# Retrofit Somerset Business Plan

## Introduction

A key deliverable of the Retrofit Somerset project is to produce a business plan which can help to accelerate retrofit at pace and scale across Somerset. Research has been undertaken to review existing business models across the UK and abroad, based on academic and grey (non-academic) literature, conferences, workshops, webinars, and direct conversations.

As the project has evolved, themes and challenges particular to the local context have been identified, which will impact the options available to a future service. This includes financial constraints at Somerset Council, limiting this potential funding avenue in the near term. Meanwhile the broader landscape for retrofit of privately owned housing has shifted, partly in response to government policy fluctuations and funded innovation programmes.

Partnerships formed during the project should be maintained, leveraged and replicated to deliver services of value in a data centric, community focused model. This will provide a basis to develop revenue streams and attract funding where needed to support retrofit works with the urgency required.

## Local context

Somerset had just over 250,000 households at the last census (2021). Of these, 68% were owner occupied and 18% privately rented (or rent free). This means there are approximately 215,000 privately owned homes to be decarbonised.

Government programmes such as the Energy Company Obligation (ECO), the Home Upgrade Grant scheme (HUG), the Boiler Upgrade Scheme (BUS), the Great British Insulation Scheme (GBIS) and earlier manifestations e.g. Local Authority Delivery Scheme (LADS), have provided routes for some of these homes meeting eligibility requirements to install one or more retrofit measures at zero or reduced cost. e.g. 5.4% of Somerset homes had received an ECO measure by December 2023

Subsidised measures are limited by volume and eligibility, do not take a whole house approach, and can often focus rigidly on EPC improvement via the simplest measures to install. This leaves the majority of homes without support.

Somerset has a large proportion of homes with low energy efficiency and which are likely to be harder to treat. Factors which make them so include older properties, solid wall construction, located in a conservation area (171 areas), designated a listed building (1,090 registered listed buildings), off the gas network (47000 properties), and rural.

11.8% of homes in Somerset were heated by oil only in 2021 according to census data. This compares to 3.5% nationally. Including solid fuel, wood and tanked or bottled gas, these figures rise to 14.5% in Somerset v 4.9% nationally.

Somerset has low population density with the largest town (Taunton) having just over 60,000 residents. Larger conurbations bordering the county include Bristol (425,000), Bath (94,000) Weston-Super-Mare (85,000) and Exeter (126,000).

Given the rural nature, there are fewer installers located in the region compared to nearby areas. This makes obtaining quotes for works difficult and possibly increases the receptivity to cold callers offering installation services, which may not be appropriate for those households.

Electricity grid capacity is constrained in large parts of Somerset. This means that additional electricity demand, which is likely to occur with increasing prevalence of heat pumps and electric vehicles, may exceed supply capacity in the near term, in some localities.

There are well established community groups throughout the region. Many of these have a focus relating to the climate emergency. Somerset Climate Action Network has over 50 such members.

**Retrofit models**

Area based models to accelerate retrofit are being investigated and implemented across the UK and beyond. The so-called able-to-pay or willing-to-pay sector i.e., those who do not qualify for grant funding, has only recently begun to be addressed as the extent of retrofit required to meet decarbonisation targets has come into focus, sharpened by high energy prices in recent years, with negative impacts on affordability, comfort and health.

A whole house approach, considered best practice from a holistic viewpoint, takes both heat demand reduction and electrification into account, alongside other important factors such as ventilation. There is some debate, given the need to decarbonise rapidly and cost efficiently, around whether electrification, typically via heat pumps, should be prioritised, however this strategy has a range of potential problems including higher costs, heating performance uncertainty, grid capacity and supply chain constraints. In any case, each household has unique characteristics, not least due to variable occupant behaviour, and will require an individual approach whenever a retrofit plan is developed.

One stop shop models have received substantial funding in research, design and implementation phases. People-Powered Retrofit (PPR), Cosy Homes and Warmer Sussex were all supported by the BEIS Supply Chain Demonstrator Project (as were Futureproof and Ecofurb) between 2018 and 2021, which was intended to “test different approaches for increasing the rates of energy efficiency improvements amongst able-to-pay owner occupiers”. These have gone on to have varying degrees of success:

People-Powered Retrofit based in Manchester has three business strands. One is to deliver full priced retrofit assessments, plans, and support to local households. They don’t deliver retrofit works directly but do maintain a network of contractors and can provide quality assurance throughout. Having developed their own retrofit plan software, this is now available to other providers in a licensing model and has become well established. Thirdly, they deliver training to contractors in order to ensure appropriate levels of skill in delivering retrofit. Now into their third year of operation, People Powered Retrofit is approaching break even across the business model, though the retrofit delivery strand is effectively being subsidised.

Cosy Homes is based in Oxfordshire and works in partnership with communities to promote and deliver retrofit. Retrofit Plans are based on Parity Projects software with the Retrofit Works model employed to access contractors. Cosy Homes charges a percentage commission to both the customer and installer based on the value of works. Despite good levels of demand, the number of retrofit works completed remains low, largely due to supply side constraints. As of early 2024 there was only one contractor authorised to deliver whole house retrofit, with limited prospects of this increasing in the short term.

Warmer Sussex was another Parity Projects / Retrofit Works model, which struggled to get established due to a lack of consensus with advocate organisations on how it should be run and an absence of local authority involvement. Despite this there was demand for the service, but insufficient supply chain available to meet it. Lessons learnt included the need to focus on targeted areas with the ability to deliver plans and works from the outset, then expand geographically over time.

There are different types of one stop shop, which have been broadly categorised as: Facilitation (free advice and signposting), Coordination (access to all services, some provided, others by referral to network), and All-inclusive (single contract with guarantees). Costs of set-up and operation inevitably increase with the scope of service offered.

Local models are being researched, piloted and implemented at various levels including local authorities, communities and collaborations of both. Best practice is not yet established, however the Local Authority Retrofit Accelerator (LARA) model will soon launch, built on the experience of the sector to date.

**Regional initiatives**

Advisory services on home energy saving and retrofit are provided by a variety of organisations, with the Bristol-based Centre for Sustainable Energy (CSE) being the most prominent. Their coverage of Somerset includes the Safe and Warm Somerset programme and the Rural Communities Energy Support Network.

Local and regional projects addressing retrofit in the non-granted funded sector based on free or discounted home retrofit plans have proliferated in recent years. Current projects run by Frome Town Council, Bath and West Community Energy, Exeter Community Energy, and Retrofit West are all based on CSE's Futureproof plan, which was developed and is licensed by People Powered Retrofit.

The Somerset Retrofit Accelerator provided 50 discounted Futureproof home retrofit plans in 2022. It is unknown how many of these stimulated retrofit works to subsequently take place, although a follow-up survey towards the end of that project provided a mixed response regarding the usefulness of the plans. Retrofit Bruton and Cary offered free Futureproof plans during an 18-month project from late 2021.

Undiscounted Futureproof plans are currently available from CSE in Somerset, although it was noted that demand for these was significantly depressed following the discounted plan projects, which were widely advertised locally.

Different formats of retrofit plans are offered locally by private providers including Target CO2. These are less detailed than Futureproof plans, but tend to be more action oriented, and can be an entry point to project management using existing contractor networks. Target CO2 has a developing relationship with Bradfords Building Supplies, which started with offering plans to their employees, and will now be promoted in stores to customers.

Other services that are rolling out nationwide include Furbnow, which operates a similar model, offering options from an assessment and plan through to full retrofit project management working with local installers. They have yet to launch in Somerset, requiring a threshold level of demand before entering a new region, but are well-funded to expand and are working on new products to increase the efficacy and efficiency of the assessment process.

Beyond the retrofit assessment, plan and project management model are more specialist services such as a building performance measurement and monitoring, low carbon and low temperature heating suitability assessment i.e. for heat pumps, and services targeting older homes as well as those with heritage or conservation considerations.

Generic retrofit advisory for those unable or unwilling to pay for assessment and plans is available from reputable sources such as CSE, Energy Saving Trust and Historic England. Remote specific guidance tailored to individual homes based on existing EPC and/or a variety of questions is beginning to enter the market. There are both government and freemium commercial models currently available.

There is not a well established marketplace for retrofit as differentiated from the renovation, maintenance, and improvement (RMI) industry. The Retrofit Somerset Green Directory is a local start, following examples such as The Green Register (TGR), but both could provide better user journeys. TGR's current threshold for listing is those operators who have gone through training with them, whilst Retrofit Somerset has no threshold beyond being a local operator in a retrofit related sector. An aversion to potential liability is a barrier to incorporating any kind of recommendation approach.

**What are the gaps?**

Both Retrofit Somerset and the Somerset Retrofit Accelerator have identified latent demand for retrofit services arising from a range of motivations including: taking action to mitigate climate change, reducing energy bills, increasing comfort in the home and improving health. In some cases financial payback was mentioned e.g. for solar panels when electricity prices were high, but a lack of, or a long payback is more likely to be a barrier to retrofit for those who aren't sufficiently motivated by other reasons.

For those who are trying to retrofit, a variety of challenges and barriers have prevented action. These are familiar beyond Somerset, although some are more prevalent locally:

The cost of retrofit is an obvious major barrier to many. The 'able-to-pay' market for retrofit is extremely segmented with a small minority having funds to complete a whole house retrofit in one go. Retrofit plans are typically designed in recognition of this, with a staged approach to works being a common feature. If followed this should ensure that current affordability does not compromise the need for a holistic approach to achieve the best outcome.

Complicating the financial barrier picture are two factors. One is the intermittent existence of grant schemes, which vary in geographic coverage and eligibility across a variety of criteria. Understanding and navigating these schemes requires degrees of knowledge, time and trust in the process, which may not always be justified. Regardless of eligibility or outcome, awareness of their existence may defer action if it is thought that a future scheme could be introduced at any time to reduce costs of retrofit.

The other related factor is access to, and demand for loans. The marketplace is developing for 'green home' loans, typically mortgage linked from banks and building societies or standalone from the likes of Lendology, but work needs to be done to boost demand. Portraying retrofit as aspirational with a range of co-benefits could help, however the idea of taking on debt later in life may be a decision that a significant proportion of the able-to-pay sector are reluctant to take.

Another major barrier relates to the knowledge required to deliver appropriate retrofit works for any given household. This applies to the householder, but also to the industry delivering retrofit, much of which is applying relatively newly acquired, specialist knowledge, and may therefore lack the experience to achieve a high standard.

Multiple factors can reinforce the knowledge barrier. These may include: existing services providing generic advice based on inadequate EPCs, older homes which do not conform to modern building methods, heritage and conservation restrictions which may vary by locality, scant consideration of actual occupant behaviour, a lack of local retrofit case studies or open homes, inadequate retrofit training, contractors with experience of working on social housing or other grant funded programmes which target EPC improvement only.

Related to the knowledge barrier, but worthy of consideration independently, is the trust barrier. Householders may not know who can be trusted to give them well-intentioned, accurate advice, or sell them appropriate products. The proliferation of grant schemes has inevitably led to the growth of an industry that may take advantage of inadequate regulation, especially with regard to post retrofit building performance evaluation. Acquiring measurement and monitoring services will inevitably add to costs unless these become regulatory requirements.

Finally, delivery of retrofit depends on an appropriately skilled workforce, with sufficient capacity to meet demand within reasonable timeframes and offering complete geographic coverage. All of these factors may be constrained at current levels of demand, so will need to rapidly scale to meet necessary future levels of delivery.

It is also worth mentioning the hassle factor of retrofit. Although any kind of home renovation or extension project can be disruptive, retrofits, especially deep or whole house retrofits, can require stripping back the building to its very basic structure and may take several months or longer to complete. Even simple measures such as loft insulation can seem daunting given the propensity for households to use this space as storage for infrequently used or long forgotten items.

**Solutions**

A suite of solutions can support retrofit across Somerset. Some are in development, some need reinvigorating and others are novel. The extent to which these are rolled out will depend in part on funding, however low cost, high leverage solutions should be supported as a priority.

To deliver an effective retrofit strategy at any scale requires data which is accurate, relevant, current, and accessible. Retrofit Somerset partnered with the Centre for Energy Equality to develop such a resource, which leverages their existing Fairer Warmth platform. This is now ready for use by stakeholders across Somerset and can be accessed here. (See Appendix for example outputs)

The platform utilises housing stock data derived from the EPC database, alongside multiple other sources including census, MCS, flood risk, and network capacity. This enables a holistic view of the stock and can be viewed in map based or chart formats with source data downloadable for any region. These regions can be chosen from pre-defined areas e.g. former district councils and postcode areas, or designed by the user.

The ultimate utility of the data platform will in part depend on uptake across the county, as communities will be best placed to interpret data in their local contexts and design strategies accordingly. They will also be able to update data via local administrator rights and the Fairer

Warmth app rollout, which is currently in pilot phase. This provides the potential for far more accurate data than is available from existing databases.

At a broader scale, the ambition is to develop a unique sector intelligence resource, which gains credibility and usefulness over time. At a minimum, reporting outputs could be designed and distributed to communicate the scale of retrofit needed, progress being made and to outline specific opportunities. This could then feed into regional strategies, supply chain development initiatives and funding bids.

For householders, the Fairer Warmth app can be an entry point to energy saving and retrofit advice, as well as keeping track of opportunities and progress on their retrofit journey. The ambition is for local advisors, known as energy champions, to be available to assist those less confident or unable to access the app. A possible route to use of the app is via existing community services such as Citizens Advice or Village Agents, where specific energy-related services do not already exist.

The app would complement the development of area-based retrofit initiatives e.g. bulk purchasing, by supporting the presentation of information and gauging of interest, along with a Customer Relationship Management (CRM) type database for ease of administration. This can also be helpful for provision of evidence on the impact of ongoing campaigns, especially those funded by third parties.

Future service developments could be integrated with the app as it becomes established, or to help it become so. Fairer Warmth rollouts are at early stages in various locations across the country, so lessons learned and results that are replicable and scalable would be of great value to the industry, thus supporting the case for funding bids.

Another pilot project established through Retrofit Somerset is the Thermly heat pump customer journey platform. This intends to make the transition from fossil fuelled to decarbonised heating much easier than the current experience. The pilot is taking place in two areas in South Somerset for 18 months, after which a wider rollout is planned.

Whilst the current focus is on heat pumps, a marketplace to cover all aspects of retrofit could provide a valuable service, particularly as the retrofit sector graduates from early adopters to the mass market. It will likely take a number of years to develop the supply chain to meet this demand, however models could be piloted at a hyper local scale where sufficient capacities exist or could be attracted.

Such a marketplace could provide a variety of revenue generation opportunities to cover service costs, justified by a saving of time and resources compared to the status quo. The emphasis would need to be on provision of high quality and value to the householder, to build and maintain confidence in the service.

To help build demand, examples of successful retrofits need to be demonstrated in relevant local contexts. Open Homes events have taken place sporadically across the region in the past, and no doubt provided inspiration to those attending, however a structured approach, including retention of knowledge for dissemination to wider audiences in time and place would multiply their impact.

The Somerset Retrofit Accelerator project held 4 webinars, with 2 to 3 presenters in each. Their video case studies have been retained and are accessible via the Retrofit Somerset website. This model requires some resource to scale, however given widespread access to suitable recording media i.e. smart phones, it should be possible to establish a community led approach to generation and distribution of retrofit content.

Initiatives such as Nesta's Visit a Heat Pump have the potential to accelerate the open homes aspect, without the need for community organisation, which may be more appropriate in some areas.

Alongside case studies, there is a need for a trusted source of locally relevant information on all things retrofit-related. Whilst the Fairer Warmth app can perform this role to some extent, it will not be appropriate for everyone. The Retrofit Somerset website, developed during the Somerset Retrofit Accelerator project is the prototype for this resource. It contains a directory of contractors operating in the region, as well as signposting to resources.

To improve the relevance and impact of such a website requires dedicated resourcing to provide regular updates and outreach. Many examples exist e.g. Future Ready Homes and Your Home Better. As the front door to a retrofit advisory service of any kind, it is imperative that the site is well-designed and accessible across platforms.

Aligned with services that can be offered directly or indirectly is the need to address specific problems requiring partnership approaches. These include supply chain development, older buildings, heritage and conservation area considerations, and heat network projects. In each case experts or existing institutions will be best placed to deliver solutions, however these can be facilitated by the sector intelligence, community network and mission focus offered by Retrofit Somerset.

The National Retrofit Hub is operating a working group model with volunteer stakeholders taking part in task and finish projects. A similar approach may be appropriate for Retrofit Somerset. In the case of retrofit supply chain development, many parties recognise the need but are not working effectively together to solve the problem. As approaches such as the Green Skills Advisory Panel (GSAP) model emerge, they need adoption and co-ordination to ensure timely progress.

Similarly with hard to treat homes, which applies to many households across Somerset, appropriate advice is difficult to find. Taking the example of neighbouring initiatives such as Green Heritage Homes and replicating the consortium approach by involving locally relevant organisations in a working group would at least provide some impetus to developing a solution.

A further iteration of the business model could involve the generation and sale of retrofit credits, and distribution of revenues. This is based on a proposition developed by the Housing Associations' Charitable Trust (HACT) and PNZ Carbon, which launched in 2022. Initially aimed at the social housing sector, where stock data and retrofit works are more established, the concept can equally be applied to the private sector, although requiring some level of co-ordination either by installers, or other networks with reach to homes that have been retrofitted.

Credits for retrofit works are calculated (based on tonnes of $CO_2e$ saved per year versus an energy efficiency benchmark), verified and issued for sale by PNZ Carbon in accordance with the Verified Carbon Standard. HACT has approved buyers who wish to offset their unavoidable emissions, although the possibility exists to find local buyers. Revenues generated must be spent on a restricted list of environmentally or socially beneficial activities, including further retrofit works. A non-monetisable social value for each credit is also calculated.

Retrofit Somerset is well placed to generate these credits via existing and evolving initiatives, namely the Fairer Warmth data platform and app, as well as the Thermly platform. In the former case, it would be possible to identify historic retrofit works via data analysis and/or via use of the app in communities. In the latter, customer journeys through the platform could include generation of credits as a feature of the buying and installation process. Via either route permission would be

sought from the homeowner to apply for credit generation, with the returns assigned either back to them or to a range of possible uses, including local community projects. Once the verification procedure has completed, credit revenues can be assigned accordingly. Furthermore, they would then be eligible for revenue each year until 2042 under the current scheme rules.

In terms of magnitude, the current estimate is that revenues over the scheme's lifetime could cover ~15% of the capital costs of works, which although variable by measure, could contribute a significant amount when considering Somerset homes need to abate ~1 million tonnes of carbon per year, which is worth ~£50 million per year at current credit prices (net of HACT fees).

**Delivery resources**

The intention is to develop a business model based to a large extent on platforms and partnerships, which would alleviate the need for a substantial cost base relative to the extent of services to be delivered. Notwithstanding, some key functions would need to be covered in order to produce high impact services. These would include:

Community engagement - to develop and manage relationships with community organisations and key individuals.

Data management, analytics and reporting - to maintain and leverage the value of the data platform and derived services.

Event management, case study development - to help organise regular Open Homes and stakeholder events across the region, as well as generate case study content.

Website maintenance, social media management, content creation - to maintain and continually update the 'front door' to the services available.

Overall project management, stakeholder and supply chain engagement - to manage the various partnerships, workstreams, networks and working groups.

Retrofit credit generation, grant management - to facilitate the generation of credits and manage the resulting revenue streams.

Retrofit expertise – to ensure all outputs are delivered with best practice in mind.

Other costs to include would be those necessary to maintain platforms and the website, as well as regular event hosting.

Total costs would vary depending on scale, however a working assumption is that a full service could be delivered for £400,000 per year.

**Revenue sources**

There are various potential sources of revenue which could lead to a sustainable business model. Given that retrofit services are not currently envisaged as being directly provided, these sources would likely come from facilitation of such services as well as other sources of value to a range of parties. These could include:

Referral fees for retrofit services contracted via the marketplace - this is effectively the Thermly model for their heat pump platform whereby a percentage of contract value is charged to the installer. A marketplace offering a range of retrofit services could operate in a similar fashion. Alternatively, direct arrangements with providers for bulk services e.g. multiple installations in a small geographic area, which should stimulate economies of scale and a share of cost savings.

Sponsorship of events and reports - by creating sources of value in the development and hosting of high-quality events, and definitive reports based on a unique combination of data and community intelligence, it should be possible to generate revenues from the private and public sector, who are aligned with the outputs delivered.

Retrofit credit origination and processing fees - in developing a source of revenue which may otherwise be practically unobtainable, it would be justified to charge fees for the generation of retrofit credits, as HACT does in providing the overall service (currently ~25% of gross credit revenue). It may also be feasible to direct some revenue to cover wider business model costs, given the alignment of scheme requirements with accelerating retrofit. Even without the latter element, once the model achieves modest scale relative to the pace required to achieve net zero targets, even a small admin charge could cover business model costs, whilst generating substantial revenue to be recycled into community projects or discounted retrofit services.

**Business model development pathways**

It may be expedient to demonstrate elements of the business model on a project basis prior to embarking on the full model. These demonstrator projects would require grant funding, which would be sought on the premise of producing scalable, replicable, value propositions.

One such project could feature a comprehensive baseline report describing the Somerset housing stock and its potential for retrofit. The analytical component, centred on the Fairer Warmth data platform would be reflexive, in ensuring that the platform could deliver desired outputs. It could also include a pilot of the data augmentation potential from community use of the Fairer Warmth app. Resource should be included for a report launch event and an action plan to leverage its contents.

Another project would aim to prove the viability of retrofit credit generation from an atomised housing stock via multiple routes including community groups and customer journey platforms. Communication strategies would be key to engaging householders to sign-up, whilst a robust, regenerative, revenue realisation and redistribution model would be vital to ensure the integrity of the scheme.

A financial model aligned with decarbonising all of Somerset's housing stock by 2050 is contained in the attached Excel file. 

**Organisational structure**

Retrofit Somerset has to date existed as an unincorporated collaborative partnership hosted by Somerset Climate Action Network, with participation from Somerset Council including related bodies such as Somerset Independence Plus, local councils including Bruton, Frome and Glastonbury, community based organisations such as Burnham & Weston Energy, the Centre for Sustainable Energy and Lendology.

The project was funded for a year from March 2023 by the MCS Foundation with additional funding from the Retrofit Bruton and Cary project. These funds covered a project manager, the data platform contract with the Centre for Energy Equality (CEE), the 'Exploring Solutions' event held in March 2024 and some ongoing website costs.

Whilst partnership agreements have been signed with CEE, Thermly and MCS for the provision of data, there is no agreed organisational structure to take the project forward. Given that Somerset Climate Action Network is an established Community Benefit Society and so eligible to bid for grant funding, it would make sense to retain the status quo as a project hosted by them until a compelling alternative is decided upon, or until a sustainable business model becomes established.

One such structural option is to become a joint venture partnership or special purpose vehicle which could retain the partnership approach with agreed goals. This for example would allow Somerset Council to play an active integral part, which may be required and desirable from a resourcing perspective, at least initially.

Incorporating in one of various charitable structures should also be considered, with the aid of expert advice, alongside evolution and adoption of a business model direction. If the distribution of retrofit credit revenues becomes a key theme, then a particular or separate structure may be required.

Whichever structure is adopted, there will be a need for a constitution or agreed set of goals and operating requirements. A primary goal based on housing stock $CO_2e$ emissions reductions would be measurable and desirable. Co-benefit metric accounting should also be included, with a goal to ensure disbenefits are avoided and co-benefits maximised where possible i.e. financial savings, health outcomes, comfort ratings.

**Next steps**

Retrofit Somerset is not currently resourced in terms of paid staff, relying on ongoing involvement of the previously funded project manager and Somerset Climate Action Network representative to field incoming enquiries and maintain contact with the pilot and data partners.

There is no immediate prospect of revenue generation from the pilot projects, data platform or any other services, however there is potential to bid for funds to further develop various aspects of these or related ventures which could include dedicated resource funding.

Target funds include Energy Redress, which typically opens quarterly and would suit an application to their Innovation Fund. At a larger scale is the National Lottery Climate Action Fund, which is currently open to applications.

Other initiatives that are being actively considered include the Local Authority Retrofit Accelerator (LARA), which will develop a master planning approach with chosen pilot partners. There is also some momentum within Somerset Council to encourage retrofit supply chain development, partly as a result of Retrofit Somerset events and outreach.

For the time being Retrofit Somerset can exist in a minimalist sense, however momentum gathered from partnerships and events will be lost without some degree of resourcing in the near term.

**Appendix - Business Plan (Short version)**

**Goals**

The primary goal is to decarbonise the Somerset housing stock, from which emissions are currently ~1 million tonnes $CO_2e$ per year (~250,000 homes x ~4t$CO_2e$ per average home). To meet a 2050 net zero target requires an average ~40,000 tonnes $CO_2e$ reduction per year, or 10,000 average homes fully decarbonised per year. Retrofit Somerset will focus on privately owned homes (~215,000), and collaborate with social housing providers e.g. on mixed tenure strategies. Alongside the $CO_2e$ reduction goal are potential co-benefits including energy cost savings, occupant health and well-being improvements and increasing the longevity of the building fabric.

**Barriers**

The are 3 main barriers which need to be overcome in order to achieve anything like the scale of decarbonisation required:

- The knowledge to understand appropriate retrofit measures for any given home and occupancy needs to be accessible and affordable.
- Local supply chain skills development and capacity expansion are required to deliver retrofit measures at scale and pace.
- Sufficient financing to fund retrofit measures needs to be identified and allocated.

Other barriers, which are related to those above include heritage and conservation considerations, regulatory complexity, policy uncertainty, and trust issues for both demand and supply sides.

**Products & Services**

Retrofit Somerset will operate a data-centric, community-focused model to help address these barriers in the following ways:

Maintain and provide access to a housing stock data platform covering the region (in partnership with the Centre for Energy Equality). This will:

- Provide area-based views on the state of the housing stock and the measures needed to decarbonise.
- Demonstrate the extent of demand to encourage supply chain growth via regular analytical and ‘State of the Sector’ reporting outputs.
- Identify opportunities to deploy multiple measures at community level and benefit from economies of scale to reduce costs.

Rollout a household app (Fairer Warmth), which can be used to:

- Provide energy saving and retrofit advice to each householder based on their own property characteristics.
- Inform householders of local suppliers and facilitate communities to coordinate activities in dealing with suppliers.
- Signpost grant funding and other financial assistance based on household eligibility criteria.

Develop a marketplace platform for all types of retrofit services (Thermly model), which will:

- Enable householders to minimise their time spent on finding appropriate services and increase their confidence by only allowing local peer approved suppliers.
- Reduce time and costs for suppliers of retrofit services to find customers.
- Stimulate lower costs of delivery via marketplace efficiencies.

Host open homes events and develop case studies. This should:

- Stimulate demand for retrofit measures by demonstrating local success stories and allowing any questions to be answered within local peer groups.
- Provide an opportunity for suppliers to showcase their work in-situ and engage with potential new customers.
- Enable communities to develop local retrofit plans with an exemplar led approach.

Host a website with resources to cover a range of needs including:

- A directory of peer approved suppliers.
- A library of case studies in accessible formats.
- Advice and signposting to trusted resources.
- Regular articles on relevant topics, news and events.

Working group facilitation (National Retrofit Hub model) with relevant stakeholders to overcome persistent barriers and develop specific projects such as:

- A skills and supply chain development strategy.
- An advice service for those in older and heritage homes, and conservation areas.
- Development of a listed building planning consent policy.
- Heat network mapping and project development.

Develop grant funding from generation and sale of retrofit credits*, which could:

- Give householders the opportunity to reduce the costs of future retrofit works.
- Provide income to communities for local decarbonisation and environmental projects.
- Subsidise training course costs for the supply chain.

**Costs**

An FTE light model, with appropriately skilled, well-paid staff for roles covering:

- Community engagement.
- Data management, analytics and reporting.
- Event management, case study development.
- Website maintenance, social media management, content creation.
- Retrofit credit generation, grant management.
- Overall project management, stakeholder and supply chain engagement.

Other costs would include:

- Event hosting.
- Data platform, marketplace and website development and maintenance.

**Revenue**

There are various potential sources of revenue including:

- Referral fees for retrofit services contracted via the marketplace.
- Sponsorship of events and reports.
- Retrofit credit origination and processing fees (see below).

**Structure**

Retrofit Somerset is currently unincorporated, existing to date as an MCS funded project hosted by Somerset Climate Action Network. Options include:

- Remaining a project within Somerset CAN.
    - This may be preferable at the outset to retain eligibility to apply for grant funding needed to establish the business model, before it becomes self-sustaining.
- Incorporating as a not-for-profit, probably a CIC, however if the retrofit credit grant funding model works, then an alternative or additional charitable structure may be required.
- Becoming a joint venture partnership or special purpose vehicle with partners to deliver on agreed goals.

Suggestions for the constitution of the organisation include:

- A primary goal based on housing stock $CO_2e$ emissions reductions.
- Co-benefit metric accounting along with $CO_2e$.

***Retrofit Credits**

The viability of a self-sustaining business model and the potential to generate a fund for recycling into further retrofit activity, depends in part on the origination and sale of retrofit credits. The concept has been developed by HACT, originally for social housing providers, but is equally valid for the private sector. Initial conversations have taken place as to how this might work for Retrofit Somerset and a separate business plan will be developed to explore this fully. In brief however:

- Decarbonising 1,000 tonnes $CO_2e$ through retrofit works could generate £50,000 per year for the lifetime of the credit scheme (currently to 2042) at current carbon prices (net of HACT fees). This is the equivalent to full decarbonisation of 250 average Somerset homes, or 0.1% of the housing stock.
- Scaling to 1% stock decarbonisation, could generate £500,000 per year, which would more than cover Retrofit Somerset running costs (based on 6-8 FTEs + maintenance, events etc.).
- HACT are looking into securitisation structures, such that credits for future years can be pre-sold. This would mean more funds available earlier, rapidly increasing the scope for retrofit works.
- The fastest way to decarbonise, and therefore generate credits, is likely to be electrification of heat e.g. heat pumps replacing fossil fuels. Thermly have developed a heat pump customer journey platform that will launch soon in South Somerset. Retrofit credit generation could be incorporated into that platform relatively easily.
- Retrofit credits can be originated for any works that have taken place since July 2022. Community engagement to discover qualifying work could kick start retrofit momentum across Somerset and be facilitated via rollout of the Fairer Warmth app.
- Credits can only be sold to approved off-takers with net zero aligned goals. HACT can manage this, or the option exists to find local buyers who want to offset their unavoidable emissions locally.
- Credits have a social value as well as a carbon and financial value. HACT would produce this metric as standard.

**Appendix - SWOT Analysis**

**Strengths**

- Community
    - Deep community links from Somerset Climate Action Network.
    - Engaged communities already trialling retrofit models and willing to share lessons via trusted intermediary.
- Focus
    - Singular focus on decarbonising housing stock in Somerset.
    - Model dependent on promoting and achieving retrofit activity.
- Data
    - Bespoke analytical platform developed and available via partnership with CEE.
    - Access to more accurate data than generally available through rollout of Fairer Warmth app

**Weaknesses**

- Funding
    - Initial funding required to develop resources and engage market
    - Ambition to achieve financial breakeven within 5 years dependent on untested revenue model
- Brand
    - Retrofit Somerset has some traction but needs marketing effort and resource to become a trusted brand.
- Supply Chain
    - Sufficient skills and capacity to deliver retrofit targets do not currently exist and so will need to be developed throughout.

**Opportunities**

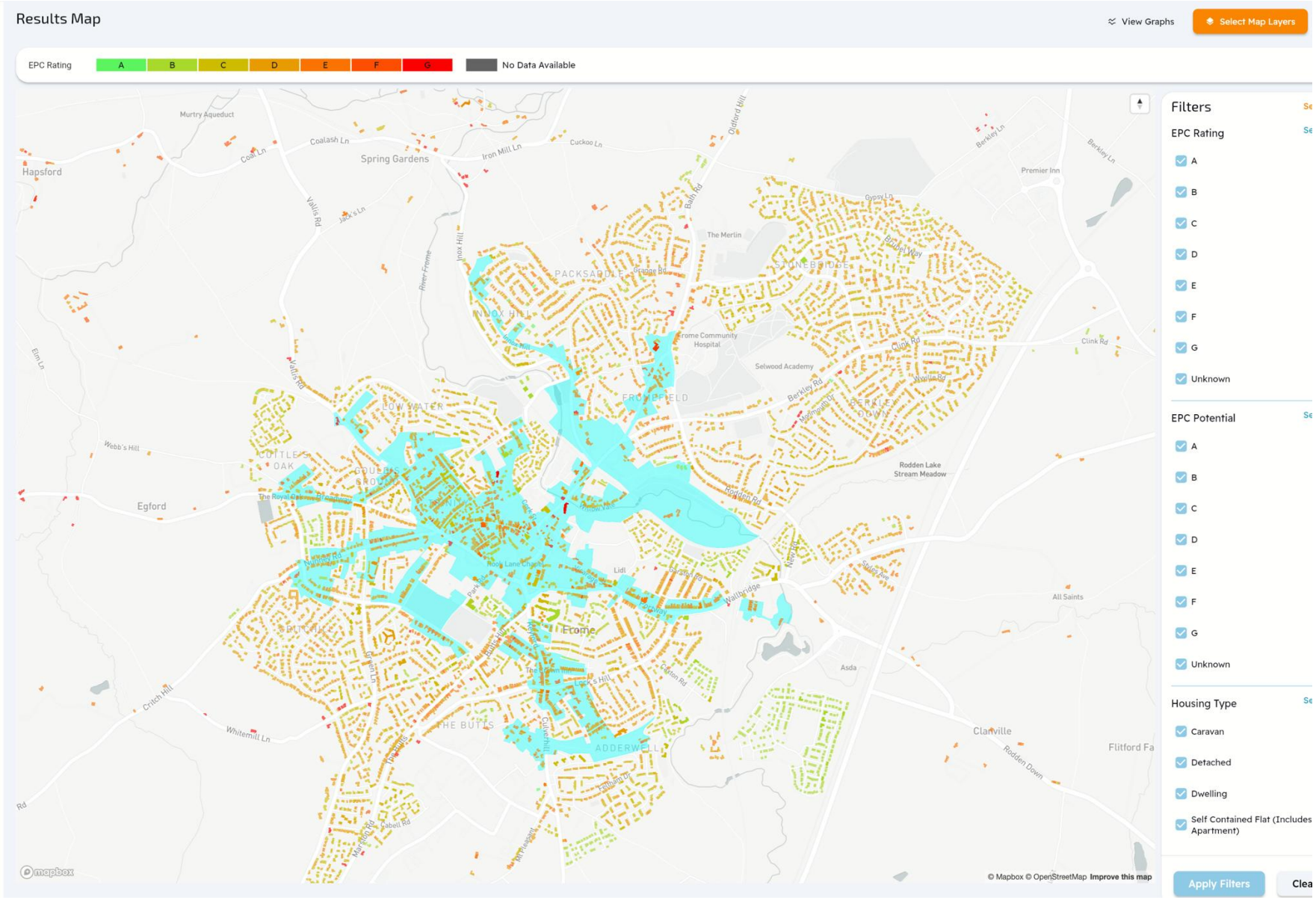
- Market Growth
    - Demand for retrofit exists and the opportunity to reduce bills, improve comfort and health, allied to climate change mitigation mean there are numerous drivers for this to accelerate.
- Service Development
    - A lean model is currently assumed, with outsourcing of services, however some of these could be brought in-house as reputation evolves and financial sustainability is established.
- Government Policy Alignment
    - An improved policy climate with supportive legislation should stimulate the market for retrofit.

**Threats**

- Competition
    - Existing providers in other regions may see Somerset as a potential expansion opportunity e.g. Retrofit West
- Economy
    - The economic outlook is not particularly good, so may discourage investment in retrofit.
- Climate Change
    - Although the business model seeks to mitigate climate change, this may accelerate and cause local disruption e.g. flooding, potentially delaying retrofit works.

# Appendix – Fairer Warmth Data Platform (Graph View)

## Appendix – Fairer Warmth Data Platform (Map View)



**Appendix – March 2024 Retrofit Workshop Photos "Exploring Solutions to Retrofit Challenges in Somerset"**