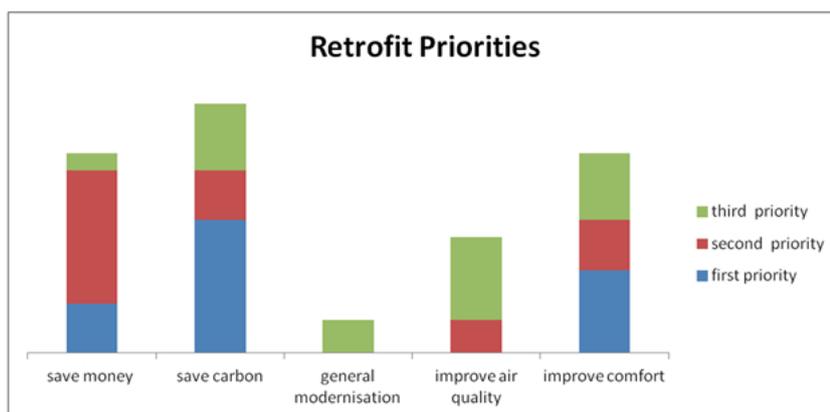
Understanding the market for retrofit

Motivations

An understanding of client motivations is essential in a successful retrofit offer. Over the past decade, Carbon Co-op has built up a wealth of data on the motivations of householders interested in retrofitting their homes, this research was then fed into and tested during the People Powered Retrofit pilot.

We found financial imperatives and ‘pay back’ were not key barriers or driving factors for decision making – contradicting accepted thinking in this area. Instead, householders were influenced by a range of intangible motivations and drivers including quality of

works, climate change concerns, quality of life, health, comfort and home environment and the attitudes of friends, neighbours and co-workers.



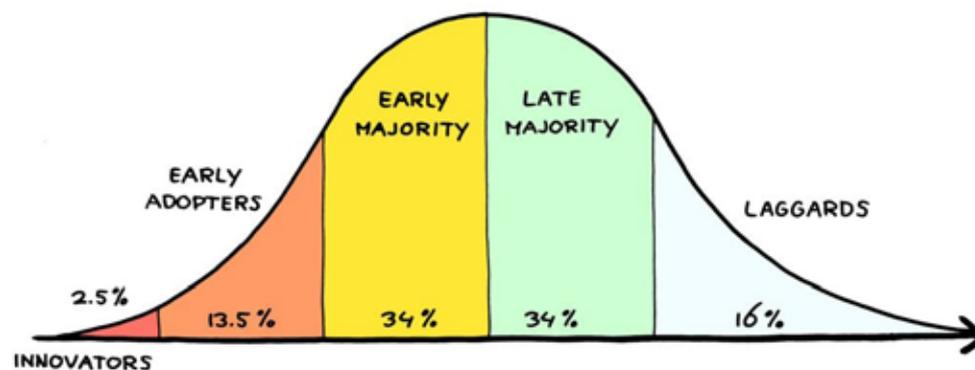
Budgets

During the People Powered Retrofit pilot, project budgets were not found to be a significant barrier to client conversion. Project budgets ranged from a few thousand pounds to over £200,000 but nearly half of respondents had budgets between £5,000 and £50,000 with an average budget of £45,000. Budgets of this order bring deep, whole house retrofit well within reach and enable the service to take 10-15% of these budgets in fees.

Segmentation

A key lesson from the failure of Green Deal was the need to segment retrofit audiences. The well known Rogers Innovation curve divides householders into Innovators, Early Adopters, Early and Late Majority and Laggards. Our focus for People Powered Retrofit is Innovators and Early Adopters as they constitute a targeted but sizeable fraction of the population (around 15% or potentially 225,000 households in Greater Manchester) and are more motivated to commission work and tolerate disruption.

A focus on innovators and early adopters in part explains why the motivations and drivers of target individuals are different from the 'accepted wisdom' of policy makers in the area.



During the pilot, informed by the work of Val Mitchel and Victoria Haines at Loughborough University, we developed a series of 'retrofit personas' to further breakdown target Early Adopter householders. The personas most commonly found in our client group during the pilot were:

- Civic Minded Retirees
- Climate Pragmatists
- Climate Idealists

Taken together, understanding motivations, segmentation and persona mapping provide a set of metrics to find clients, design services and devise recruitment strategies for People Powered Retrofit.

Mapping: Finding retrofit householders in Greater Manchester

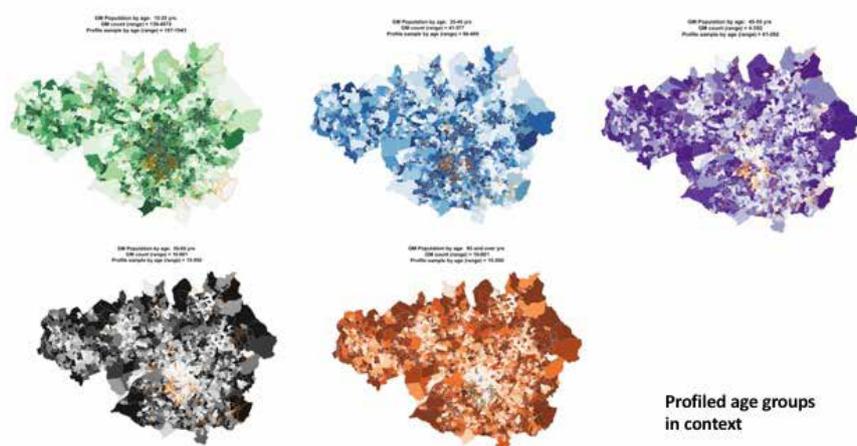
During the pilot, a novel approach to householder mapping was developed that will inform the sales and marketing strategy of People Powered Retrofit. Traditional approaches see retrofit as a standard product or service. But its innovative nature and poor levels of consumer awareness means a retrofit service is best viewed as a 'value network' linking tangible outcomes (insulation and bricks) with intangible outcomes (comfort, sustainability, quality of life).

Standard market profiling techniques generalise, using datasets compiled from individual consumer transaction records. In contrast, our approach has been to identify decision-making characteristics in deep retrofit that do not fit into traditional consumer categories.

The approach was not looking to identify the people themselves – with a relatively small target audience this would be difficult – but rather the kinds of places they tend to live in. This was done by identifying the geographic locations of clients known to have already commissioned retrofit works. Patterns were sought in these neighbourhoods – mapping demographics, housing types, energy consumption and spatial and social connectivity.

This was then used to deduce some of the common characteristics of these areas that made them different. This allowed the creation of a set of criteria that describe neighbourhoods where Retrofit Early Adopter clients are most likely to live. These criteria were then applied to the whole Greater Manchester area to induce a set of target neighbourhoods for the roll out of People Powered Retrofit.

Using this research, a map of target areas was created. The use of data informed decision-making was not the only consideration with local knowledge and qualitative factors also used to shortlist priority neighbourhoods for the pilot service delivery. Clients recruited during the pilot fitted closely into these areas – and this robust mapping approach will be used to inform People Powered Retrofit's recruitment strategy.



More findings from the Retrofit mapping exercise can be found in the People Powered Retrofit Project Report (2019) including information on EPC patterns, housing types, householder characteristics and neighbourhood characteristics.

Creating a market

Key to the success of People Powered Retrofit is having sufficient paying clients to drive the service. Many commentators have mistaken a lack of retrofit activity as a lack of demand from clients. In fact, as Carbon Co-op's retrofit track record has shown and People Powered Retrofit pilot confirmed, demand from householders outstrips capacity and many householders are waiting for an effective retrofit service to be made available. As we set out below, there is more than sufficient demand to drive the retrofit market in our target area and the challenge is to correctly identify client motivations and needs and deliver services that meet them.

We have identified a number of client challenges blocking householder clients from successfully retrofitting their homes. These challenges offer opportunities to businesses that can successfully overcome them and include:

- Low levels of consumer trust in providers and contractors
- Not enough retrofit contractors in the Greater Manchester area.
- Retrofit, in particular ‘whole house’, is complex, householders don’t have the time or the knowledge to navigate the process.
- Householders don’t feel involved in the process and are likely to not sign up or drop out
- Retrofit is seen as abnormal and uncommon, for a few hippies or ‘Grand Design-ers’
- Past schemes have been local authority driven and delivered by housing association contractors
- Though sometimes expensive, evidence suggests cost may not be a major challenge for owner occupiers.

What householders want from a service

We asked householders which services would help progress their journeys, the most popular identified were:

- A People Powered Retrofit Advisor answering questions, offering basic help and signposting.
- The Home Retrofit Planner assessment with an overview of home measures and improvements.
- A detailed design advice service.
- Shared specialist technical advisers.
- A Retrofit Coordinator service to develop plans and procure contractors.
- A basic Quality Assurance framework.
- A complete retrofit service from People Powered Retrofit.

Methods for overcoming barriers and services identified by householders as of interest were in turn used to develop the People Powered Retrofit service offer.

Market research – Carbon Co-op and People Powered Retrofit pilot

In addition to profiling and mapping, we have a wide range of historic data and research from previous Carbon Co-op activity that helps better quantify and understand the potential retrofit market in Greater Manchester, offering evidence of sufficient demand to meet our sales targets.

Carbon Co-op membership

As of May 2021, the Carbon Co-op membership is at 300+ and growing at a rate of 35% a year. Mostly based in Greater Manchester, although members aren’t the same as fee earning People Powered Retrofit clients, they join the co-op to make significant changes in their domestic carbon emissions and during the People Powered Retrofit pilot, many progressed into the service. The growing membership demonstrates growing interest in energy efficiency services of this kind.

Community Green Deal project

Project managed by Jonathan Atkinson with Marianne Heaslip acting as lead designer, Carbon Co-op’s 2015, deep retrofit programme for nine householders in Greater Manchester saw Carbon Co-op act as lead contractor on householders’ behalf. Incentivised by the availability of zero percent interest loans, the scheme saw householders pay Carbon Co-op £320,000 to carry out works across the programme with an average capital cost of £40,000 per property – demonstrating householder willingness locally to pay significant fees for large scale retrofit.

Sales of Home Retrofit Planner

For a number of years, Carbon Co-op has offered Home Retrofit Planner domestic energy assessments (formerly titled My Home Energy Planner) with URBED acting as technical support and assessors. The assessments are priced at between £550 and £1,100 per property (compared to EPC assessments retailing at £35-60 per property), and more than 200 have been sold to date with demand often outstripping supply – demonstrating strong householder demand for high-end, retrofit assessments in GM.



People Powered Retrofit pilot

The People Powered Retrofit pilot developed a client base of over 60 fee paying householders with the average works costs for these clients of £45,000 per property, demonstrating a sizable demand for deep retrofit services. These client numbers can be compared to our business plan sales targets for the first three years of Year 1 - 45; Year 2 - 85; Year 3 - 170.

On several occasions during the pilot, wait times have grown and pauses in taking new clients have been implemented - i.e. there was more than enough client demand and the current key limiter is organisational capacity, hence the need to raise finance to meet this demand. The Covid pandemic has had negligible impact on client demand. On establishment of People Powered Retrofit, clients' contractual arrangements will be transferred to the new organisation.

Householder feedback from the pilot

Quotes taken from householder evaluation work carried out by Shortwork and URBED:

'People Powered Retrofit has empowered and informed me, I feel a degree of clarity around prioritisation of future retrofit measures.'

'We have found the design development service phase for part one just brilliant. To be at this point and still understanding the process and details is through the knowledge I have accumulated within the community - it is the training, workshops, forum and commitments from the team and other members which has brought us this far with confidence.'

'People Powered Retrofit is bespoke ... to [the] client which takes into account priority and vision for the property with the outcome focused on what client wants rather than imposed.'

'Experts who can navigate an often confusing and opaque landscape for those not in the sector.'

'Quality is a big deal.'

Other market evidence for retrofit in Greater Manchester

Other data on householder demand comes from a variety of sources and historically, data held by BEIS has shown strong demand for energy efficiency and domestic solar PV services when these have been available.

Green Homes Grant

Whilst ultimately unsuccessful, the Green Homes Grant scheme offered an excellent guide to householder demand for energy efficiency measures in the North West. For householders outside fuel poverty thresholds, the grant required a match contribution from the householder of a minimum of one third and often far higher given the scope of the measures chosen - ie GHG applications are an indication of demand from fee paying clients - rather than simply demand for a free grant.

8,500 applications were made in Greater Manchester meaning that in year 1 of the Business Plan we are aiming to secure a 0.6% share of this group of already interested and active clients.

Segmentation of Home Energy Improvement Market in Greater Manchester

Research commissioned by GMCA in 2020 (see appendix) suggested that the 'deep retrofit' market segment People Powered Retrofit are targeting represents 72,000 householders (6% of Greater Manchester homes) and that 27,600 householders (2.3% of GM homes) are ready to commission works in the next 5 years.



Home Retrofit Services competition

Given how hard it has been to crack the retrofit market, there are few viable competitors operating in the domestic market.

Potential Competitors	How they compare to us	Their strengths	Their weaknesses	Opportunities
Sole trader and micro-business Retrofit Consultants including Retrofit Designers and architects.	Usually, one off or small numbers of retrofits within a calendar year. Offer highly bespoke services.	Good quality, very bespoke	Less likely to scale, less likely to have the organisational tools to scale.	Potential customers of Retrofit ICT Design Service tools, potential to become part of the PPR supply chain, or for PPR to offer services to these consultants.
Sole trader/SME construction sector	Standard construction sector, often cheaper but less knowledgeable than specialist retrofit companies	Good value, a lot of choice, local, often come by recommendation.	Potential quality concerns relating to retrofit improvements, not able to give recommendations based on energy modelling.	Potential recipients of Supply Chain training, in time forming part of the PPR supply chain.
Community Energy or Social Enterprise intermediaries eg Retrofit Works.	A range of organisations aspire to offer similar services to People Powered Retrofit, many are at an early stage of development.	Community Energy/ Retrofit Works collaborations in Oxford, London and Sussex offer end to end services.	Our understanding is that these approaches are not currently commercially viable and require significant upfront investment to establish.	The size of the potential market is large enough to accommodate multiple approaches. Collaborative partnerships have the potential to establish social enterprises as the main route to retrofit delivery for the owner occupier audience.
Larger Govt and municipal retrofit offers ie GM Retrofit Accelerator	Generally relatively simple, one size fits all measures, delivered by large framework 'Tier 1' contractors and energy suppliers.	Effective at spending government money, good at simple measures with minimal design requirements e.g. solar PV panels.	Lack of a bespoke offer to householders, past quality concerns, labour often sub-contracted, poorly paid and trained.	As PPR grows there is the opportunity to bid into larger municipal contracts and offer a high value, local, service.
National providers	Franchised retrofit providers offering similar, whole house retrofit services.	End to end models that meet householders needs.	Such models are not well developed and often require subsidy as well as an already established local host (which aside from Carbon Co-op, Manchester lacks).	First mover advantage offers People Powered Retrofit the opportunity to offer services to Community Energy groups in other parts of the UK.

Marketing and promotion strategy

Key to making the household retrofit service work is putting in place an effective marketing and promotion strategy.

Marketing objectives:

- Generate sufficient sales to sustain the organisation, in line with the business plan.
- Communicate the values of the organisation and the unique, trusted intermediary status of the business.
- To help achieve the objectives of the organisation and disseminate awareness raising about the benefits of energy efficiency and retrofit to the environment, health and wellbeing.

Sales	Standard	Large	Very large	Total Clients
Year 1	14	27	4	45
Year 2	26	51	8	85
Year 3	51	102	17	170
Year 4	105	210	35	350
Year 5	150	300	50	500

Unique Selling Points

The elements that makes our offer different from others in the market:

- Strong, local, Greater Manchester identity
- Mission-driven organisation, helping to meet the most significant challenge of the day.
- Commitment to local economic development including supply chain development and training.
- Agile, service orientated approach adopting new technology and solutions.
- Member-led, approachable, personal social enterprise.



Communicating the service offer

Key principles for communicating the offer to householders:

- An impartial, independent advice and quality oversight
- A simplified, 'no-hassle' consumer offer.
- A householder-led process that puts clients at the heart of the process.
- A local company based in Greater Manchester.
- A fair, affordable price point for householders with a unique ethical pricing policy.
- A service that progressive, early eco-adopters are looking for.

Recruiting householders – Community Based Social Marketing

Our primary approach to marketing and promotion is to use a Community Based Social Marketing (CBSM) communications strategy.

Low householder awareness and the fact that it is not seen as 'normal' to retrofit a home, has traditionally presented a challenge in marketing retrofit projects. With the use of behavioural insights, social norming, diffusion tactics and community influencers, community based social marketing campaigns can overcome this and win 'hearts and minds' to create sustained change. Social marketing strategies have proved cost effective ways to drive recruitment of socially beneficial activities in areas such as health and wellbeing. In the US, they have been used to promote retrofit – more information can be found in the ['Community Based Social Marketing Toolkit, Better Buildings Residential Network, 2017'](#) and the case study: ['Fort Collins, Colorado, Delivering Greater Energy Savings through Community Based Strategies, Better Buildings Residential Network, 2017'](#).

Carbon Co-op has a track record of social marketing activity including member socials, Green Open Homes weekends, peer learning sessions and energy-related campaigns and during the People Powered Retrofit pilot, a social marketing strategy and toolkit were developed and tested in test sites identified during the mapping phase.

Fieldwork

The People Powered Retrofit brand identity, marketing materials and online presence have been developed by the Fieldwork digital design agency based in Manchester. We intend to continue to collaborate with them to further develop marketing materials.

Community-scale marketing and promotion plans

Based on our mapping and persona profiling work and using a Community Based Social Marketing approach, we will take a targeted approach to marketing and promotions, focussing on specific priority neighbourhoods where clients most likely to procure retrofit live.

6–12 months social marketing campaigns will generate widespread interest and a healthy pool of warm contacts to convert into clients.

In the business plan we have allocated a budget of £100 per client in marketing acquisition costs (excluding staff time). The following table illustrates how a Community Based Social Marketing campaign will break down in one of our target areas.

Activity	Description
Video case studies	Video case studies of client's completed eco-homes shared on social media
Green Open Homes tours	A weekend bus tour of three client eco-homes with other homes open by appointment.
Community business tie in	Exhibition at local social enterprise retail sites and tie-ins with community venues such as local sports clubs.
Leafleting specific streets	Leaflet drops in streets data analysis suggests key targets.
Info Night	Contractor-meet-householder 'match making' evenings to encourage sales.
Social Media messaging campaign	Tie in with trusted local institutions such as Electricity North West and GMCA, involvement of local media, local authorities and local influencers.
Home Energy Parties	Home energy events in member's homes, in which Retrofit Assessors carry out live assessments involving air pressure tests and thermal imaging cameras
Eco-householder amplifier kit	Eco 'Yard signs', members and champions provided with letter template to make neighbours aware of the project.
Community media posts	Posts about the project on local media websites, Radio Manchester morning spot and community radio.
Existing supply chain upselling	Supply chain contractors and architects provided with leaflets and business cards to upsell standard services into the retrofit programme.

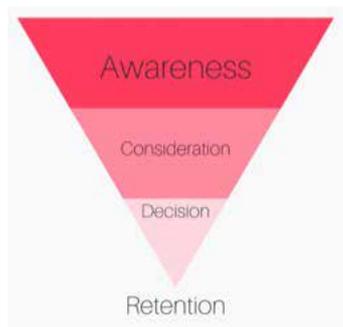
Client Conversions – Learning from the pilot

For a full KPI report on marketing and conversions see Appendix.

During the pilot stage the client conversion rate was evaluated in order to understand the effectiveness of the Social Marketing approach and to inform future client recruitment. In marketing terms, conversion rates are defined as the percentage of people engaged who follow through to a pre-specified goal i.e. the purchasing of a product or service or member registration etc. Conversion can be multi-layered, for example as below, awareness converts to consideration converts to decision. Retention can also be considered within these layers.

Pilot – 2020–21 Conversion Rates

To understand Conversion Rates we recorded those who had directly engaged with the marketing of the service and logged how many progressed through to enquiries and then on to paying clients.



	Number of people	Conversion rate	Retention rate
Engagement	2,040		
Enquiries	130	6.4%	
Paying clients	78	60%	
Retained clients	75		94%

The initial 6.4% conversion rate demonstrates that the required number of engagements is readily achievable in order to achieve sales targets and sustain the service.

How good are these figures by industry standards? As a new and emerging sector, there are few comparisons. There is however lots of data on online conversion rates with anything over 5% conversion being regarded as exceptionally good.

Intuitively, the conversion of enquiries to paying clients appears to be very high, this indicates that people who make contact with the service are serious in progressing – probably an indication of good marketing and communications and means effort can be focussed on serious clients who wish to progress.

Whilst systematic data on why some enquiries don't convert to paying customers is not yet available, anecdotally reasons include being 'out of area' and need to consider the costs of the services.

II) DEMAND FOR SUPPLY CHAIN TRAINING IN GREATER MANCHESTER

A commonly identified barrier to the development of local retrofit markets is the lack of supply chain development. Our service is based on years of engagement with the Greater Manchester retrofit supply chain from Carbon Co-op and URBED and the creation of the Greater Manchester Retrofit Builders Network during the People Powered Retrofit pilot. Also during the pilot, a supply chain training arm was tested that operated in tandem with the domestic retrofit service to expand the supply chain as householder demand grows.

Extensive research has been carried out on the supply chain in Greater Manchester, during the People Powered Retrofit pilot and, in part with our assistance, by the GMCA Work and Skills team. The research can be found within the Sector specific intelligence for retrofit under the GMCA Green Skills Low Carbon Buildings Skills Review. It sets out the skills and workforce requirements to meet already evidenced demand for retrofit (in both the private and public sectors) and the range of training and skills pathways required to train new workforce entrants and the existing construction industry supply chain.

A total of £143m Local Growth Fund Skills capital will be invested in the local Greater Manchester skills and labour market over the next 2 years. Our supply chain training sales target of £503,000 over 5 years would just comprise 0.35% of this investment.

Supply chain training pilot

During the development of the People Powered Retrofit pilot, the availability of a skilled, well trained supply chain was identified as a key barrier to the development of a householder market. As a result, the pilot included the development of a supply chain training offer for new and existing contractors including structured training, specialist CPD, bespoke PAS2035 courses, Toolbox Talks and business networking.

Whilst at first training was delivered face to face, the Covid pandemic saw the transfer of provision to online and later blended learning with no discernable impact on delivery.

During the pilot a bespoke new course was written in collaboration with retrofit practitioner, Nick Parsons, Eco-Renovation is an intermediate level course that offers a basic introduction to retrofit skills for contractors. Over the course of the pilot 300 contractors have participated in 15 courses with a further 950 attending specialist retrofit CPD (Continuous Professional Development) sessions.

In April 2021, People Powered Retrofit was shortlisted for the Ashden Awards 2021 in the Green Skills category in recognition for the work carried out to date.

Contractor feedback

Quotes taken from supply chain evaluation work carried out by Shortwork and URBED:

'I feel motivated and also pretty optimistic that there is a lot of work and opportunities.'

'People Powered Retrofit are really effective at engaging people, and in getting them through the funnel to the point where their work needs to be done.'

'People Powered Retrofit householders are clued up on what they need.'

It 'Help[ed] explore possible career [paths] for myself and [a] direction for my business.'

'Having someone who has the connection or a team they can call on ... who speak the same language ... is really valuable.'

'Everyone is really friendly, yeah it's nice I think when you're dealing with people's houses and homes it is important to be human about stuff and it's a very human organisation.'

'There are enough people and process and robustness in the system - that is where the trust comes.'

Training provider competition

People Powered Retrofit is aiming to create a unique, social enterprise training provider niche in Greater Manchester, acting as a bridge between accredited qualifications and actual onsite delivery and leveraging the householder service with the opportunities for applied, onsite instruction and training.

This table sets out how our offer relates to that of other providers in the area.

Potential Competitors	How they compare to us	Their strengths	Their weaknesses	Opportunities
FE Colleges	Large, community institutions with a good track record.	Institutional scale, can deliver quality training in numbers once provision is ramped up. Can invest in high quality training facilities.	Many invested in retrofit training provision in mid-2010s on the back of Green Deal and lost money when the promised growth of the sector failed to take off.	Potential for PPR to provide expert advice to the training providers themselves. Potential to partner on more innovative project ideas.
National providers	Providers often offering web-based training in specialist accredited training only viable at a national scale, eg related to PAS2035	Unique offer currently unavailable at a local scale.	Lack local involvement and relationships	Partnership potential including acting as the local trusted provider for a national partner.
Social enterprise providers	Smaller charities and social enterprises with niche training offers.	Small, responsive, targeted and niche.	Can't do everything. To an extent they are funding reliant.	Potential to build scale through collaboration.
Construction frameworks	Large construction frameworks require member organisations to engage in training, sometimes as part of a CSR exercise.	Involvement in procurement gives providers an opportunity to contractually require training.	Scale means skills provision may be relatively light touch and lack targeted onsite development.	Potential to build scale through collaboration.

III) DEMAND FOR RETROFIT DESIGN SERVICES

It is increasingly acknowledged that a greater range of software products and tools will be required to support the development of the retrofit market in the UK. People Powered Retrofit uses a number of tools to deliver services, but one open source tool – Home Retrofit Planner, has been developed by our staff team that we feel there is demand for from other potential commercial and Community Energy clients.

Retrofit Designer Software services

A common requirement from Retrofit Designers is a tool to model elements of design, either for part of or a full property. At present there are few software tools available that offer this functionality and a growing demand as more Retrofit Designers enter the market.

Demand

The number of Retrofit Designers is growing fast, designers come from a range of backgrounds and competencies including architects, architectural technologists, surveyors, Retrofit Co-ordinators, Building Service Engineers and specialist designers. This market is typified by sole trader consultants and micro-enterprise studios, few will have dedicated software support staff and budgets are relatively limited – both of which tend towards creating a product that is simple, web browser-based available on a subscription basis.

A measure of the market in this area is the membership of networks and associations:

- AECB: 700+ members
- ACAN: over 500 members

During the People Powered Retrofit pilot we have been fielding interest from a number of practitioners interested in accessing this tool.

Competition

Product	Description	Cost	Difference to HRP web tool
Passivhaus Planning Package (PHPP)	Whole house modelling software	£360	Significantly more complex, web tool pitched at entry level practitioners.
PH Ribbon	Add on to PHPP	£180	HRP more user friendly, simpler to use than PH Ribbon.
Elmhurst	Basic energy modelling tool		Simpler tool not offering the range of functionality of our tool.
Parity Projects CROHM	Whole house modelling software	n/a	Not publicly available.

Organisational Assessment Software services

As well as demonstrating client demand, the People Powered Retrofit pilot has indicated a large number of organisations want to be able to deliver similar services in their locality. In the past 12 months, 30 solid enquiries have been received from other organisations and a webinar on the People Powered Retrofit pilot hosted in June 2020 was attended by 150 Community Energy and local authority practitioners.

People Powered Retrofit is currently actively working with three Community Energy organisations to implement Home Retrofit Planner services.

As a result of this interest we will make our Home Retrofit Planner assessment service available to other organisations on an organisational basis. These organisations will fall under the 'Community Energy' category, i.e. local organisations set up as co-operatives, community benefit societies or sustainability charities.

The Community Energy England State of the Sector 2020 report indicated around a third of CEE's 300 members were involved in some kind of energy efficiency work, though these activities were typically basic and a large number of organisations were interested in expanding provision.

IV) MARKETING THE COMMUNITY SHARE OFFER

In order to market and promote the community share offer, specialist PR consultant Rowan Atkins has been appointed to develop a marketing and engagement strategy and to assist in delivery.

In devising the strategy our partners at Ethex have offered knowledge and expertise. They have advised that a multi-layered marketing and communications campaign would be most effective, exposing potential investors to the People Powered Retrofit message a number of times via different channels. The aim would be to:

- Illustrate the energy efficiency context around retrofit.
- Bring the People Powered Retrofit story to life: show the impact it is having.
- Speak to hearts and minds, strip back the message.
- Build trust and confidence amongst potential investors. They will want to 'kick the tyres' and see a track record, making sure that it all stacks up.
- Show investors how their money will have a big impact.

The detailed strategy can be found in the appendix and includes tactics, personas, approaches and content as well as a review of comparable case studies.

SUCCESS FACTORS AND RISKS

This section sets out the factors associated with the success of the organisation along with an assessment of risks with mitigation strategies. Associated risks to capital can be found in the Tax relief section (below).

SWOT (Strengths Weaknesses Opportunities Threats) assessment

In order to assess success factors we have carried out a SWOT analysis to demonstrate particular areas of strength and weakness.

<p>Strengths</p> <ul style="list-style-type: none"> – Trusted householder service – Experienced and skilled team – Track record of delivery and sales – Good network of supporters and stakeholders. 	<p>Weaknesses</p> <ul style="list-style-type: none"> – Newly incorporated business – New entrant into training and ICT services sector – Service still in the start-up development stage of growth.
<p>Opportunities</p> <ul style="list-style-type: none"> – High and growing demand from householders – Little competition in retrofit service and ICT service sectors. – Retrofit training is a priority in GM and new commissions are likely. – Positive changes to regulatory environment – Funding 	<p>Threats</p> <ul style="list-style-type: none"> – Competition from new entrants – Negative changes to regulatory environment – Large expenditure on software development without return

Risk Register

Including risks along with a risk score assessment and mitigating actions.

Risk	Severity	Likelihood	Score	Mitigation
Poor client take up	3	3	9	Ensure compelling consumer offer and in depth market testing, implement effective marketing strategy. If client sales remain poor, re-evaluate growth plans and focus on the delivery of core profitable services.
Establishment of new, national or local government energy efficiency scheme that competes with People Powered Retrofit	2	3	6	Ensure People Powered Retrofit service emphasises unique selling points and member-led status, ensure these are communicated within the marketing offer. Work with local and national governments to harmonise approaches.
Growing competition within the retrofit sector from private and not-for-profit entrants	3	3	9	Take advantage of 'first to market' status, establish a market within Greater Manchester and work collaboratively with approaches in other parts of the UK.
Poor brand awareness	3	2	6	Focus on effective Community-Based Social Marketing campaigns, maintain good KPI data reporting and where necessary change approach.
Overlap with existing fuel poor schemes	2	4	8	Ensure clarity in marketing materials on positioning of the service and focus on owner occupiers. Include signposting to Fuel Poverty services in marketing materials where appropriate.
Avoiding 'business as usual activity' ensuring project activity is innovative and achieves social change.	2	3	6	Focus service design People Powered Retrofit including evaluation and continuous learning. Maintain good social impact data reporting and where necessary change approach.
Lack of appropriately skilled workforce ie lack of Retrofit Co-ordinators, Advisors, Assessors, contractors etc.	2	3	6	In part focus supply chain training activity as a way of developing the skilled staff required to deliver the service – both in terms of People Powered Retrofit staff and contractors.
ICT development problems and delays.	3	2	6	Focus on deploying software using an Agile approach, ensuring that minimal viable products are released to customers and tested at an earliest phase possible and ensuring multiple development cycles.
COVID related lockdowns and restrictions to service delivery.	2	2	4	Ensure service delivery systems remain COVID safe and that robust H&S and risk management strategies are maintained.
Long term economic instability	2	4	8	Maintain horizon scanning capabilities to monitor potential economic hazards and perturbations. Leave sufficient maneuvering room within finances to alter course if required.
Brexit related supply chain and labour market issues.	2	4	8	Maintain horizon scanning capabilities to monitor potential supply chain and labour market hazards and perturbations. Maintain and develop supply chain links to ensure continuity of supply of materials.

Organisational KPIs

A number of Key Performance Indicators will be tracked across the service to assess performance with the data available to the staff team, the board, members and investors. These KPIs will form a key element of the accountability chain between the staff management team and the board at regular board meetings.

Area	KPI	Frequency
Marketing	Conversions (at different stages)	Quarterly
Sales	New clients	Monthly
Service	Total clients in the service	Monthly
	Client velocity (speed at which clients move through the service)	Monthly
	Completed retrofits	Quarterly
	Client satisfaction (1-10 and recommendations)	Quarterly
Financial	Invoiced income	Monthly
	Bad debt	Quarterly
Impacts	Number of measures installed	Quarterly
	CO2 savings	Quarterly
	Health impacts	Annual



MAKING IT HAPPEN

Operations/management plan

Start-up phase and Community Share issue

During the start up phase of People Powered Retrofit, core staff members will start off employed by Carbon Co-op and URBED and seconded to People Powered Retrofit.

The business planning, start up and Community Share issue phase are being led by Jonathan Atkinson and Marianne Heaslip, with input from the founding board members, the board members of Carbon Co-op and URBED, and from other People Powered Retrofit operational staff including Marion Lloyd-Jones and Lewis Sharman. Advice and assistance is coming from Nathan Brown and Mark Simmonds of Co-op Culture as well as Lorraine Power (People Support HR), Rowan Atkinson (marketing) and Patrick Morello (Third Sector Accountancy).

Over the first twelve months of operation the seconded staff will transfer across via TUPE to become directly employed by People Powered Retrofit.





Workforce strategy

As the People Powered Retrofit service is predominantly a knowledge-based service, the most important assets the organisation possesses are the skills and knowledge of its workforce. The workforce strategy is therefore key to the businesses success.

Staffing structure

The staffing structure includes a management team and delivery staff distributed throughout the three key service teams of the Retrofit Service, Training and Software services.

Within our five year projection the team starts off relatively small with ten FTE members of staff in the first year, growing steadily but sustainably to 50+ over the five year period as workload and income generation increases. Many core staff (see Section 2) are already in place and clear job descriptions are in place for new staff that need to be recruited. HR and recruitment costs are included in the business plan.

Management Team

The operation structure is split between a management team and delivery staff with the ratio of management:delivery starting at 1:3 but growing to nearly 1:10 by year five.

The management team is led by Marianne Heaslip in her role as Technical Director and Jonathan Atkinson in his role as Business Development Director and the team is complimented by Marion Lloyd-Jones in her Service Design lead role and an administrator. As the organisation grows, the management team expands to incorporate a Finance and Operations Director. Accountability from delivery will flow through the management team to the board of directors and through them ultimately to the members.

Underneath the management team are the three delivery teams: retrofit service, training and software services. Each team has an autonomous staffing structure with organisational integrity and additionality maintained by the management team facilitating frequent knowledge sharing and exchange.

Rather than build a large in-house HR and bookkeeping team, we intend to bring in specialist providers - a model that has worked well at Carbon Co-op. People Support and Third Sector Accountancy are respectively HR and bookkeeping and financial admin co-operatives that offer external support for social enterprises.

Retrofit Team

The Retrofit Team is led by a Service Management team incorporating Marion Lloyd-Jones (Service Design) and Lewis Sharman (Customer Experience Manager). This team is complimented by a Software Engineer to maintain and develop ICT systems and in later years by a dedicated Business Development Manager (a role played by Jonathan Atkinson in the early years).

Overseen by Technical Director Marianne Heaslip, a Retrofit Designer, likely an architect or architectural assistant, will provide architectural design work for the client service, providing an important source of income generation whilst Helen Grimshaw will provide Retrofit Evaluation services to assess impacts. Overtime, the architectural team will grow to provide increased capacity.

The building blocks of the retrofit service are Retrofit Assessors and Retrofit Co-ordinators who carry out the core work of service delivery. As the service grows, the number of Assessors and Co-ordinators grows in order to meet demand. We have financially modelled directly employing these roles but at present the service has a bank of freelance consultants that can provide both roles and freelancers may provide a short term way to increase capacity during the growth of the service. The way we have modelled our finances, the use of freelancers will not impact on profitability.

Training Team

The Retrofit Training service is relatively focused and relies on a Retrofit Training Manager to oversee the development and delivery of courses by freelance tutors. Should demand significantly increase, more training managers can be added to the team, though we have not modelled this scenario.

Software Services Team

Retrofit Software services is a relatively small team incorporating a Product Manager to take ownership of the development and delivery of software tools, ensuring they meet client requirements and business objectives. The software engineering team grows as demand for the services increase and a specialist implementer is used to service the need for organisational software installations – focusing on organisational wide service implementation and staff training. As the service grows sales staff are brought in to the team.

Equipment and fees

The main equipment requirements for staff are IT i.e. computers and associated software. Specialist architectural software package licenses are required to support Retrofit Design work. Retrofit Assessors and Retrofit Coordinators also require a variety of investigative tools and devices to carry out their work such as thermal imaging cameras and borescopes, and these are accounted for under assets. Office furniture and other fixed assets are also accounted for.

AWS server fees are required to host in house software tools. Significant insurance cover is required to cover the Professional Indemnity activities carried out by the service, additional insurance for public liability, employers insurance and contents is also required.

The company will not own any motor vehicles, however, we have allocated expenses for employees to attend site visits at domestic properties and encourage use of cycles and public transport where possible.

Premises

People Powered Retrofit is currently operating from the Bridge 5 Centre for Sustainability based in Ancoats on the edge of Manchester City Centre. Two office moves have been accounted for within the business plan as the company increases in size. Our ambition is to remain in central Manchester and to, where possible, remain with an ethical and environmental landlord.

TIMELINE

Month	Activity
January 2019	Start of People Powered Retrofit pilot
June 2019	People Powered Retrofit - interim R&D findings report issued
March 2021	End of People Powered Retrofit pilot; 63 fee paying clients
June 2021	People Powered Retrofit Limited incorporated as a Community Benefit Society
August 2021	Offer awarded Community Shares Standard Mark
September 2021	Community Share Launched
November 2021	Share offer closes



FINANCIAL PROJECTIONS

The People Powered Retrofit business model is built up from three separate elements:

- The sale of householder retrofit services.
- The sale of retrofit ICT services to non-domestic clients.
- The sale of retrofit training services to contractors and commissioners.

The most significant element of these is householder retrofit services, but having a diversity of income generation sources and clients adds to the robustness of the model.

Financial Summary

Householder retrofit services

The householder retrofit service is built on the basis of householders travelling, end-to-end through the five stages of the service, starting at Advice and moving through Assessment, Design, Onsite works and Evaluation/Handover.

At each stage of the service, and at times within a stage, charging points mean we generate income as clients progress. The service charges are calculated on the basis of estimates of how long a staff member will work on each stage (time estimates are based on the People Powered Retrofit pilot), staff wages, average productivity levels (based on the pilot and industry averages for the sector) and a profit margin.

Larger projects – as measured by house size/works budget – require more time to complete. For the purposes of modelling charges and creating fees we have divided project sizes into standard (£15,000), large (£40,000) and very large (£120,000). In reality, there will be a greater diversity of project sizes – within the pilot and echoed by pre-pilot market research, the average works cost was £45,000 with some projects in the £250,000 range and one or two even higher. Whilst this modelling has guided planning and pricing, we maintain the ability to offer bespoke pricing based on unusual properties or work costs outside of the three main ones modelled.

In line with our ethical charging policy, large homes and bigger homes have a greater profit margin applied, in part to encourage those with smaller budgets to commission work. Despite this, due to the size of projects, clients in larger homes still tend to pay a smaller percentage of total works in fees.

Charging structure

	Standard	Large	Very Large
Contract value	£15,000	£40,000	£120,000
PPR fee	£2,833	£5,893	£12,301
PPR fee as % of total contract value	18.9%	14.7%	10.3%

In order to model the growth of the service we have made estimates on client sales and growth over the five year course of the business plan – we believe these sales projections to be achievable and conservative based on the pilot and market research.

Sales projections

Sales	Standard	Large	Very large	Total Clients
Year 1	14	27	4	45
Year 2	26	51	8	85
Year 3	51	102	17	170
Year 4	105	210	35	350
Year 5	150	300	50	500

The estimated number of clients and the ratio between client categories are based on the pilot and market research. Deviations in actual sales can be accommodated due to our bottom up pricing methodology.

Cost of sales

As the number of clients grows so does the workforce requirements. Our business model is built to scale the number of employed staff as sales grow, in direct proportion to the number of hours and roles required in the service – to ensure we have the capacity to deliver the volume of work estimated whilst not being over staffed. Our model also builds in unit costs for the marketing cost of acquisition per client and costs for staff travelling to sites for inspections, assessments, client meetings etc.

Retrofit service team staffing

Retrofit Team	Year 1	Year 2	Year 3	Year 4	Year 5
Technical Lead			0.5	1	2
Service Design lead			0	0	0
Customer service lead	1	1	1.5	2	3
Retrofit Co-ordinator manager	1	1	1.5	2	3
Supply chain business relationship manager	0.5	0.5	1	1	1
Business development manager		0.5	1	1	1.5
Software developer	1	1	1.5	1.5	1.5
PPR Retrofit Advisor			0.5	2	4
PPR Retrofit Assessor		0.5	2	4	6
PPR Retrofit Coordinator	1	2.5	6	14	20
Retrofit Designer	0.5	1	1	2	2.5

Financial Sensitivities

Sensitivity	Detail	Mitigation
Estimated hours for each stage versus actual time	If actual jobs are taking longer than estimated in the Business Plan cost model surpluses will drop.	A staff timesheeting system will be used to review hours worked versus predicted, review of service design, management and/or charging to address differences.
Productivity	Productivity is a measure of how much time staff are spending on fee earning work. If productivity falls, surpluses fall too.	The staff timesheeting system will be used to monitor productivity and if necessary specialist support staff will be employed to ensure delivery staff focus on fee earning work.
Bad debt	Too much bad debt through clients withholding fees or being unable to pay fees.	A close relationship with client members reduces the potential for bad debt, nonetheless we have made allowances for it in the plan.
Speed of payment	As a service-based business we are reliant on payment in arrears. The speed at which payment takes place therefore has a bearing on cashflow, in particular as the organisation grows.	Our business plan models cashflow on the basis of 30 days invoice payment terms and shows a positive position throughout the 5 year period. However, we also have a Credit Control policy in place to enforce this.

Profit/loss

The Retrofit Service has the potential to grow substantially and in doing so to act as the core business centre for People Powered Retrofit. At all times income from the Retrofit Service exceeds expenditure but as the service scales and unit costs remain steady, the contribution to overall organisational profits grows.

Retrofit design software services

The software services area of People Powered Retrofit is based around two income generating products: a web-based design tool sold on an annual subscription basis and an organisation implementation of the Home Retrofit Planner service. Unlike Retrofit Services for householders which are tied to staff time and resourcing, software services have the potential to generate additional revenue with marginal or zero additional cost. Irrespective of this, we have based our projections on realistic assessments of market size and interest.

Income generation

Based on advice from software consultancy ThoughtWorks, we intend to focus on one software product at a time, as developing two concurrently risks adversely affecting development cycles. We will focus on the hosted deployment first, as this product requires most investment but offers most potential for income generation. The cloud based tool, developed actively from year 3 onwards, though generating less unit income, offers the most potential to significantly scale.

		Year 1	Year 2	Year 3	Year 4	Year 5
Home Retrofit Planner – cloud based tool						
Subscriptions	@£400			80	150	200
Income				£32,000	£60,000	£80,000
Home Retrofit Planner – hosted deployment						
New organisations	£12,000	4	7	9	12	14
Subscriptions	£6,000		4	13	25	39
Total organisations		4	11	22	37	53
Income		£48,000	£108,000	£186,000	£294,000	£402,000
Total software income		£48,000	£108,000	£218,000	£354,000	£482,000

Software Service Costs

The costs associated with these services are based mainly on staff time, in particular, software engineers are required to develop the software, add features and to service client requirements. As well as software development, staff time is required to resource Product Management and sales and for the hosted deployment, staff time to implement the software with the host organisation.

Retrofit Training Services

Potential Retrofit Training Services are many and varied, ranging from simple, one off courses run by in-house staff or consultants to longer modules with multiple sessions, input from course authors, external tutors and a training manager. Sources of income are also varied, within the current policy environment, the most likely Commissioning organisations are local authorities or further education institutions, though in some cases learners and/or sponsoring companies may pay for attendance.

The basic training services model therefore requires some simplification. We have built the model from the ground up, designing a standard training course model assuming a course made up of four ninety minutes sessions run by an external tutor with oversight from an in-house Training Manager and another, specialist one day, PAS2035 course delivered using in-house staff. Course fees are based on this expenditure, plus costs such as room hire and printing materials and a profit margin allowance - with each course surplussing around £500 per run. We've also included a simplified CPD (Continuous Professional Development) session, delivered by an external consultant with modest sales of £100 per session. Development capital is set aside to develop new courses in the first two years - commissioning external course authors to develop these.

The Training Service offer is overseen by a part time in-house Training Manager and ultimately the income generating potential of this work is linked to the capacity of this manager. However, as with the Retrofit Service, given the unit profitability of the training services, should demand exist for additional courses the Training Manager resourcing can be increased through recruitment of staff or consultants.

Financial projections

Profit & Loss

	2021	2022	2023	2024	2025
Turnover					
Retrofit sales	210,600	397,800	795,601	1,638,002	2,340,003
Training income	36,000	69,600	121,800	138,000	138,000
Software services	48,000	108,000	218,000	354,000	482,000
	294,600	575,400	1,135,401	2,130,002	2,960,003
Direct costs					
Retrofit sales	(174,289)	(280,103)	(571,705)	(1,067,852)	(1,550,699)
Training	(31,420)	(57,364)	(83,956)	(96,628)	(96,628)
Software services	(70,000)	(122,500)	(175,000)	(175,000)	(210,000)
	(275,709)	(459,967)	(830,661)	(1,339,480)	(1,857,327)
Gross Profit	18,892	115,434	304,740	790,522	1,102,676
Overheads					
Staffing	(100,800)	(135,800)	(201,600)	(201,600)	(236,600)
HR support	(9,983)	(15,465)	(26,930)	(41,002)	(56,646)
Training budget	(7,487)	(11,599)	(20,197)	(30,752)	(42,485)
Product development	(5,000)	(5,000)	0	0	0
Rent	(12,000)	(24,000)	(24,600)	(50,000)	(51,250)
Server fees	(3,000)	(5,000)	(5,000)	(10,000)	(10,000)
Accounting and audit	(5,500)	(5,638)	(5,778)	(10,000)	(10,250)
Office expense	(5,000)	(5,125)	(5,253)	(5,384)	(5,519)
Telephone and subscriptions	(10,000)	(16,000)	(25,600)	(40,960)	(65,536)
Architect software subscriptions	(8,000)	(8,200)	(8,405)	(8,615)	(8,831)
Travel	(3,962)	(4,892)	(7,598)	(11,443)	(14,649)
Marketing	(4,500)	(8,713)	(17,861)	(37,691)	(55,191)
Insurance	(12,000)	(14,640)	(17,861)	(21,790)	(26,584)
Share offer costs	(18,750)				
	(205,982)	(260,070)	(366,683)	(469,238)	(583,541)
EBITDA	(187,090)	(144,636)	(61,943)	321,284	519,135
Revenue Grants	0	0	0	0	0
Capital Grants	0	0	0	0	0
Interest on Member Shares	0	0	0	(24,750)	(22,275)
Other interest					
Depreciation	(4,828)	(6,671)	(8,488)	(15,341)	(20,845)
Taxation	0	0	0	0	(96,931)
Net Profit	(191,918)	(151,307)	(70,431)	281,193	379,084

Gross profit (sales minus cost of sales) remains positive throughout the five year period of the business plan. We have modelled the payment of Corporation Tax but if successful with our application for registration with HMRC as an exempt charity this taxation will not apply.

Operating performance (as measured by EBITDA – Earnings Before Interest, Taxes, Depreciation, and Amortization) is negative for the first three years, becoming positive in year 3 of operation – and aggregated profits exceed aggregate losses by year 5 of the plan.

In effect, the loss in the early years and the surplus in the later years is due to sales not being able to bear the core costs of organisation whilst we establish ourselves in the first two to three years of operation. Once scale is achieved in year four onwards (and income from software services is contributing) core costs are more than covered.

Long term growth plans are not focussed on People Powered Retrofit growing significantly beyond the Greater Manchester travel to work area. This is in part due to an ambition to maintain the link between members and the organisation – a more challenging prospect as the organisation grows in geographical scale – but also because close links to geographically based stakeholders are necessary to deliver effective social marketing and implementation. Instead, our ambition is to grow with social franchising elements of the service into other areas of the UK. This has already begun with the organisational implementation of Home Retrofit Planner and we will seek to build on this platform.

5 Year Cashflow projection

	2021	2022	2023	2024	2025
Net Profit	(191,918)	(151,307)	(70,431)	281,193	379,084
Add back in					
CT	0	0	0	0	96,931
Revenue Grants unspent	0	0	0	0	0
Depreciation	4,828	6,671	8,488	15,341	20,845
Interest Accrued	0	0	0	24,750	22,275
Change in accounts payable inc VAT	12,132	12,760	26,874	46,030	39,143
Less					
Change in accounts receivable	(24,550)	(23,400)	(46,667)	(82,883)	(69,167)
CT paid (prev year)	0	0	0	0	0
Capital grants	0	0	0	0	0
Interest paid (prev year)	0	0	0	0	(24,750)
Total Operating Cash Flows	(199,508)	(155,277)	(81,736)	284,431	464,362
Grant cashflows					
Capital grants					
Total Grant cash flows					
Investment Cash Flows					
Purchase of Fixed Assets	(15,983)	(11,482)	(11,465)	(30,056)	(31,109)
Sale of Fixed Assets	0	0	0	0	0
Total Investment Cash Flows	(15,983)	(11,482)	(11,465)	(30,056)	(31,109)
Financing Cash Flows					
Community Shares Invested	550,000	0	0	0	0
Community Shares Withdrawn	0	0	0	(55,000)	(49,500)
Total Financing Cash Flows	550,000	0	0	(55,000)	(49,500)
Total Cash Flows	334,509	(166,759)	(93,201)	199,375	383,753
Opening Cash Balance	0	334,509	167,750	74,549	273,924
Closing Cash Balance	334,509	167,750	74,549	273,924	657,677

A positive cash balance is maintained throughout the Business Planning period, with year 3 the tightest point in the period. The plan allows for 10% of withdrawals of member share investment taking place from year 4 onwards.

Balance sheet

	2021	2022	2023	2024	2025
Fixed assets					
	£11,155	£15,966	£18,944	£33,658	£43,922
Current Assets					
Debtors	24,550	47,950	94,617	177,500	246,667
Cash at bank and in hand	334,509	167,750	74,549	273,924	657,677
	359,059	215,700	169,165	451,424	904,344
Liabilities – falling due within 1 year					
Creditors	0	0	0	0	0
Interest	0	0	0	(24,750)	(22,275)
Corporation Tax & VAT	(12,132)	(24,892)	(51,765)	(97,795)	(233,870)
Grants	0	0	0	0	0
	(12,132)	(24,892)	(51,765)	(122,545)	(256,145)
Net current assets (liabilities)	346,927	190,808	117,400	328,879	648,199
Total assets less current liabilities	358,082	206,775	136,344	362,537	692,121
Long term liabilities – due after 1 year					
Unspent grants	0	0	0	0	0
	0	0	0	0	0
Net assets	358,082	206,775	136,344	362,537	692,121
Capital and reserves					
Member shares	550,000	550,000	550,000	495,000	445,500
Profit & loss account	(191,918)	(343,225)	(413,656)	(132,463)	246,621
	358,082	206,775	136,344	362,537	692,121

Summary for minimum target scenario

More detail on these scenarios can be provided on request.

P&L

	2021	2022	2023	2024	2025
Turnover	300,000	517,800	642,600	784,801	939,601
Direct Costs	(261,011)	(374,189)	(416,519)	(435,987)	(458,029)
GP	38,989	143,611	226,081	348,814	481,572
Overheads	(149,192)	(166,439)	(176,781)	(197,609)	(201,344)
EBITDA	(110,203)	(22,828)	49,300	151,205	280,228
Net Profit	(113,456)	(27,083)	36,096	127,571	199,292

Balance Sheet

	2021	2022	2023	2024	2025
Fixed assets	£10,006	£9,635	£7,252	£11,099	£16,082
Debtors	25,000	43,150	53,550	65,400	78,300
Cash	62,985	28,783	72,976	180,280	406,237
Current liabilities	(12,447)	(23,107)	(39,221)	(54,462)	(117,010)
Net current assets	75,538	48,826	87,305	191,218	367,528
Long term liabilities	0	0	0	0	0
Net assets	85,544	58,461	94,557	202,318	383,610
Member shares	200,000	200,000	200,000	180,000	162,000
Profit & Loss	(114,456)	(141,539)	(105,443)	22,318	221,610

Cashflow

	2021	2022	2023	2024	2025
Operating Cashflows	(122,757)	(30,317)	45,014	136,385	256,743
Investment Cashflows	(14,259)	(3,885)	(821)	(9,080)	(12,786)
Financing Cashflows	200,000	0	0	(20,000)	(18,000)
Closing Cashflow	62,985	28,783	72,976	180,280	406,237

Summary for maximum target scenario

More detail on these scenarios can be provided on request.

P&L

	2021	2022	2023	2024	2025
Turnover	294,600	595,400	1,135,401	2,130,002	2,960,003
Direct Costs	(328,209)	(529,967)	(900,661)	(1,409,480)	(1,909,827)
GP	(33,609)	65,433	234,740	720,522	1,050,176
Overheads	(211,857)	(263,570)	(370,183)	(472,738)	(586,166)
EBITDA	(245,466)	(198,137)	(135,443)	247,784	464,010
Net Profit	(250,460)	(205,418)	(144,338)	198,255	398,960

Balance Sheet

	2021	2022	2023	2024	2025
Fixed assets	£11,489	£17,189	£19,759	£34,535	£45,507
Debtors	24,550	49,617	94,617	177,500	246,667
Cash	475,634	253,208	87,174	192,549	492,677
Current liabilities	(12,132)	(25,892)	(51,765)	(131,545)	(180,352)
Net current assets	488,052	276,933	130,026	238,504	558,992
Long term liabilities	0	0	0	0	0
Net assets	499,540	294,122	149,784	273,039	604,498
Member shares	750,000	750,000	750,000	675,000	607,500
Profit & Loss	(250,460)	(455,878)	(600,216)	(401,961)	(3,002)

Cashflow

	2021	2022	2023	2024	2025
Operating Cashflows	(257,883)	(209,443)	(154,570)	210,931	400,237
Investment Cashflows	(16,483)	(12,982)	(11,465)	(30,556)	(32,609)
Financing Cashflows	750,000	0	0	(75,000)	(67,500)
Closing Cashflow	475,634	253,209	87,174	192,549	492,677

Finance and funding

Item	Cost	Sources	Amount
Pre-development registration and business planning	£2,500	Carbon Co-op Grant (linked to People Powered Retrofit pilot)	£2,500
Share Offer marketing costs	£5,500	Carbon Co-op Grant (linked to People Powered Retrofit pilot)	£5,500
Market acquisition costs	£4,500	Community Share Offer	£4,500
Investment in income-generating	£101,420	Community Share Offer	£101,420
Fixed assets	£15,983	Community Share Offer	£15,983
Working capital	£409,347	Community Share Offer	£409,347
Share offer hosting (Ethex)	£18,750	Community Share Offer	£18,750
Total	£558,000	Total	£558,000

If share offer only reaches the minimum amount growth of the business will take place more slowly than envisaged under the optimum scenario and the software development element of the business will be scaled back to focus solely on the organisational implementation product.

Achieving the maximum amount will mean we can dedicate greater resources to software development, employing more Software Engineers.

People Powered Retrofit benefited from grant funds advanced to Carbon Co-op in order to carry out pre-trading development of People Powered Retrofit Limited. These funds were part of grant support from BEIS to develop a market for retrofit in the Greater Manchester area.

Impact on differing levels of investment on the performance of People Powered Retrofit and impact on member shares

Profitability

Compared to the optimum scenario, with minimum investment, People Powered Retrofit declares an annual profit sooner (2023 as opposed to 2024) but the subsequent levels of profit and social impact generated are lower. With maximum investment, People Powered Retrofit declares annual profit in 2024 and annual profitability exceeds that of the optimum in 2025

A cumulative profit is reached in 2025 under the optimum scenario, in 2024 with minimum investment and would be expected in 2026 for the maximum investment. However, social impact generated from the maximum investment is projected to be greater over the longer term.

Ability to pay interest

People Powered Retrofit has sufficient cashflow to pay interest in all 3 scenarios.

Good practice states that interest should only be paid if profit (EBITDA) is declared (and current reinvestment needs of the society have been met). For the minimum scenario this happens in 2023. For the optimum and maximum investment, this happens in 2024.

Liquidity to enable withdrawal of share capital.

All three scenarios provide sufficient liquidity to allow withdrawals of share capital at a rate of 10% per annum from 2024. In all three scenarios, withdrawal would be funded from that year's profits.

Overcapitalisation, excess cashflow

There is a risk that the Society could be overcapitalised, showing a lowest cash balance

of £29,783 in 2022 for the minimum scenario, £49,799 in 2023 for the optimum scenario, and £53,424 in 2023 for the maximum scenario. However, it is the view of the Board that such liquidity is required as a contingency to allow for later than anticipated settlement of invoices and to respond to unforeseen eventuality such as slow market response or shocks to delivery caused by events such as Covid 19 outbreaks.

Community Share offer details

- Minimum: £200,000
- Optimum: £550,000
- Maximum: £750,000

Our target interest rate payable is 5%, payable from year 2 of the Business Plan. We have accounted for withdrawals at 10% from year 4 of the Business Plan.



Tax relief

People Powered Retrofit has successfully applied for Advance Assurance for Social Investment Tax Relief (SITR) from HMRC and received confirmation of this in a letter dated 17th August 2021. SITR is available to investors, to increase take up of the community share offer by individuals.

Social Investment Tax Relief

Social Investment Tax Relief (SITR) offers 30% tax relief to individual investors. 4 months after carrying out our qualifying trade (which we will start the day after the share offer closes) we will provide HMRC with a compliance statement. Provided they agree we are eligible (see below) then they will provide us with SITR3 compliance certificates for each investor, which we will forward to them.

People Powered Retrofit can raise up to £1.5m using SITR over the lifetime of the organisation. Our share offer falls below this limit. People Powered Retrofit has received no state aid to date.

People Powered Retrofit eligibility for SITR

To be eligible, the Society must meet the following conditions:

Condition	Detail	People Powered Retrofit position
Legal structure	The organisation seeking investment must be one of the following: Registered charity, Community Interest Company (CIC), Community Benefit Society or Charitable Community Benefit Society, An accredited social impact contractor.	We comply with this condition as we are a Charitable Community Benefit Society.
Size of organisation	The organisation seeking investment must have less than 250 employees AND less than £15m in assets.	We comply with this condition as we are a newly formed Society and during the 5 year life of this business plan we will have less than 60 employees and less than £1m in assets. The long term growth plans for People Powered Retrofit involve social franchising so it is likely the Society will always fall below that threshold.
Ownership and subsidiaries	Only 'parent' organisations can use SITR to raise investment.	We comply with this condition as we are not a subsidiary. We are an independent Society owned and democratically controlled by its members on the basis of one member one vote.
Carrying out or preparing to carry out a qualifying trade		We will start trading within 2 years of the investment.
Trading activity	No more than 20% of the organisation's trade can come from Energy generation, Leasing or letting assets on hire, Receipt of royalties or license fees, Property development, Managing or operating nursing homes or residential care homes, Money-lending or other financial activities, Being a landlord.	The only trade that falls within these categories is license fees. Some of the software income is derived from licensing. This source remains below 4% turnover during our first 5 years and is not anticipated to increase above this level longer term. We do not develop property. We provide a planning and design consultancy service to householders. More detail provided below.
Age of organisation	The organisation must have been founded less than 7 years ago.	We comply with this condition. People Powered Retrofit Limited was formed and registered in 2021.

For 3 years after the investment is made, The Society cannot:

- be controlled by another company
- be quoted on a recognised stock exchange
- be in a partnership
- control another company that is not a qualifying subsidiary

As a Community Benefit Society, we can confirm that PPR will only be controlled by its Members, can not be quoted on a stock exchange as its shares cannot be traded, is not planning to enter a partnership, and has no plans to control another company.

The investment is not guaranteed and as investors you are not protected from risk.

We will not allow withdrawal of shares during the 3 years after the investment is made. We cannot guarantee withdrawal of shares at the end of this 3 year period. Whilst we have set out in our business plan aspirations for share withdrawal, any applications for withdrawal will be dealt with in accordance with our Rules and will be subject to sufficient liquidity being available to facilitate withdrawal. Decisions on withdrawal will be at the discretion of Directors.

Trading activities

- Energy generation - we do not trade in energy generation
- Leasing or letting assets on hire - we do not hire, let or lease assets
- Receipt of royalties or license fees. The Retrofit Software Service will be developed as two distinct new products: a web-based tool and an organisational implementation service. Our team of software engineers will develop the new tools which we will then market. Neither of these tools are based on a licence arrangement. The web-based tool is a service that users pay a fee to access. The organisational implementation service provides a stand alone installation. The purchaser can commission additional bespoke developments or support through an optional service level agreement. 50% of those subscription fees is derived from license fees. License income as proportion of turnover is outlined in the table below.

	2021	2022	2023	2024	2025
License income		£6,000	£33,000	£69,000	£111,000
Proportion of turnover	0.00%	1.05%	2.92%	3.26%	3.77%

- Property development - Whilst our services may be used by home owners and architects to improve properties, we will not be involved in developing properties.
- Managing or operating nursing homes or residential care homes - we do not manage or operate nursing or residential care homes
- Money-lending or other financial activities - we do not provide access to finance or financial services
- Being a landlord - we will not be a landlord

Investor eligibility for SITR

To qualify for Social Investment Tax Relief, investors must be a UK income tax payer with tax due to pay equal or greater than the amount of relief they are seeking.

SITR is only available to individuals. It cannot be claimed by corporate bodies, firms, partnerships, associations etc.

Individuals cannot claim SITR if they invest as part of a tax avoidance scheme, or if they and their associates are connected with the company. This applies where they or their associates:

- Are or become an employee of the social enterprise or charity
- Are a paid director of the social enterprise. Unpaid directors [can claim tax relief](#).
- Hold a total of more than 30% of the society's:
 - shares
 - rights to assets if the company is wound-up
 - voting rights
 - loan capital

Associates are:

- parents, grandparents and great-grandparents
- children, grandchildren and great-grandchildren
- spouses and civil partners
- business partners
- trustees of settlements where you are the settlor or beneficiary

These conditions apply for the 12 month period before the investment.

More information about SITR for investors can be found at the [GETSITR](#) and [gov.uk](#) websites.

ACKNOWLEDGEMENTS

We'd like to say a big thank you to our advisors Nathan and Mark from Co-op Culture. Also thanks to the Carbon Co-op and URBED boards and staff, BEIS and Friends Provident Foundation and all the collaborators, clients and members who have been involved in getting us this far. We'd also like to thank our fellow BEIS Retrofit Supply Chain pilots for their hard work, collaboration and support over the past three years, including Centre for Sustainable Energy and Green Register (FutureProof), Retrofit Works, Parity Projects, and Low Carbon Hub (Cosy Homes Oxford) and to the support organisations and networks we are part of including the AECB, Co-operatives UK, Community Energy England and RESCoop EU. All photos by Allan Melia <https://allanmelia.com>



**PEOPLE
POWERED
RETROFIT**



Appendices

The People Powered Retrofit pilot

Carbon Co-op and URBED established People Powered Retrofit with the assistance of £850,000 of grant funding support from BEIS between 2019 and 2021.

The two and a half year BEIS programme sought to pilot the development of retrofit markets in six areas of the UK. Full details of the programme as well as summaries of the five other pilots in addition to People Powered Retrofit can be found here:

<https://www.gov.uk/government/publications/energy-efficiency-improvement-rates-local-supply-chain-demonstration-projects/local-supply-chain-demonstration-projects-summaries>

Much of the learning from the first Research and Development phase of the funding programme can be found in the People Powered Retrofit report

<https://cc-site-media.s3.amazonaws.com/uploads/2020/07/3.-PeoplePoweredRetrofit-Report.pdf>

A BEIS evaluation report also covers early stages of the programme, though the period of time the report covers is before the pilot launch of the People Powered Retrofit service and as a result client numbers and completed project numbers are low.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/958862/supply-chain-demonstrator-project-phase-2-evaluation.pdf

Key outcomes from the People Powered Retrofit pilot include:

- Development of **mapping and persona profiling** methodologies to help identify and locate and recruit retrofit clients.
- Extensive **Service Design** activity to analyse successful retrofit service approaches from around the UK and, with input from householders, practitioners and contractors, inform the development of the People Powered Retrofit service.
- **Supply Chain development** to build the supply chain necessary to service householder demand.
- The development of a holistic and replicable **Supply Chain Training Programme** reflecting best practice evidence on the use of on site training and education.
- The demonstration of a cost effective approach to **Community-Based Social Marketing** at a scale necessary to drive sufficient client conversions for a sustainable service.
- A **real world demonstration** of the fee earning service with clients including the production of valuable feedback to inform business planning and iterative and ongoing service design improvements.

Further reading

Track record

People Powered Retrofit R&D report

A Community led model for owner occupier retrofit
Project Report (June 2019)

[Download](#)

Powering Down Together report (2017)

Kate De Selincourt on behalf of Carbon Co-op

Case study report on Carbon Co-op's Community Green Deal programme.

Summary:

<https://cc-site-media.s3.amazonaws.com/uploads/2018/01/Carbon-Co-op-Case-Study-Final.pdf>

Full report:

<https://cc-site-media.s3.amazonaws.com/uploads/2018/01/20170622-Powering-Down-Together-case-study-full-report.pdf>

Resilient Domestic Retrofit, Producing Real World Performance

CIBSE ASHRAE Technical Symposium, Loughborough, UK 5-6 April 2017

Analysing the real world performance of My Home Energy Planner (now Home Retrofit Planner) with analysis of performance gaps issues.

Marianne Heaslip, Dominic McCann

<https://cc-site-media.s3.amazonaws.com/uploads/2019/02/URBED-CIBSE-Resilient-Domestic-Retrofit-Producing-Real-World-Performance.pdf>

Fieldwork studios

People Powered Retrofit's marketing and design partners.

<https://madebyfieldwork.com/projects/people-powered-retrofit>

The Retrofit factfile

A short summary of facts and publications relevant to domestic retrofit.

Helen Grimshaw, URBED

<https://cc-site-media.s3.amazonaws.com/uploads/2018/03/2016-URBED-Tyndall-The-Retrofit-factfile-facts-and-publications.pdf>

Evaluation of the supply chain demonstrator project

BEIS Pilots Year 2 Evaluation report (2021)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/958862/supply-chain-demonstrator-project-phase-2-evaluation.pdf

Policy

UK housing: Fit for the future?, Committee on Climate Change, February 2019

<https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/>

Energising Advice

A scoping study on domestic consumer energy advice and information services in the UK.

Dr Catrin Maby OBE for MCS Charitable Foundation, December 2020

<https://static1.squarespace.com/static/5aafe1e7620b85e2e8c9ba88/t/5fcf670110aae77571707edb/1607427851935/MCS+Charitable+Foundation+-+Energising+Advice+Report.pdf>

<https://static1.squarespace.com/static/5aafe1e7620b85e2e8c9ba88/t/5fcf670110aae77571707edb/1607427851935/MCS+Charitable+Foundation+-+Energising+Advice+Report.pdf>

Regeneration and Retrofit

UK Green Building Council, Task Group Report (2017)

https://www.ukgbc.org/wp-content/uploads/2017/09/171027-Regen-Retrofit-Report_Final.pdf

Decarbonising Greater Manchester's Existing Buildings (2020)

A report to Greater Manchester Combined Authority.

<https://democracy.greatermanchester-ca.gov.uk/documents/s2237/Decarbonising%20Buildings%20Report%20Annex%202.pdf>

Contributions from Carbon Co-op and URBED

Market research

Theme	Challenge	Opportunity	Evidence
Trust	Low levels of consumer trust in providers and contractors	Role for impartial, independent advice and appropriate QA system	<p>“The advice you get is contradictory and conflicting.”</p> <p>80% of people joined Carbon Co-op’s Community Green Deal project due to the organisation being seen as a trusted intermediary.</p> <p>Consumer engagement is improved where information and initial contact comes from a trusted source, perceived as likely to act in their best interests and to provide impartial advice.</p>
Supply	Not enough retrofit contractors in the GM area.	Untapped demand can be released if contractors are appropriately trained.	<p>“There are currently not enough people in the retrofit market, you can only find one or two people who are capable.”, it is “very hard to find an architect with retrofit experience.”]</p>
Complexity, time and risk	Retrofit, in particular whole house, is complex, householders don’t have the time or the knowledge	A simplified consumer offer is likely to lead to increased take up of retrofit.	<p>“It takes a lot of time and effort.”</p> <p>“It has been a long hard process.”</p> <p>“Not sure how you would do this with a full time job!”</p> <p>“Too many questions leads to paralysis.”</p> <p>“If you get it wrong the consequences can be serious.”</p>
Householder involvement	Householders don’t feel involved in the process and are likely to not sign up or drop out	Offering a householder-led process that puts clients at the heart of the process likely to increase take up and positive outcomes.	<p>When inhabitants provide additional information about their own house and the way they live, the calculated energy use is more accurate.</p> <p>“Needs to be a clear process of empowerment for householders. So people are clear on decisions.” and “[During Carbon Co-op’s project] I felt supported to make a decision.”.</p>
Lack of profile	Retrofit is seen as abnormal and uncommon, for a few hippies or ‘Grand Design-ers’	Using social marketing and social diffusion to normalise and encourage take up on a local scale.	<p>People are more likely to invest in energy efficiency measures if they are able to see them in-situ, and they can talk to either an impartial advisor or a householder who has already installed them.</p> <p>“I needed moral support from people who have done this before themselves.”.</p>

Owner occupiers	Past schemes have been local authority driven and delivered by housing association contractors	An owner occupier focussed service is likely to have better take up and higher satisfaction.	Local authority interviewee: “the general public are difficult to deal with, swapping and changing their mind, better to deal with a social landlord.” Householder felt bullied and intimidated. Consumers expect a service that allows them to customise the end product to their needs and tastes.
Cost	Evidence suggests cost may not be a major challenge for owner occupiers.	Starting with able-to-pay owner occupiers kick starts local market activity.	Cost is not the only factor in whole house retrofit decision making (Parkhill et al., 2013). Performance, comfort, status, convenience etc have been shown to be important to uptake. In Carbon Co-op surveys comfort and environment out rank cost as a priority. Average Carbon Co-op householder budget is £40,000.

Quotes taken from: Carbon Co-op members focus groups, Carbon Co-op 2017, and CSE and NEF (2017) Green Deal Communities: Learning and recommendations. National Energy Foundation and the Centre for Sustainable Energy.

People Powered Retrofit – Marketing & PR proposal

Author: Rowan Atkins

Advisor: Rachel Mountain, head of marketing & communications at Ethex.

Background

People Powered Retrofit is currently an unincorporated organisation, a project partnership agreement between URBED and Carbon Co-op. Over the past two years, People Powered Retrofit has demonstrated it can operate sustainably as a domestic retrofit business and, as a result, it is being set up as a community benefit society. Funds for this new organisation are being raised through a community share offer, targeting established social investors, as opposed to individuals.

Approach

The aim would be to:

- Illustrate the energy efficiency context around retrofit
- Bring the People Powered Retrofit story to life: show the impact it is having
- Speak to hearts and minds, strip back the message
- Build trust and confidence amongst potential investors. They will want to 'kick the tyres' and see a track record, making sure that it all stacks up
- Show investors how their money will have a big impact

Target audience: personas

As we know, Ethex targets retail investors – ordinary, private individuals who want to make ethical investments.

They often fall into three personas:

- 'Well informed' about investments, environmental and societal issues, richest people in society
- 'Progressives' who understand green issues, but not as financially savvy as the 'well informed'
- 'Unassured' who follow green issues but don't see themselves as big investors, don't have the knowledge

It's likely that a third of investors will come from Ethex activity, another third from People Powered Retrofit activity and the final third from joint marketing activity.

Tactics

- Social media

PR

- Trade media
- National media (personal finance sections)
- Regional media (print, TV, radio)
- Video content

Job Descriptions

Contracts and Supply Chain Officer (People Powered Retrofit)

About the job

Within People Powered Retrofit our work includes offering clear, independent advice and support to help clients plan, procure and deliver their retrofit project to a high standard.

Domestic owner occupier retrofit is still a niche within the construction sector, with high demand for a small pool of skilled and experienced people. Our network consists of builders, specialist contractors, designers, surveyors and other consultants who possess, or want to learn, skills to support retrofit work.

The role of the 'Contracts and Supply Chain Officer' is to manage and expand People Powered Retrofit's contractor network, as well as identifying suitable contractors to work for our clients.

We're looking for someone with a construction industry background who enjoys networking and is up for getting involved in a new and evolving service. Experience working with smaller scale contractors and consultants in the context of domestic projects in particular would be desirable.

Key responsibilities

- Ongoing management of People Powered Retrofit's contractor network
- First point of contact for People Powered Retrofit's contractor network
- Making or dealing with enquiries from new contractors
- Growing the supply chain network in order to meet predefined targets
- Assessing suitability and onboarding contractors using our assessment framework
- Working closely with the Retrofit Advisors and Retrofit Surveyors supporting the delivery of retrofits
- Tracking upcoming demand for retrofit services and contractors from our domestic client base
- Running light touch expression of interest processes for design, survey and construction work
- Networking with contractors and spreading the word about the network including at events, facilitating networking between members of the network
- Working with Carbon Co-op's Training Manager to help members access training

Person specification

This section sets out the qualifications and skills and experience we're looking for from candidates.

Qualification requirements

Desirable

- A qualification in a construction-related discipline.

Useful

- AECB CarbonLite Retrofit or Level 5 Retrofit Coordinator Qualification
- Qualification in sustainable and low-energy building.

Skills and experience requirements

Essential

- Experience of working within the construction industry.
- Experience of assessing the suitability of contractors working within a construction project - whether by criteria based vetting, tender process or other methods.
- Able to demonstrate clarity in the use of written communications i.e. email, letters, texts.
- Experience of stakeholder management of contractors.
- Excellent all round IT skills.
- Good at facilitating professional networking activities.

Desirable

- Knowledge of retrofit improvement techniques and measures.

Useful

- Experience of using CRM systems or equivalent.
- Experience of assessing and supporting professional skills development
- Experience of delivering marketing and promotional activities
- Experience of facilitating knowledge and peer learning exchange e.g. via forums, social media, workshops, events etc.

Training manager (People Powered Retrofit)

About the job

Across the UK, the ability to deliver domestic retrofit at scale is constrained by supply chain skills gaps. The development of new contractor and consultant training has as a result been a key feature of the People Powered Retrofit service to date. Our provision has included the development of new, inhouse training including structured courses, CPD sessions, on site Toolbox Talks, specialist PAS2035-related training and business networking activity.

We have worked with learners including already established retrofit specialists, construction sector practitioners and people completely new to construction - and we are committed to helping people traditionally marginalised from construction on the basis of gender or race, to enter the industry.

Opportunities are now emerging to develop new retrofit supply chain training, including commissions from local authorities and housing associations. We are advising the Greater Manchester Combined Authority on supply chain training and sit on Mayor Andy Burnham's Retrofit Taskforce.

Our existing courses have been developed and delivered via a mixture of inhouse staff and external industry consultants. We are recruiting a Training Manager to develop and grow our offer. You will be part of a multi-disciplinary team including retrofit specialists, technical authors and experienced course tutors.

Job Description

Role areas

The role covers the following areas:

- Coordinating course delivery and data collection.
- Developing new courses and programmes in collaboration with technical authors.
- Overseeing the strategic development of the retrofit training service.

Building and managing key relationships and networks.

- Working with partners to develop training and support the growth of People Powered Retrofit.
- Attending partnership and strategic meetings to shape and influence policy and key networks.
- Identifying and developing opportunities for the training service, including funding.
- Coordinating course delivery

Programming course delivery

- Liaising with and evaluating course tutors
- Working with marketing and comms colleagues to promote courses
- Collecting data to evidence learning and social impacts

Developing new courses and programmes

- Working with colleagues and strategic partners to assess the potential for new service provision.
- Commissioning authors and overseeing the development of courses with structured training outcomes.

Overseeing strategic development of the service

- Building strategic relationships with partners, stakeholders and commissioners.
- Assessing new opportunities and gaps in provision.
- Working with team members to secure new funding and commissions.

Programme project management

- Budget oversight and spend control.
- Resource management.
- Time/resource planning and coordination.

Person Specification

Qualifications

- Level 3 or above in Education and Training (or equivalent).
- Good interpersonal and communication skills.
- Good written and numerical skills including ability to use spreadsheets.
- Ability to self manage and work independently whilst being part of a wider team

Skills and experience

Essential

- Experience of working as part of a learning and skills team
- Experience of developing new courses and programmes
- Experience of building new relationships and partnerships with stakeholders
- Experience of data collection and management
- Experience of marketing courses.

Desirable

- Experience of working within low carbon or construction sectors
- Experience of project management

Retrofit Coordinator Job Description

Qualifications

Essential

- Level 5 Diploma in Domestic Retrofit Coordination (or be able to demonstrate equivalent work experience).

Desirable

- AECB CarbonLite Retrofit Course
- Carry Construction Skills Certification Scheme Health and Safety Card for Professionals or Trades

Skills and experience

Essential

- Lived experience of carrying out retrofit works in a domestic setting and experience of working with domestic refurbishment clients.
- Construction industry experience such as working as a Contractor, Surveyor, Site Manager/Agent or Clerk of Works etc.
- A deep understanding of the principles of Building Physics as relating to the fabric of existing buildings and the potential consequences of retrofit energy efficiency measures
- A good understanding of a range of building services systems – particularly heating and ventilation systems
- Experience of on-site monitoring tools and their appropriate use, eg one or all of:
 - Thermal imaging
 - Air Pressure tests
 - Moisture meters
 - Flow and pressure meters for ventilation systems
- Clarity in the use of written communications ie email, letters, texts.
- Effective use of oral communication, in person and remotely by phone.
- Understanding of how the construction industry is structured and the different roles and elements within a building project.
- Knowledge of project risk management in construction in relation to control of time, quality and cost.
- Knowledge of PAS2035.

Desirable

- Experience of delivering training and/or carrying out on site knowledge transfer.
- Experience of building energy modelling – SAP, PHPP or similar.
- Experience and understanding of commissioning in mechanical and electrical systems (ventilation and heat)
- Excellent knowledge of Greater Manchester Retrofit supply chain networks
- Retrofit Assessor qualifications.

N.B. You will not be expected to act as a Principal Designer, Principal Contractor, Designer or Contractor under CDM. However, you should show good awareness of Health and Safety on site and be willing and able to raise concerns where appropriate. You will also be expected to inform the client of their duties – standard materials will be provided by Carbon Coop to facilitate this.

Person specification

Essential

- You must live within the ‘travel to work’ area for Greater Manchester where the majority of our clients are based.
- Ability to talk confidently to other project stakeholders eg householders, contractors, planners, architects, engineers, building control officers etc
- Able to work with and for householders, enabling them to achieve their objectives and project brief
- Sensitive communication skills including conflict management and resolution
- An excellent problem solver able to think around issues and devise simple solutions
- Highly organised
- Ability to manage time and financial budgets
- Ability to deliver clear, consistent and regular communications without being prompted
- Understanding of when to seek clarification from other colleagues or experts.
- Taking a considered and proportionate approach to risk.
- Able to work independently
- Comfortable taking part in knowledge exchange and group learning exercises
- Can critically reflect on projects and participate openly and honestly in project debriefs and take on board constructive criticism from colleagues.

Tasks

In broad terms, the role of a Retrofit Co-ordinator is defined within PAS2035. The role as it relates to People Powered Retrofit covers three main areas: Advice and Co-ordination, Procurement advice and Quality Assurance.

1: Advice and co-ordination services

Aim of these services:

- Set client expectations as to what can be achieved (working with our Retrofit Advisor)
- Assist client decision-making
- Ensure clients take an appropriate direction through their Retrofit Project in terms of scale, costs, other priorities etc

What We Will Do

- Signpost clients to relevant information e.g. factsheets
- Highlight case studies and sources of advice
- Outline options for client's Retrofit Project in terms of service level (whole house retrofit, single measures) and delivery pathway (Traditional, Design & Build, DIY etc)
- Outline People Powered Retrofit services available and optional additional services to be carried out by specialist consultants such as a heat camera survey, air pressure test, condensation risk etc.
- Assist clients in refining their Retrofit Project brief
- Help clients to identify additional specialist services/advice required
- Highlight statutory approvals that clients may require
- Provide clients with feedback on the Retrofit Project progress to date i.e. time/costs spent
- Facilitate discussions between client and contractors and designers to agree scope/ measures/ specification [limited number of meetings]

What We Will Not Do

- Give informal and/or general technical opinions on work or buildings not seen
- Provide specialist advice e.g. on party walls, planning, rights to light or legal matters relating to property rights or title
- Prepare and make submissions for: Planning; Building Control; Party Wall; Rights to Light/legal issues

2. Procurement advice services

Aim of these services:

- Assist clients in procuring their Retrofit Project.
- Ensure clients secure a suitably experienced contractor for their Retrofit Project.
- Encourage the development of a quality retrofit supply chain in Greater Manchester.

What We Will Do

- Provide suggestions for items to be included in prelims (a document to be provided to the contractor).
- Ensure clients are aware of any pre-existing relationships with contractors.

- Provide quality assurance checklists and information on process for inclusion in the works contract (from a template developed by People Powered Retrofit).
- Provide contact details to clients for potential contractors and broker access to local contractor networks.
- Offer market intelligence on expected prices, competencies, supply chain networks etc.
- Review tender package for clarity and usefulness and provide appropriate client feedback.
- Provide guidance on a range of suitable standard form contracts.
- Provide a People Powered Retrofit quote template to be sent to potential contractors.
- Provide a suggested tender review checklist/weighting template.
- Review tender returns – providing feedback on quality and cost.

· Advise clients on contractor training needs and plan.

What We Will Not Do

- Enter into a contract with any contractor, builder, supplier, installer or trades.
- Decide which contractor is most suitable for clients.
- Issue instructions to the contractor.
- Be liable for additional contractor or client payments at a later stage.
- Facilitate collusion of any sort.

Clients will

- Make contact with contractors and be point of contact to answer any of their questions.
- Make final decision on chosen contractor and appoint them directly.
- Provide a chosen specification and construction information for the works.

3. Quality assurance services

The aim of these services is to provide a framework to monitor and assess the quality of work carried out under a contract between the client and their contractor.

We Will

- Provide a People Powered Retrofit template quality assurance checklist relevant to the client's Retrofit Project confirming what needs to be checked and recorded.
- The programme can provide agreed training/toolbox talks on specific issues e.g. air tightness.

- Carry out an agreed number of site visits at appropriate points (will be different for different works) and provide written notes and photos from these to the client in a timely manner i.e. within 48 hours.
- Facilitating email or round table (maximum 3) discussions between the client and their contractor and designers to resolve obstacles/issues.
- Provide guidance on commissioning.

What We Will Not Do

- Make good any defects in the works.
- Issue instructions (clients should appoint a contract administrator to do this or carry out this role themselves).

What Clients Will Do

- Include the requirement for quality assurance photos and checklist and commissioning requirements in their contract with the contractor.
- Agree to post-completion monitoring (in line with PAS2035).
- Raise quality issues with their contract administrator and/or contractor.
- Provide access to site.

Retrofit Assessor role

Assessors are the public face of People Powered Retrofit, they meet householders and spend a number of hours in their homes, asking them personal questions and investigating every room in their house.

As well as collecting quantitative data on home energy and fabric, they also collect qualitative data on householders' energy related behaviours, preferences and future plans for their homes. They then use this hard and soft data to formulate a high quality report tailored to householders' individual plans and preferences. Assessors need to be able to put householders at their ease and appropriately answer any questions posed.

The role is analogous to the Retrofit Assessor role in PAS2035 but with an emphasis on real world experience of retrofit.

Tasks

- Communication with Carbon Co-op in advance of an assessment to identify availability and coordinate a booking time with householders.
- Physical data collection: measuring and identifying elements in a home including walls, windows, doors, floors, roofs, heating and ventilation systems etc. Including estimating construction type, material, age and any issues that may require further investigation or rectification before retrofit. Also collection of energy use data.
- Qualitative data collection: 30+ minute interview with householders exploring occupation patterns, preferences and future plans for their home.
- Population of the tool with qualitative and quantitative data, running the energy model to accurately establish current performance.

- Creation of three retrofit scenarios, outlining potential retrofit measures from a library and modelling the impact of these scenarios on energy performance.
- Providing a short written commentary on constraints and opportunities for retrofit, to complete a report generated by the tool.
- Passing the report on to Carbon Co-op checking and issue.

iv) Qualifications

Essential skills

Undergraduate Qualification in Built Environment (building surveying, architecture or architectural technology, engineering), or equivalent demonstrable experience in industry.

Desirable

- Domestic Energy Assessor accreditation
- Chartered status, or working towards RICS chartered status (building surveyors only).
- Academic or professional qualification in a built environment discipline that demonstrates good understanding of building physics
- Academic or professional qualification in a built environment discipline that demonstrates good understanding of building services
- Retrofit specific qualification – e.g. AECB CarbonLite Retrofit, Retrofit Coordinator, Retrofit Assessor.

v) Skills and experience

Essential

- Experience of energy assessment tools and models: SAP (full version),
- Experience of carrying out accurate measured surveys of existing buildings
- Experience of use of spreadsheets for data input and management
- Excellent arithmetic and mathematical skills – to be able to check for errors and assumptions in spreadsheet tools.
- Understanding of building physics, including the thermal and moisture performance of different materials and construction assemblies.
- Understanding of building services including the different heating and ventilation systems available and likely to be present in domestic settings, how they operate and how they are controlled.
- Understanding of the whole house and fabric first approaches to domestic retrofit. .
- Understanding and experience within the construction sector
- Experience of customer-facing roles, in particular dealing with private households/owner occupiers clients.

Desirable

- Good understanding of household energy assessment policy and regulatory environment
- Experience of other energy assessment tools: PHPP, BREDEM, rdSAP
- Experience of working within set systems and processes and adhering to QA protocols.
- Experience of developing tools databases and information management, particularly in relation to construction.

vi) Person specification

Essential

- Excellent risk awareness: you will be required to follow appropriate health and safety procedures as part of this work to protect you and the householders and this must be taken seriously. A commitment to following measures outlined in risk assessments, H&S etc.
- Excellent attention to detail: for the accuracy and efficiency of the work you will need to collect lots of pieces of data with minimal or no errors.
- Efficient use of time: bearing in mind attention to detail, you must work efficiently and effectively, without cutting corners, but without spending excessive amounts of time checking and rechecking measurements
- Good with people, an excellent communicator: you will be in peoples' homes, explaining elements of your work to them and eliciting information from them. You must be polite and considerate at all times.

Desirable

- Flexible: as much as possible assessments will be in regular work hours but someone who is flexible in their availability may be needed to accommodate householder availability.
- Feedback: You need to be able to deliver the tool as designed but also input in to its future development, providing feedback on the method and tools and conveying any issues raised by householders, so that you can contribute to its future development and use

Use of car ability to travel

Use of a car is not a prerequisite for this role though there must be the ability to get to domestic dwellings ie via public transport, cycling etc.

Travel to assessments in the Greater Manchester area is normally included in the standard fee – visits further afield will benefit from a travel uplift payment.

Safe working policy

Survey visits are subject to our People Powered Retrofit safe working policy to mitigate against the risks of Covid-19. A pre-assessment video call is made in lieu of an in person interview and a risk assessment carried out to inform appropriate mitigations for physical visits.

Client conversion rates

KPI report issued to BEIS as part of People Powered Retrofit pilot reporting.

1. KPI definition

4. **Customer engagement** – evidence of further pipeline of projects:

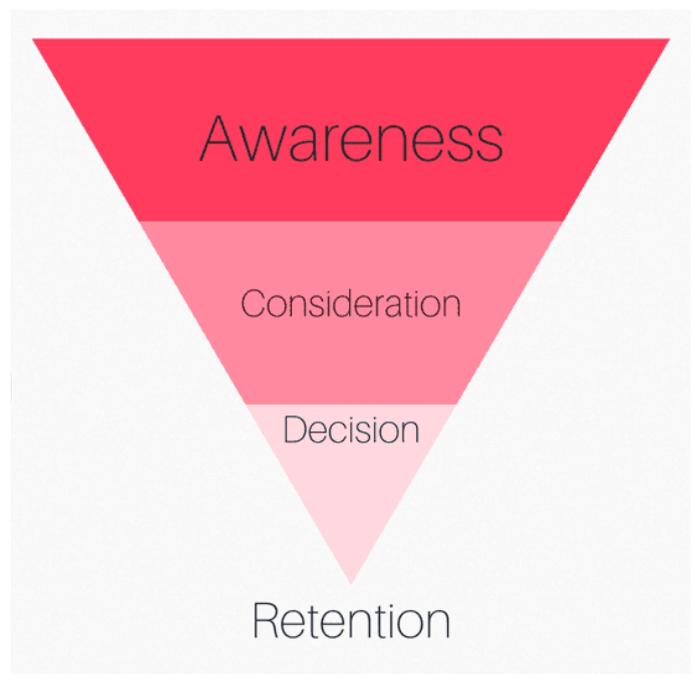
- 4.3 Report on **conversion rates** between clients engaged and services sold.

2. Methodology

In marketing terms, conversion rates are defined as the percentage of people engaged who follow through to a pre-specified goal i.e. the purchasing of a product or service or member registration etc.

Conversion can be multi-layered, for example as below, awareness converts to consideration converts to decision. Retention can also be considered within these layers.

In deciding which goals to measure a key factor is the ability to quantify people at each stage in order to understand conversion. Abstract stages and goals cannot result in conversions.



As well as conversion, to formulate a rate a measure of time needs to be introduced ie over what period of time do conversions take place? A month, a week, a year etc.

2.1 People Powered Retrofit context

There are several considerations to be made for the People Powered Retrofit service. Firstly, in the context of community-based social marketing, what constitutes awareness? Is it people who engage directly with People Powered Retrofit events, who visit the website or people who are aware of People Powered Retrofit?

Ultimately, the ability to quantify is important, so we have used online workshop attendees within 2020-2021 as a simple proxy for engagement.

Social Marketing complicates conversion rates further though. In traditional marketing terms, 'marketing' is a sunk cost with the only purpose of generating income indirectly through conversions and sales. But in community based social marketing, the activity is in itself of value, for example workshops raise awareness, generate new skills and knowledge and have socially and environmentally positive outcomes. Beyond that, People Powered Retrofit online workshops have generated income, turning on its head the idea of marketing as a cost - this reflects new and emerging ideas of crowd-based, socially conscious and ethical marketing approaches.

The latter stages are more easily defined. Enquiries, i.e. a specific request for more information about the service, are recorded via our CRM system and our customer tracking dashboard logs new paying customers. A measure of drop outs within the service demonstrates retention.

We feel it does not make sense to assess conversions between each of the five stages of the People Powered Retrofit as our goal is simply paying clients and issues with the speed at which clients progress will become a factor.

In terms of timescale, due to the scale of service and the high entry costs, it makes sense to us to calculate conversion over a calendar year. As the service went live in spring 2020, the last 12 months offers a good indication of conversion - and the online nature of events means engagement numbers can be simply tracked.

3. Results

Year 3 - 2020-21 Conversion Rates

	Number of people	Conversion rate	Retention rate
Online engagement	2,040		
Enquiries	130	6.4%	
Paying clients	78	60%	
Retained clients	75		94%

4. Conclusion

An important question is how good are these figures by industry standards? As a new and emerging sector, there are few comparisons. There is however lots of data on online conversion rates with anything over 5% conversion being regarded as exceptionally good.

Intuitively, the conversion of enquiries to paying clients appears to be very high, this indicates that people who make contact with the service are serious in progressing - probably an indication of good marketing and communications and means effort can be focussed on serious clients who wish to progress.

Whilst systematic data on why some enquiries don't convert to paying customers is not yet available, anecdotally reasons include being 'out of area' and need to consider the costs of the services.

Because conversion rates can be easily monitored by our internal systems we will continue to monitor these and report on them internally as part of our service dashboard.