



Bristol City Leap

Summary of Initial Business Plan

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Bristol City Leap Energy Partnership

BRISTOL
city leap

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Foreword

Climate change is one of the biggest challenges that we face. The impact of global warming is changing our natural world with devastating effect and frequency. Energy prices are rising due to international tensions and these rises are rippling through all global markets. Inflation is driving up the cost-of-living leading to a substantial increase in the number of people living in fuel poverty.

We are in the middle of a perfect storm of international, economical, and ecological pressure where only the combined action of every individual and organisation can bring about the change necessary in the little time available to steer humanity away from a catastrophe. The few with the resources and influence, have a responsibility to unlock the ability of the many to participate positively in the actions necessary to create a transformative system for everyone.

The City Leap Energy Partnership is a key component of Bristol's response to the climate emergency. This is a twenty-year joint venture between Bristol City Council (BCC) and Ameresco to demonstrate how public and private sector organisations can come together with an entire City to transform the way that Bristol generates, distributes, stores and uses energy.

This is about inclusive, City-scale action to enable every individual to participate in and benefit from this essential drive to scale up the action required to tackle the climate emergency and achieve a just, green transition for everyone.

Ameresco will have the contractual obligations to deliver decarbonisation targets with Vattenfall, our partner, undertaking the key commitments in relation to heat networks.

Together, in partnership with the community, we are committed to delivering a legacy of self-perpetuating, positive change towards a fair and sustainable future for all generations to come.

A handwritten signature in black ink, appearing to read "M. E. Apsey".

Mark Apsey MBE

Managing Director of Ameresco and
City Leap Energy Partnership

Executive Summary

Welcome to Bristol City Leap

Bristol City Leap is a brand-new partnership between BCC and Ameresco which will accelerate green energy investment in Bristol and help towards decarbonising the whole City.

This is a big deal for Bristol. For the residents of Bristol, City Leap has the potential to deliver a better quality of life by improving the warmth and comfort of homes, improving air quality, and creating thousands of local jobs.

Vision for Bristol City Leap

A sustainable environment, in which every individual has equal access to opportunities and is empowered to contribute to the continuing decarbonisation of their city whilst sharing in its success.

Bristol City Leap's Mission

Action on City-scale decarbonisation of the built environment, working together to harness the power of communities, public and private sector resources to significantly respond to the climate emergency, fairly and inclusively, delivering shared outcomes for the city.

A Leap Forward on our Journey to Carbon Neutrality

As part of its winning bid to become BCC's Strategic Partner for City Leap, Ameresco has contractually committed to the following Key Performance Indicators (KPIs) over the next five years:

- c140,000 tonnes of carbon saving.
- c.180MW of zero-carbon generation assets contributing to net zero carbon by 2030.
- c327GWh of zero carbon energy generated.
- c£22m of energy efficiency measures deployed.
- £61.5m of social value including c£50m of contracts delivered by local supply chain.

To deliver the above, Ameresco estimated that Bristol City Leap would need to invest £424m into low carbon energy infrastructure such as solar, wind, heat networks, heat pumps and energy efficiency measures - all of which will support Bristol meeting its carbon reduction ambition of becoming carbon neutral by 2030.

In addition, Ameresco has also committed to the following:

- A guaranteed £1.5m Community Energy Development Fund and a guaranteed £500k. Innovation fund over the first five years of the partnership.
- Development of a Community Benefit Fund expected to reach £2.8m during the concession period.
- £2.34m of guaranteed payments and an estimated £1.63m of risk-based payments to BCC, the latter being dependent on the level of delivery by City Leap.
- An estimated £6m+ crowdfunding opportunities for residents to invest in City Leap projects.
- 410 new jobs created in Bristol and 1,000 jobs in total, all paying at least the 'Real Living Wage'.
- Apprenticeships, training, work placements, mentoring and awareness opportunities.

Initial Business Plan

Context for Bristol City Leap's Initial Business Plan

This Initial Business Plan covers the time period 4 January 2023 to 31 March 2028 ("Business Plan Term") and will be reviewed and updated annually ("Business Plans"). The City Leap Initial Business Plan comprises two elements; the Low Carbon Energy Infrastructure (LCEI) plan developed by Ameresco, and the Heat Network plan developed by the Ameresco's subcontractor, Vattenfall Heat UK.

Each Business Plan is an indicative document, setting forth (at the date of its publication) the Strategic Partner's intended roadmap to achieve the contractually binding Key Performance Indicators set out on the previous page.

The deliverability of each Business Plan, and the projects listed in it, will depend on a wide range of factors, including prevailing market conditions, technological advancements, the availability of funding (including grant funding), government energy policy, third party involvement, support from BCC, the global macro-economic and political environment and end user take-up.

The Business Plan will evolve over time and will be agreed and amended by the Council and Ameresco. However, the Strategic Partner's success in delivering City Leap is measured against the Key Performance Indicators (KPIs) and, accordingly, each iteration of the Business Plan does not represent a new set of legally binding obligations on the Strategic Partner.

Clearly a business plan is only a snapshot at a particular point in time and will evolve as the energy infrastructure landscape changes, for example in response to changes in government policy and financial support. As such and noting that we live in extraordinary times as regards energy prices, the ambition set out in this business plan and in relation to any individual technologies referenced should be read in this context.

Risk Management

Bristol City Leap is a first of its kind approach to decarbonisation at City scale and as with all pioneering projects comes with a level of risk. Acknowledging this as well as the inherent risk of not tackling climate change motivates the Bristol City Leap risk management system. A multi-layer risk management process will be applied to ensure the success of Bristol City Leap at all levels. This includes:

- **Macro level risk** – Constant monitoring of key information channels to assess risks including the influence of world affairs on energy pricing, equipment, and resource availability. Regular impact assessments will be shared via quarterly and ad-hoc reporting based on impact severity.
- **UK regulatory risk** – Monitoring via consultancy services for changes in UK energy industry regulation and central government thinking relating to future energy and environment compliance. Impact assessment and awareness will influence strategic planning at the business plan level and tactical planning in the daily operations of City Leap Energy Partnership.
- **Bristol City local risks** – Work closely and regularly with local stakeholders spanning community groups to local and national industry leaders to assess influences on the local energy landscape.

City Leap Energy Partnerships will collaborate to mitigate risks and influence the Bristol City decarbonisation agenda.

- **Operational and project risk** – City Leap Energy Partnership will operate an accredited quality management system with proven operational and continuous improvement procedures to control and manage all associated project delivery risk to Bristol City Leap and its stakeholders.

Strategic Goals for the Initial Business Plan

By 2025:

- Achieving carbon neutrality of BCC's operational estate.
- Supporting the development of a highly skilled local supply chain.
- Delivering consistently high level of decarbonisation projects to help drive down installation costs.
- Becoming first choice decarbonisation partner for all sectors in Bristol.

Within five years:

- Developing a local energy trading market for all to participate fairly in.
- Demonstrating a successful, world-renowned partnership approach for City-scale decarbonisation.

By 2030:

- Achieving EPC rating 'C' or better for all the Council's social housing.
- Significantly contribute to Bristol becoming carbon neutral.
- Supporting significant reductions in cases of fuel poverty and unhealthy homes.

Strategy to Deliver the Initial Business Plan

The following sets out the key elements of the detailed strategy to deliver the Initial Business Plan:

The Council's Estate

- Work with the Council's Service Areas to develop and agree decarbonisation programmes for the Council's operational estate and social housing.
- Subject to further approval from the Council's Cabinet, seek to maximise grant funding and other funding sources to leverage the decarbonisation capital funding set aside in the Council's budget to deliver large scale decarbonisation programmes in the Council's operational estate and its social housing.
- Deliver large-scale renewable installations such as wind turbines and solar farms.
- Develop EV charging models and secure EV mixed portfolio funding partnerships.

Heat Network

- Continue the build out the existing heat networks including Bedminster.
- Develop new heat network areas (including the Strategic Heat Main).
- Invest in new customer connections and new low carbon heat sources.
- Operate the network effectively to provide excellent customer service with fair and transparent pricing.

Additional Commercial Models/Marketing

- Develop and implement the appropriate combination of commercial models, e.g. Energy as a Service (EaaS), to minimise future reliance on grant or Council funding.
- Maximise 'low income' household upgrade grants for private households.
- Position Bristol City Leap as first choice decarbonisation partner for other public and commercial sector customers.
- Develop targeted marketing and sales strategy to support business plan and KPIs.

Supply Chain

- Secure strategic procurement partnerships maximising volume pricing and availability of key technologies including heat pumps and rooftop solar.
- Rapidly scale up a skilled local supply chain through partnerships with the Council, local business forums, industry accreditation organisations and skills training establishments.

Social Value

- Develop Social Value and EDI strategy to maximise local community participation supported by a £1.5m community energy development fund and £500k R&D fund.
- Establish community forums and a heat network advisory panel to consult and inform BCL board and management team to support the "just transition" to a low carbon economy.
- Commitment to explore opportunities for community energy projects linked to LCEI projects and the Heat Network.

Smart Energy System

- Further develop the 'sleeving' arrangement whereby the Council self-supplies power from its renewable energy generating assets to enable multiple generators and customers to participate.
- Develop demand side response capabilities utilising the wide range of LCEI and heat network assets developed or managed through the City Leap and connected to the smart low carbon energy system to provide energy system flexibility, balancing and resilience.
- Apply for regulatory sandboxes to trial innovative solutions.
- Create an 'Innovation leaders' forum' to work strategically with large scale land and infrastructure owners, service operator's and major utility generators, distributors, and users in Bristol to maximise City scale opportunities and minimise disruption.

Medium/Long Term Marketing

- Commence medium to long term communication and engagement plan to catalyse Bristol City as the green economy epicentre of the UK and stimulate a local movement towards ensuring the sustainable availability of equipment and local skilled resources.
- Build strategic relationships with WECA and neighbouring authorities to unlock additional funding sources for BCC to deliver aligned regional decarbonisation strategy.
- Lobbying for change – work with likeminded organisations and universities to develop white papers to support open energy market trading for all to participate fairly.

Bristol City Leap's Initial Business Plan Overview and Key Highlights

Since its appointment as the Preferred Bidder for the City Leap Energy Partnership in April 2022, Ameresco and its subcontractor, Vattenfall, has extensively engaged with Council staff to better understand and explore opportunities for low carbon energy projects on the Council's estate and future expansion of the heat network.

The resultant Initial Business Plan (IBP) seeks to ensure that the contractually binding KPIs for carbon reduction, etc., are met. The forecast carbon savings are c152,000 tonnes over the IBP time period, which is more than the contractually committed KPI of 139,120 tonnes, as set out in table 1 below. The IBP estimates that to achieve this, will require an investment of c£631million over the IBP period.

		Bid Plan	Int Bus Plan	Int Bus Plan - Bid Plan
Development KPIs	Unit	Contracted	IBP Forecast	Positive KPI variance
Zero carbon generation assets deployed	MW	181.6	194.5	12.9
Zero carbon energy generated	GWh	327.3	376.1	48.8
Energy efficiency measures deployed	£m	22.1	77.1	55.0
Carbon KPI	Unit	Contracted	IBP Forecast	Positive KPI variance
Carbon KPI	tCO ₂ e	139,120	152,881	13,762

Table 1. Bristol City Leap's Initial Business Plan exceeds the contractually committed 5-year Development and Carbon KPIs. KPI targets.

Bristol City Leap's Initial Business Plan comprises two key elements, the Low Carbon Energy Infrastructure (LCEI) Plan and the Heat Network Plan. The LCEI plan includes all decarbonisation works not related to the heat network, which is wholly covered within the Heat Network Plan.

The Initial Business Plan considers the recent and significant changes in the energy, labour, and materials markets on communities since the submission of the business plan submitted as part of Ameresco's winning bid, the Bid Plan. It also considers how economic volatility poses significant risk to traditional central government funding streams and most importantly, how an aligned decarbonisation strategy can benefit the growing needs and concerns of the local community.

Acknowledgement of these aspects in both the LCEI Plan and Heat Network Plan has driven a change to the strategy, to support delivery of a stretched Initial Business Plan, with the underlying ambition to increase the focus on community centric LCEI projects and maximise the impactful benefits of Bristol City Leap for the community through improved quality of living conditions, well paid work opportunities with skills training and long-term career prospects.

Firmly acknowledging commitment to the minimum contractual KPI targets set out in the bid plan, the Initial Business Plan now combines a mix of solutions from both the LCEI Plan and Heat Network Plan, enabling the City Leap Energy Partnership to forecast a more ambitious Initial Business Plan delivery focused on the needs of the community. Figure 1 shows how the planned Bristol City Leap investment of £631m is profiled over the Initial Business Plan time period.

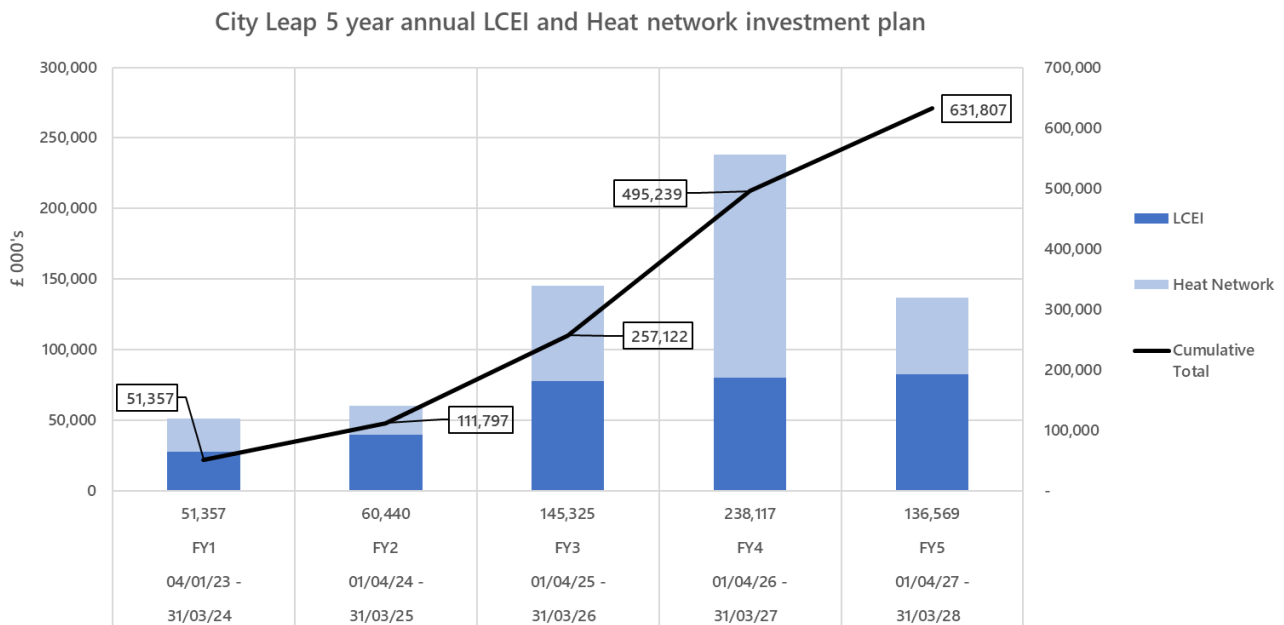


Figure 1. Bristol City Leap IBP Low Carbon Energy Infrastructure (LCEI) investment plan profile aligned to a community centric delivery

Plan for Capital investment delivered at achievable levels in years 1 and 2 to:

- Focus on the Council operational buildings to achieve 2025 neutrality target.
- Deliver decarbonisation programmes in the Council's social housing to the maximum extent possible.
- Enable local supply chain development to deliver ambitious year 3, 4 and 5 capital investment plans.
- Complete necessary consultations and planning for strategic heat main.
- Complete necessary consultations and planning for large scale renewables.

Plan for Capital investment ramped up in years 3, 4 and 5:

- Ramp up in social housing and private residential properties prioritising homes in most need of investment.
- Development of the Strategic Heat Main and wind generation developing an end-to-end solution for the decarbonisation of heat to significantly pave the way towards carbon neutrality of Bristol by 2030.

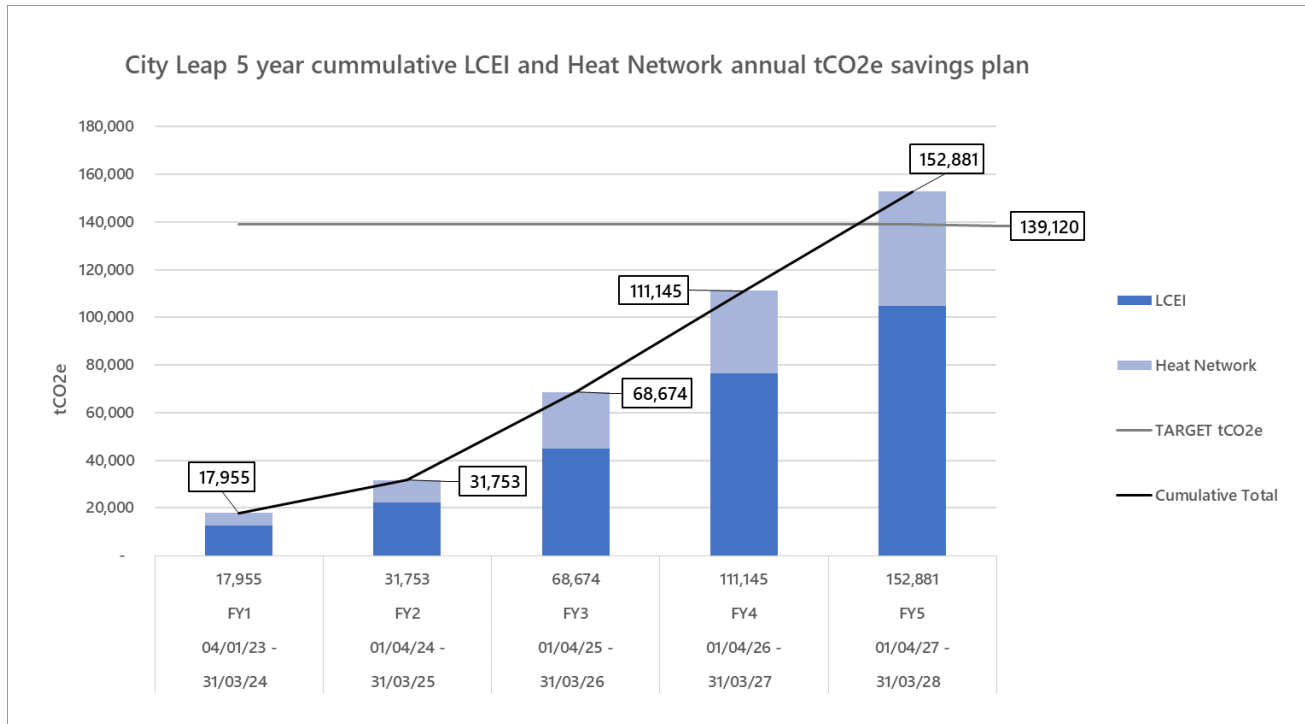


Figure 2. City Leap IBP annual profile of cumulative tCO₂e saved exceeding the contractual KPI by c13k tCO₂e

The LCEI projects major on retrofit solutions designed to tackle decarbonisation in the existing built environment prioritising properties where efforts will have the most positive impact on decarbonisation.

- Targeting energy efficiency and decarbonisation measures in poorly insulated Bristol buildings heated with carbon intensive energy, i.e. natural gas or oil, will yield early and immediate decarbonisation results.
- LCEI is relatively low capital investment per building enabling rapid delivery models and achievement of decarbonisation results as well as insulating homes and enabling, where appropriate, the longer-term option to connect to the heat network once the local networks are sufficiently developed.
- Ambitious LCEI delivery supported by increased planned spend in the Housing Revenue Account (HRA) (identified post bid submission), matched with Social Housing Decarbonisation Funds (SHDF) and a continuing programme of private residential funding such as the Home Upgrade Grant Scheme (HUGS) for 'Low income' households and competitively priced, quality delivery solutions with financing options for the 'Able to pay' market, will be the foundation upon which local green jobs will be created and carbon saving performance accelerated.
- Heat networks carbon savings will increase significantly over time as the carbon content of heat decreases (driven by new investment in low carbon heat sources and the phasing out of gas) and heat demand connected to the heat network increases as new connections are made. There is significant upfront investment during the initial business plan period to secure later substantial carbon savings, addressing the challenge of decarbonising heat in buildings over the medium to long term.

Near Term Projects and Goals

The Council's Operational Estate

- Working with the Council's Property Service to develop a decarbonisation strategy for the Council's operational estate for approval by the Council's Cabinet during 2023.
- This strategy will seek to utilise and leverage the decarbonisation funding contained within the General Fund budget. Utilisation is dependent upon further approval by the Council's Cabinet.

The Council's Social Housing

- Working with the Council's Housing & Landlord Services team to review options and develop a decarbonisation strategy for the Council's social housing stock for approval by the Council's Cabinet during 2023.
- This strategy will seek to utilise and leverage the decarbonisation funding contained within the HRA budget, however this utilisation is dependent upon further approval by the Council's Cabinet.

Private Housing *in Bristol*

- Funded by the Home Upgrades Grant Scheme (HUGS), Bristol City Leap will identify and qualify 158 'low income' households to deliver c£2.8m of insulation, windows, heat pumps, solar panels and carry out associated preparation and remedial works.
- Leveraging the additional delivery capability of Bristol City Leap, BCC will apply for a further c£10m of HUGS grant funding, and will submit further applications in due course, to continue to provide support to similar households in Bristol.

Schools and Education Centres *in Bristol*

- Partially funded by the Public Sector Decarbonisation Scheme (PSDS) and match funded by BCC, the City Leap Energy Partnership will provide c£1.4m of low carbon heating solutions to a school and study centre delivering low carbon technology.
- Survey a further c50 schools, libraries and other public buildings to identify further opportunities for decarbonisation and energy bill reductions.

Renewable Generation and Resilience

- Identify opportunities for large scale renewable generation in both the private and public sectors to replace the use of high carbon-based power generation with carbon free renewable sources such as wind and solar.

Heat Network

- Operate the heat network to provide excellent service to customers at a fair price
- Continued build out and expansion of the existing heat networks adding around 30 new connections
- Development of new network areas including design concepts for Spike Island and Frome Gateway
- Undertake design work and begin construction of the Temple Network including the first Energy centre
- Develop the concept design, consenting approach and confirm viability for the Strategic Heat Main, including close dialogue with anchor customers on the potential route

Low Carbon Energy Infrastructure (LCEI) Plan

In general terms, the LCEI plan includes decarbonisation works relating to:

- Buildings and associated building infrastructure after the meter for both existing and new buildings, including all local metering and controls.
- Renewable generation and energy storage infrastructure before the meter, typically wind, solar battery assets, however, includes all other generation technologies.
- Private distribution networks and microgrid assets, not included in the Heat Network plan, and associated metering and controls.
- Smart energy systems for control, balance and optimisation of all assets within the LCEI plan and strategic interfaces with assets within the heat network.

Any goals referenced in this Business Plan (including charts) which are in excess of the committed KPIs are aspirational and not binding commitments.

Figure 3 illustrates the planned LCEI investment in the five market segments in each year of the Initial Business Plan.

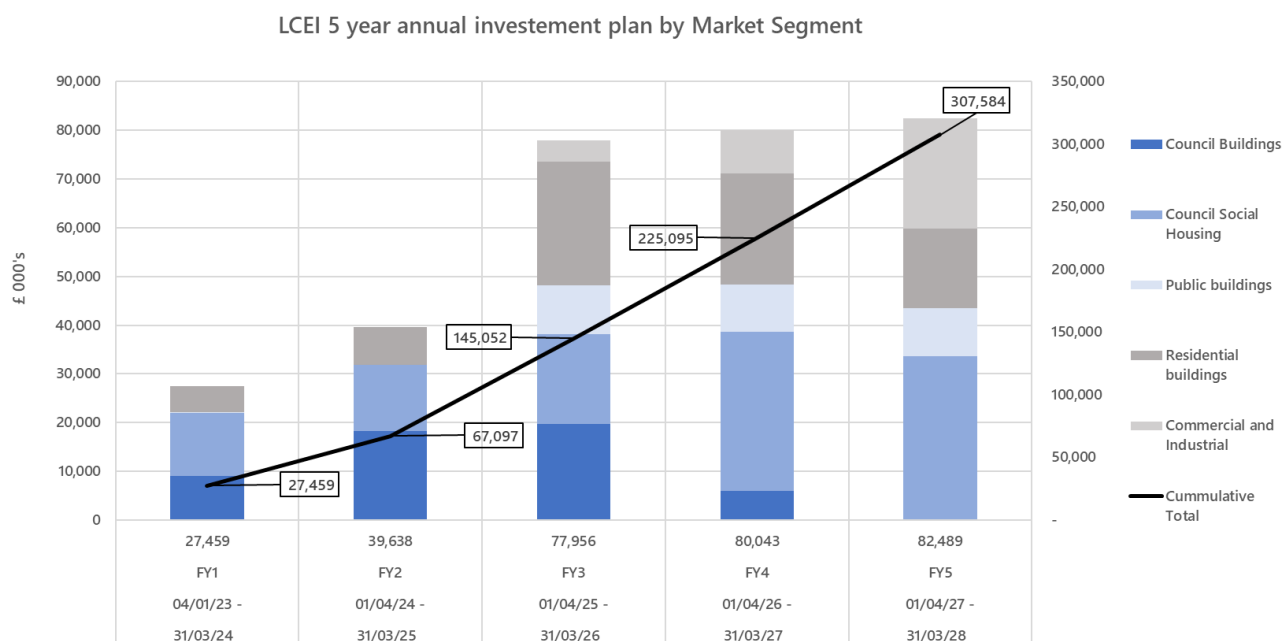


Figure 3. LCEI IBP annual investment plan by market segment annual profile - £307.5m LCEI investment in year 5

LCEI Key market investment plan benefits

- Early focus on the Council's operational estate to achieve net zero decarbonisation target in 2025.
- Consistent increase in investment in the Council's social housing prioritising low EPC rated homes.
- Increasing investment in private homes, prioritising 'low income' households.
- Significantly increasing overall delivery to catalyse local supply chain and skills training.
- Marketing plan positioning Bristol City Leap as first choice 'C&I' decarbonisation partner.

City Leap Energy Partnership has committed to preparing a rolling five-year business plan annually providing forward visibility of the planned technologies and associated scale of delivery. A summary business plan will be published on the Bristol City Leap website and shared with local enterprises and organisations. This is aimed to build confidence for the local supply chain, enabling them to invest and develop capability within their own operations, thus providing resources and creating job opportunities to drive the local green economy whilst supporting the decarbonisation objectives of Bristol City Leap.

Figure 4 below illustrates the LCEI investment plan in each technology group in each year of the Initial Business Plan providing invaluable insights to local enterprises and organisations.

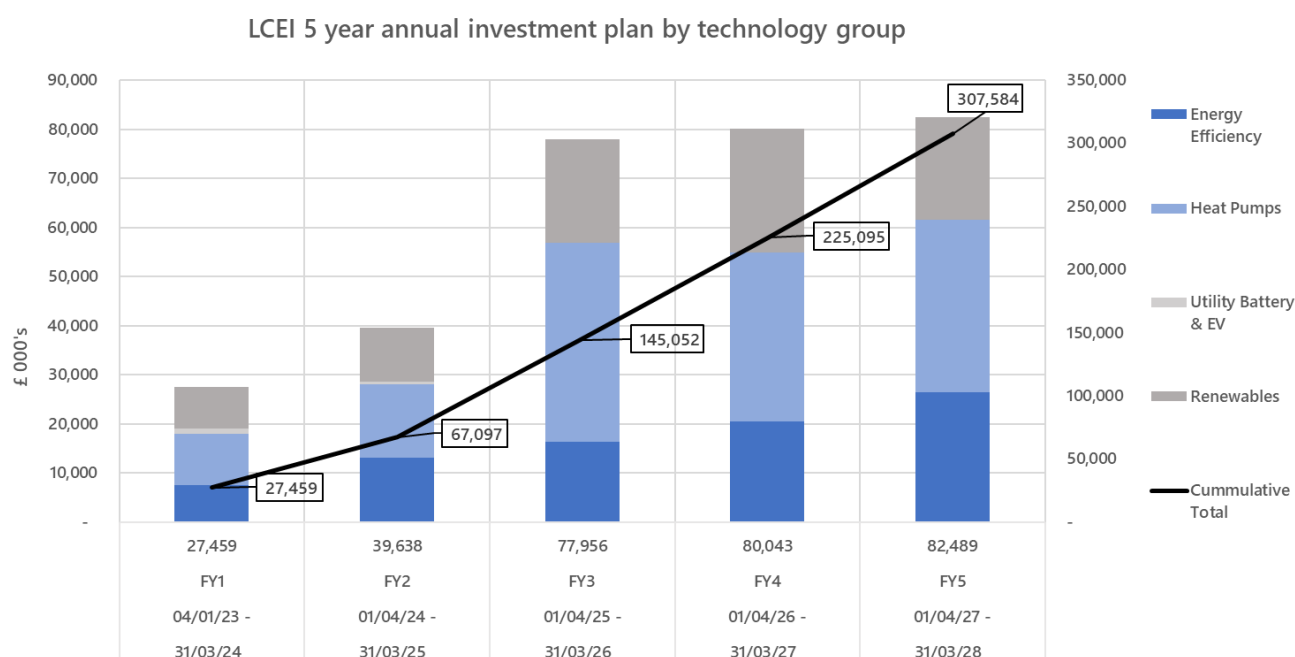


Figure 4. LCEI IBP annual investment plan by technology group annual profile - £307.5m LCEI investment in 5 years

LCEI Key technology investment plan benefits

- c£135.5m heat pump investment for heat decarbonisation outside heat network zone.
- c£83.7m energy efficiency investment to reduce demand and optimise electrification of heat solutions.
- c£86.7m investment developing 164MW of renewable generation in the LCEI plan.
- c158GWh of energy generated from renewable assets during the initial business plan period.
- Campaign of key investment awareness to catalyse local green economy and resources.

Heat Networks

Vattenfall is delighted to be working in close partnership with Ameresco and BCC on the delivery of heat networks for Bristol City Leap. Within the Initial Business Plan (IBP) time period, City Leap will enable the delivery of 120GWh of zero carbon heat to customers in Bristol, channelling over £200m of investment into high quality energy infrastructure across the city.

BCC has created a robust set of heat networks forming a foundation from which to extend the networks, securing new connections to build a city-wide fossil free heat network. We are looking forward to engaging with our partners, the local Community, national government and supply chain providers to increase the pace and scale of district heating across Bristol, create jobs and deliver social value, and to achieve our goal of decarbonising the network by 2030.

Objectives in this Business Plan Relating to Heat Networks

During the Initial Business Planning period, the business will focus on achieving the following objectives:

1. Provide excellent services to existing customers at an affordable price.
2. Decarbonise and grow the existing networks established by BCC.
3. Establish and grow new networks across the city.
4. Develop the market conditions for transformative growth in the market.
5. Ensure that the Heat Network contributes to broader City Leap objectives.

Growth

Bristol City Leap has set ambitious growth targets to deliver extensive City-wide, low carbon heat networks. This ambition underpins the key KPI contractual commitments by the Strategic Partner, Ameresco.

The key KPI for the heat network is the Heat Network Growth KPI, which requires at least 10GWh of demand to be added to the heat network every year for the next twenty years (as an average since the start of the concession).

In addition to this, the heat networks will support Bristol City Leap to deliver the following KPIs alongside the delivery of LCEI activity:

1. The Carbon Saving KPI: heat network contribution in gCO₂ saved per year by connecting existing buildings to the heat network and displacing higher carbon intensity forms of heating.
2. The Zero Carbon Generation capacity KPI: heat network contribution in MW per year by installing zero carbon heat generation plant.
3. The Zero Carbon Energy Generation KPI: heat network contribution in GWh per year of heat produced from zero carbon generation plant.

These KPIs incentivise new heat network connections to be made to decarbonise buildings identified in feasibility work undertaken to date by the Council. In the event these connections cannot be made, alternative connections with equivalent demand will be identified to expand the network at or above the agreed rate. The feasibility work shows a total in excess of 100 connections over the Initial Business Plan time period to March 2028 with a total demand of over 120 GWh.

We will develop and expand the heat network in Bristol to the greatest extent possible whilst ensuring that it offers fair value to customers and is in line with overall decarbonisation plans for the city, i.e. where heat networks are the most appropriate solution for decarbonising heat for a given building or area.

Within the defined heat networks priority area in Bristol and wherever technically and commercially viable, we will seek to connect:

- New developments that are required to connect through the Planning system.
- Existing buildings that request to connect to the network.

Our approach to this is built on the work carried out to date by BCC, focussed on the eight heat network areas identified in feasibility work, several of which are already operational or under construction. Where possible, we envisage that these heat network areas will be interconnected to create one City-wide Bristol Heat Network.

We will also seek opportunities for “islanded” heat networks, i.e. not connected to the main Bristol Heat Network, in areas of the City that have clusters of high heat demand or large new developments. Such networks are not currently included explicitly in this business plan but will be included in future refreshes. These opportunities will be coordinated with Ameresco to ensure alignment with City Leap as a whole.

Decarbonisation of the Heat Networks

While growing the heat network, we will also decarbonise it by ensuring that all new generating capacity is low carbon. We have committed to install no new gas-fired assets and to phase out the existing gas-fired assets by 2030 at the latest.

This will be underpinned by specific KPIs on the carbon content of heat (gCO_2/kWh) which will be reduced over time to $60 \text{ gCO}_2/\text{kWh}$ by 2030 and $40 \text{ gCO}_2/\text{kWh}$ by 2040.

Our current preference is to utilise low carbon heat from Energy from Waste (EfW) plants that would otherwise be vented into the atmosphere. We will do this by constructing a new Strategic Heat Main (SHM) that will run from Avonmouth into Bristol City Centre and connecting local energy centres containing heat pumps and e-boilers.

The SHM is a large district heating pipe, over 20km long, with an indicative route shown in 5 below. As well as connecting the EfW plants to the city centre heat networks, it would connect additional loads along the route in South Gloucestershire and North Bristol and enable further low carbon heat sources to be connected in future from outside the city centre.

The feasibility of the SHM has been investigated previously by South Gloucestershire Council and BCC. Vattenfall will build on this work and develop the concept further during the Initial Business Plan period.

If proven viable, further detail on the SHM will be included in future City Leap business plans. If the SHM is not viable, an alternative approach utilising zero carbon heat generation such as heat pumps will be adopted.

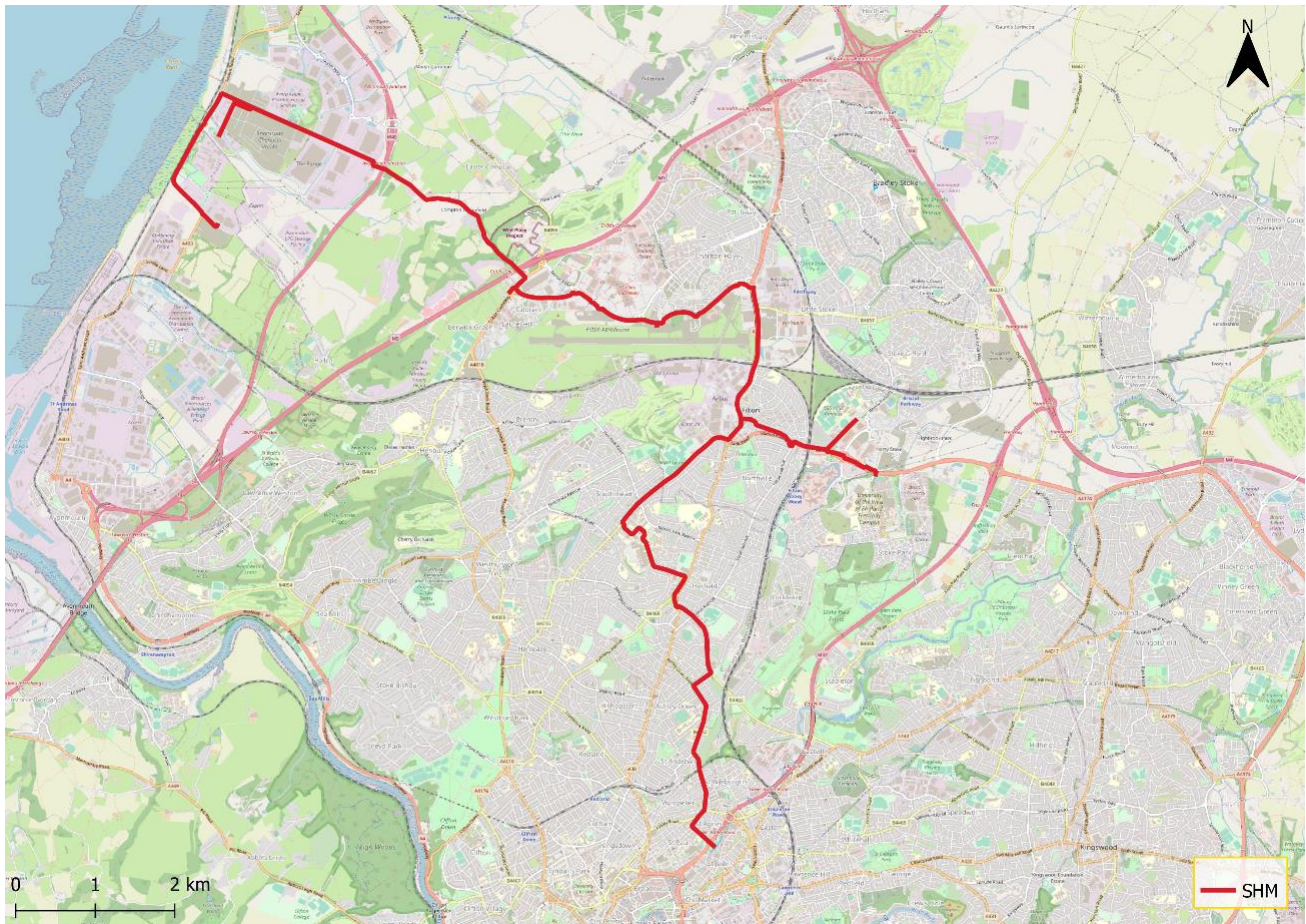


Figure 5. Indicative Strategic Heat Main route creating a long-term decarbonisation asset

Vattenfall will develop and expand the heat network in Bristol to the greatest extent possible whilst ensuring that it offers value to customers and is in line with overall decarbonisation plans for the city – in other words where heat networks are the most appropriate solution for decarbonising heat for a given building or area.

In practice we will seek to connect new and existing buildings, within the defined Heat Priority Area in Bristol (Figure 6), and wherever technically and commercially viable. Bristol Planning Policy BCS14 expects new developments in the heat priority area to connect to a heat network where technically and financially feasible or where a heat network is not being installed to be ‘District Heating ready’ to enable connection at a later date.

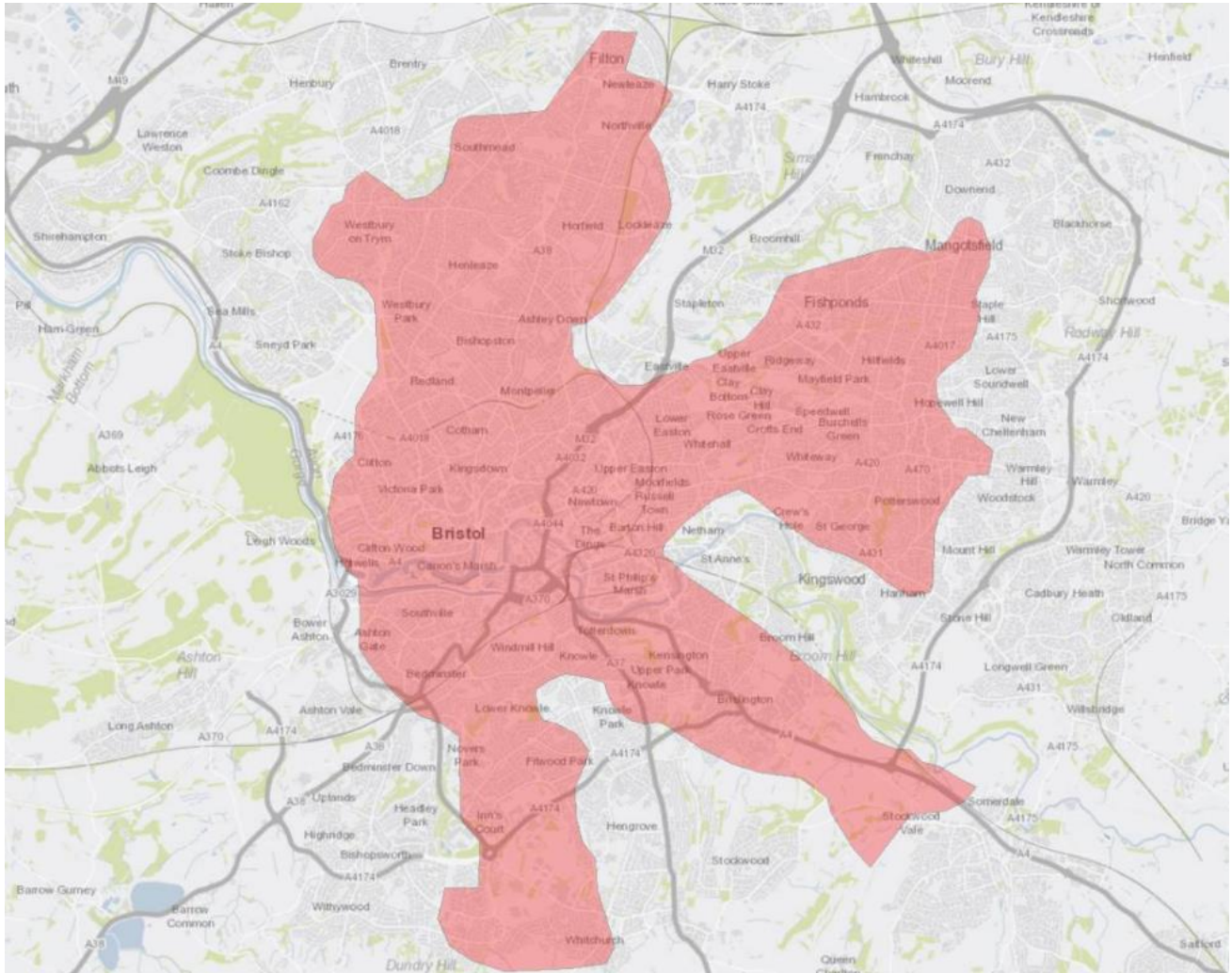


Figure 6. Bristol's Heat Priority Area which has been developed through feasibility work undertaken by BCC.

In early 2023, we will own and operate two City centre heat networks at Redcliff and Old Market, with a third under construction in Bedminster. These networks supply over 15GWh/year of heat across 14 operational connections.

In addition, BCC has carried out feasibility studies for further networks in Temple, City Centre, Spike Island, Frome Gateway, Ashton Gate and has identified and commenced discussions with several prospective customers in these areas.

We intend to develop and expand all these heat network areas and, ultimately, to interconnect them to form a single City-wide Bristol Heat Network.

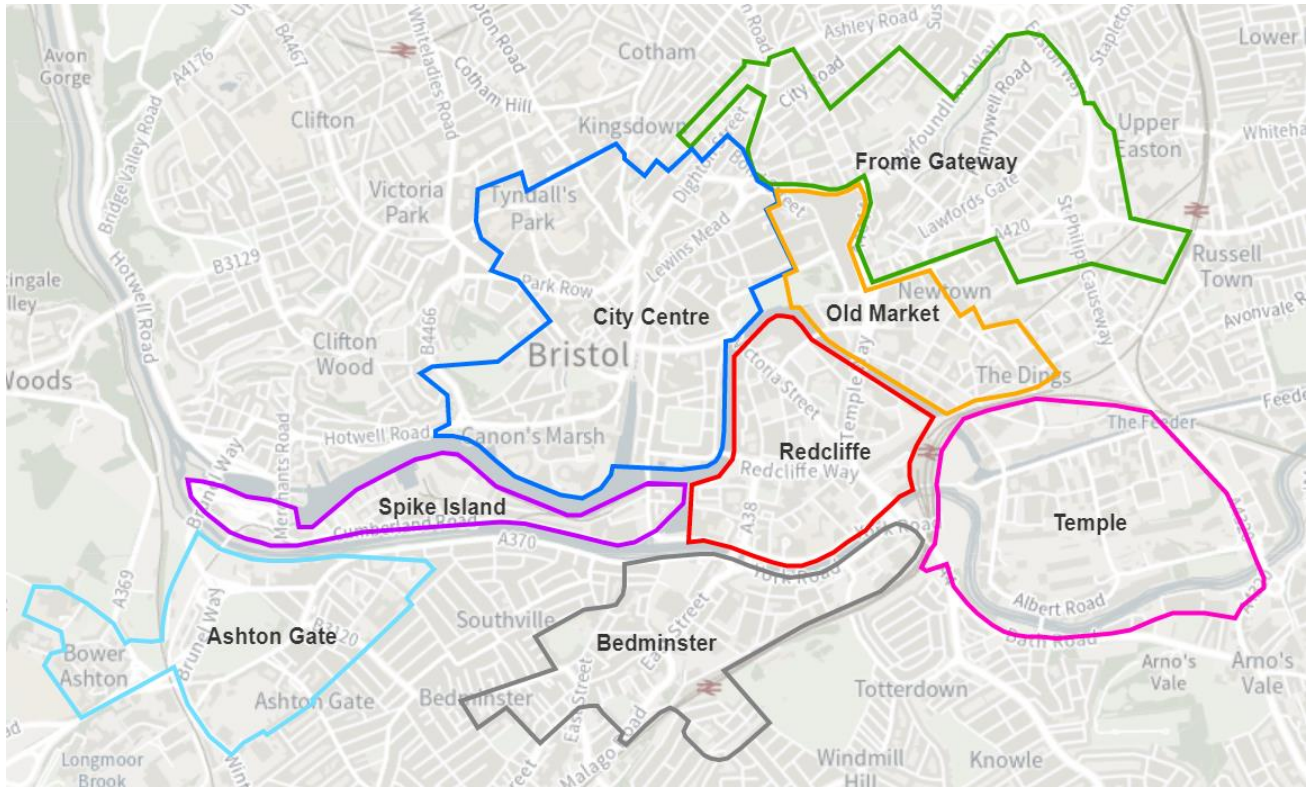


Figure 7. Map showing areas for heat networks to be delivered and expanded under this Initial Business Plan

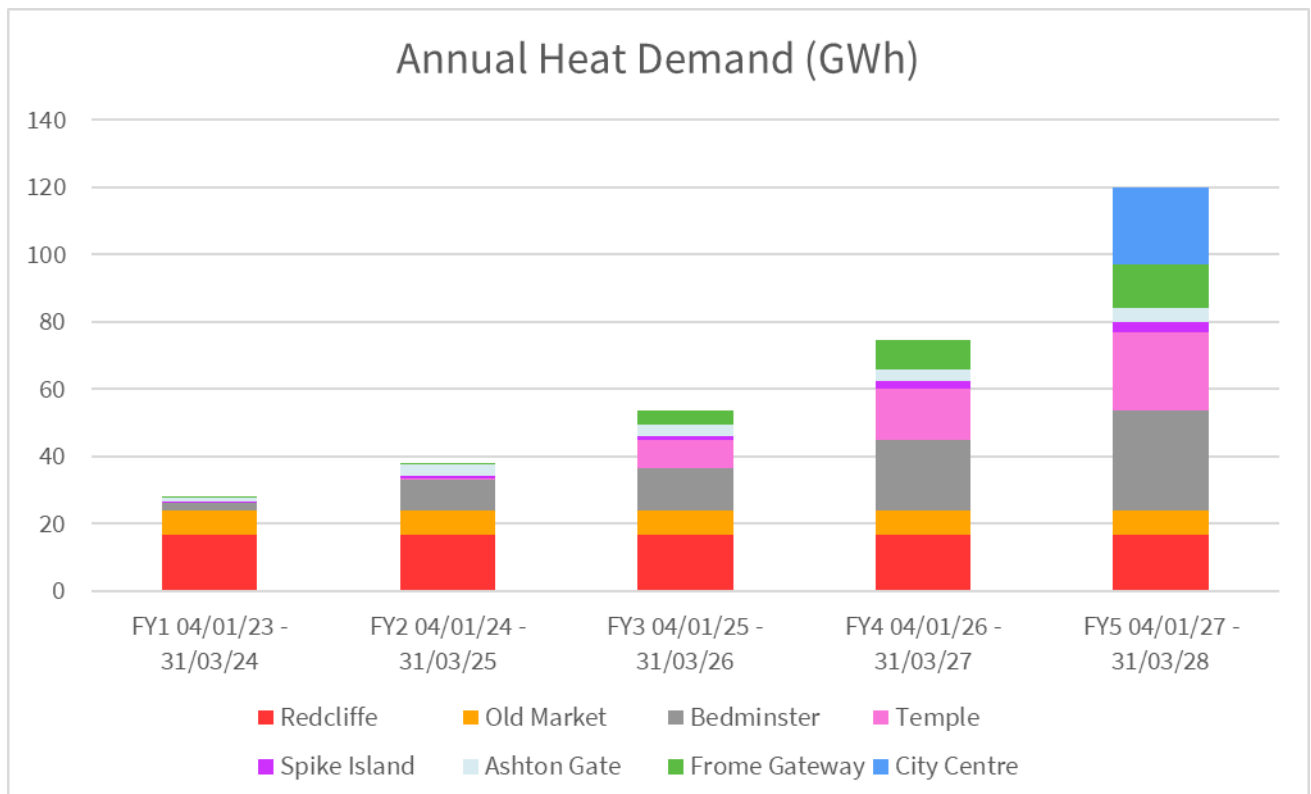


Figure 8. Modelled heat demand build up over Initial Business Plan period

We will remain open to further opportunities to develop heat networks in Bristol outside these areas, whether physically connected to each other or not.

Our strategy to deliver the vision for heat networks in Bristol includes the following elements.

Building on the Work Done by BCC to Date

BCC has done considerable work to develop the Heat Network to date and to plan for the growth of the Heat Network in the City. We intend to use that work and broadly follow the same approach. Key to this is the successful integration of the BCC heat networks team within Bristol City Leap to benefit from the institutional memory and knowledge of the city.

Run the Existing Networks Well

Ensuring the existing Heat Networks are run well and that a smooth transition is achieved will be essential to maintaining the reputation of the Bristol Heat Network. This means avoiding outages, ensuring excellent customer service, and demonstrating that we will grow and decarbonise the Heat Network from some early wins.

Build a Supportive Policy Environment

Bristol City Leap is well positioned to use the Bristol Heat Network as an exemplar project to inform and influence policy development, particularly, UK Government plans to introduce statutory undertaker rights for heat network operators and heat zoning to help drive growth in the heat network.

Statutory undertaker rights would bring heat networks in line with other utilities, providing land and access rights, permitted development rights and street work permits.

Heat zoning would identify and designate areas where heat networks are the lowest cost low carbon solution for decarbonising heating. Measures would be introduced to facilitate the development and delivery of heat networks in the designated zones.

Develop the Strategic Heat Main

Work has already begun on developing the Strategic Heat Main as the primary route to decarbonise the heat network by 2030. At the same time, we will be developing low carbon heat sources in the City to ensure that carbon is reduced in the short term.

Set a Strong Health and Safety Performance and Culture

We will establish a high performing health and safety culture within the team and across our network of partners to ensure a safe working environment.

Service

Vattenfall will provide heat reliably, with excellent standards of service, at an affordable price.

This is underpinned by contractual commitments covering:

Heat Trust Accreditation

It is expected that retail of heat will become a regulated activity, under Ofgem, during the period of this business plan. We are supportive of this step, to protect customers and enhance the maturity of the market.

Prior to regulatory consumer protection, we will register applicable networks with the Heat Trust, an independent, non-profit consumer champion for heat networks that holds suppliers to account for the benefit of everyone involved. In some cases, for example when domestic customers are billed by a third party such as the building owner, we will work with those third parties to uphold standards to that level.

Heat Availability

We will provide a robust and resilient supply of heat to buildings. In the event of outages, vulnerable customers will be provided with alternative heat supply to maintain their wellbeing as soon as possible. We will also aim to restore supplies for all customers as quickly as we can. In all cases we will meet or exceed the minimum requirements under the Heat Trust scheme and any future regulation.

Fair and Transparent Pricing

Through the City Leap Partnership, we are committed to maintaining a fair, transparent and clear pricing structure for all our customers. To clearly demonstrate value for money, we will maintain a low carbon 'counterfactual' that shows customers what they would otherwise be paying for a similar service to supply and maintain heat.

The heat network tariffs will be clearly communicated on our website along with appropriate low carbon counterfactual information, and any changes will be communicated to customers with no less than 31 days written notice.

It is recognised by all parties that this partnership is being launched at a volatile time in global energy markets. That backdrop means that price fluctuations are anticipated. Our approach is to procure commodities and run assets in a manner that maintains fair value for customers and protects them from short term wholesale price shocks.

Alternative Routes to Fund Projects

Introduction

There are several commercial models which may be attractive to BCC and other customers from a performance risk and funding strategy perspective.

The Energy as a Service (EaaS) model may be well suited for large building infrastructure projects within the Council's operational estate, and other potential Commercial and Industrial (C&I) customers, as they can support multiple types of efficiency measures under a single contract. These models generally offer long-term stability over energy costs and carbon savings which is particularly important in the current volatile energy climate.

During the lifetime of the agreement, Measurement and Verification (M&V) will be provided for the assets and is essential to ensure the assets are performing optimally and meeting their energy efficiency and low carbon goals.

The Energy as a Service (EaaS) Model

The EaaS commercial model assets are fully funded and owned by the Strategic Partner over the term of the contract. This includes the upfront project costs, asset procurement and installation.

BCC pays the Strategic Partner for service through fixed annual payments or on a pay-for-performance basis, as determined through the contract. The fixed annual payment arrangement is pre-determined as the "deemed savings" of the project, providing stability for BCC's cost over the long term, while the pay-for-performance arrangement is measured through M&V and represents the realised savings of the project. A similar model, the Power Purchase Agreement (PPA), could also be utilised in which the cost is recovered on a kWh metered basis.

Reverse Auction Opportunity for Able-To-Pay Residences

Within the residential target group, there may be a reverse auction opportunity with the able-to-pay market for residential solar PV. A reverse auction is intended to drive up the volume demand as the City Leap Energy Partnership brand can provide comfort to homeowners on the quality of procurement and installation. Further, there are opportunities of economies of scale, offering better pricing to homeowners.

Should the homeowner not want to own the assets and incur its performance risk, there are commercial models available, such as a Power Purchase Agreement (PPA), which would transfer the asset and risk to the City Leap Energy Partnership entity responsible for supplying energy at an agreed competitive cost.

Other innovative models can be explored to maximise the generation of the able-to-pay market's solar PV including hybrid solutions, where an oversized solar PV could be installed along with a battery to sell the excess generated energy to other users or the Council.

Communications & Engagement

Our communications strategy is intended to support the Bristol City Leap business plan by creating the optimal environment to develop and deliver our decarbonisation strategy through maintaining awareness of Bristol City Leap to Bristolians.

The communication plan will highlight the core benefits of Bristol City Leap to the diverse, segmented audiences within the city, supporting the principles of a just transition to the low carbon economy.

Awareness of Bristol City Leap will be maintained throughout the partnership, highlighting the achievements and successes of the programme.

All our communications will be clear and transparent with a strong call to action to Bristol's residents, communities, and businesses to how they can become involved and benefit from the Bristol City Leap activities.

We intend to maintain existing relationships and build new ones with stakeholders at all levels across the city, including our City Partners, to support the delivery of City Leap objectives, and ensuring that all groups are aware of the opportunities for involvement in the future City Leap Energy Partnership.

An awareness campaign will be managed by the City Leap Energy Partnership, supported by a local, Bristol based PR company. The communications and public affairs activity will be proactive locally, nationally, and internationally highlighting the lessons of delivering a city-scale decarbonisation programme.

Initial Audiences for Bristol City Leap

Bristol City Leap's audience has been broken down into several identified groups with specific targeted outcomes from the communications.

Audience	Outcomes
All residents in the city	<ul style="list-style-type: none"> Awareness of City Leap and its objectives Buy in to City Leap and the need to decarbonise Bristol Acceptance of disruption and understanding of the benefits and mitigation Understanding how to access services – these communications will be segmented by housing type and location to address residents' needs and solution availability (see below)
Social housing residents	<ul style="list-style-type: none"> Appreciation of benefits of proposed improvements to housing, including the reduction of their energy bills to address fuel poverty and improve quality of life and wellbeing through warmer, dryer homes Understanding of the timescales and their role in the City Leap transformation
Private tenants	<ul style="list-style-type: none"> As above, plus awareness of the Minimum Energy Efficiency Standards

Owner occupier	<ul style="list-style-type: none"> Desire to decarbonise their home and participate in City Leap; this is a diverse group and as such a variety of messages will be employed, emphasising the lifestyle benefits, economic case (including to the value of the house), improved comfort as well as pride in their home, city and the contribution they make to combat climate change.
Residents affected by City Leap projects	<ul style="list-style-type: none"> Awareness of the project(s), timescales, disruption and benefits Ability to participate in consultation where appropriate and influence planning Full understanding of the changes for them and their families Proportion to become advocates for decarbonisation and City Leap
Prospective customers: building owners / operators (residential and commercial), developers	<ul style="list-style-type: none"> Desire to decarbonise their buildings. Awareness of the propositions available to them through City Leap, tailored to zoning approach (e.g., heat network or heat pumps). Proportion to become advocates for decarbonisation and City Leap. Appreciation of the Minimum Energy Efficiency Standard, deadline of 2030 for EPC “C” rating and how City Leap can help
Political	<ul style="list-style-type: none"> Ensure that City Leap engages with elected representatives and political leadership at a local, regional and national level to ensure a strong understanding of new developments and opportunities to shape policy, build advocacy and collaborate.
Area Community Groups	<ul style="list-style-type: none"> Understand how to access City Leap to support their own objectives, leading to advocacy and referrals
Community groups	<ul style="list-style-type: none"> Win the support of groups such as Bristol Energy Network, Bristol Green Capital Partnership (BGCP) and Action Net Zero (ANZ), ensuring they understand the City Leap objectives and high-level programme Identify opportunities and make referrals Ability to participate in decision making and project delivery Access support to develop their own decarbonisation projects
Local supply chain	<ul style="list-style-type: none"> Awareness of the City Leap pipeline, procurement requirements and how to join the suppliers list Highlight opportunities to supply to City Leap projects and services through forums such as Business West
City Leap partners	<ul style="list-style-type: none"> Advocacy for City Leap Ability to participate in decision making and project delivery Identify opportunities and make referrals
Innovators	<ul style="list-style-type: none"> Understanding of needs of City Leap that they can respond to, and knowledge of how to approach City Leap with ideas
Special interest groups	<ul style="list-style-type: none"> Ensure City Leap enhances the wider Bristol City community through alignment with the missions of groups such as WECIL, the Bristol Disability Equality Forum, the Black South West Network and many other similar groups.

Table 2. Segmentation of the City Leap audiences with specific communications outcomes.

Marketing and Sales

As well as keeping Bristol informed through our communications and engagement activity, Bristol City Leap will also need to ensure that residents and businesses have access to the various offers that will be available through the delivery of our projects.

Marketing and sales activity will be underpinned by an integrated sales strategy which identifies various market segments and the decarbonisation initiatives available to them. Sales activity will not be required for projects relating the Council's estate and social housing due to close collaboration with BCC service areas and the Council's City Leap Client Function.

A Salesforce based Customer Relationship Management (CRM) System will be employed to support and track the sales process as well as provide valuable management information on the sales pipeline looking forward.

Bristol City Leap's sales strategy will be established to cover the following:

- Large scale renewables - working with local landowners to identify opportunities to deliver large scale renewable projects such as wind turbines and ground mounted solar PV arrays on privately owned land.
- Public sector - continue engagement with the City's Universities and Hospitals to understand how City Leap can best help and support their decarbonisation journeys.
- Residential (owner occupied and private rented) - Seek to maximise grant funding opportunities in collaboration with partners to deliver schemes targeting this sector.
- The Industrial and Commercial sector (I&C) - Commence engagement with this sector in 2023 and scale up activity over the duration of the concession.

Social Value

The City Leap Energy Partnership is committed to delivering £61 million of social value over the first five years which will be verified through the [Social Value Portal's](#) National Themes, Outcomes and Measures (TOMS) framework. Endorsed by the Local Government Association (LGA), TOMS is used by many public sector organisations across the UK.

Social Value will be reported quarterly through the Social Value Portal. There are two KPI reporting dates, at the end of year three and year five, for social value as set out in *Table 3* below.

Social Value KPI	Unit	31st March 2026	31st March 2028	Total in first 5 years
Social Value	£	£22,737,000	£38,798,000	£61,535,00

Table 3. Committed City Leap social value target KPIs.

The majority of this is expected to be achieved through ensuring that over £50 million is spent with the local supply chain, including over £7 million with the micro, small and medium enterprise (MSME) sector. Also included in these figures is a commitment to a minimum of 410 Bristolians being employed on various Bristol City Leap projects. Everyone working on Bristol City Leap, including the wider supply chain, will be paid at least the 'Real Living Wage'. The City Leap Energy Partnership will sign the Bristol Equality Charter and commit to paying the Real Living Wage. We will also make it a requirement of our supply chain to do the same as a condition of being part of the City Leap delivery team. Our community outreach programme will include encouraging both young and unemployed people into gainful jobs through mentoring support, schools / college visits, work placements and over 700 weeks of apprenticeships. Schools' visits will highlight the many opportunities for quality employment in the "green economy".

Bristol City Leap will sign up to government's Disability Confident scheme and will work with the Council's Skills and Employment team, specifically through City initiatives including:

- The One City Economy and Skills Board.
- Building Bristol.
- On site Bristol.
- One Front Door.
- Bristol Works Programme.

Bristol City Leap is engaged with Business West on multiple levels including:

- Engagement with their members to become part of the City Leap supply chain.
- Supporting their members on their carbon reduction journey.
- Working with their innovation initiative in relation to low carbon technologies.
- Supporting their development of the local skills plan.

The jobs and careers created by Bristol City Leap will not be exclusively STEM based engineering jobs. There will be a wide range of range of good quality long term opportunities for low carbon careers and jobs, including project management, commercial and finance, business development and administration.

Additional Social Value Commitments

The City Leap Energy Partnership is committed above and beyond the Social Value Portal commitments to supporting several other initiatives including:

- A Community Energy Development Fund (£1.5 million in the first five years) will be established to support community energy projects get to financial close.
- A further £500,000 R&D fund will support Bristol's innovation sector in developing low carbon technologies.
- Create a Community Benefit Fund based on the level of heat sales, match funded by Ameresco, which is estimated to generate a value of £2.8 million over the lifetime of the partnership.
- Crowd funding of up to 10% of the capital investment requirements of non-heat network projects will be made available to Bristolians as an opportunity to invest an estimated £6m in the success of Bristol City Leap.
- Production of Bristol City Leap Equalities Diversity and Inclusivity (EDI) Strategy, the publication of an annual EDI Impact Report and the commitment to several EDI-related KPIs.
- Supporting Bristol Green Capital Partnership and their Climate Action Programme with a minimum of £30,000 per annum.
- Action Net Zero, to work with them on their initiatives focusing on decarbonising the built environment and electric vehicle charging infrastructure with £30,000 per annum.
- Bristol Grass Roots Communities, with financial support of £6,500 a year with additional mentoring support for young people from lower socio-economic areas of the City.
- The creation of a tranquil and educational place to engage with Bristolians on the benefits of biodiversity and decarbonisation with a grant of £5,000 per year.
- Engagement with the Bristol Disability Forum, recognising that c42,000 households in Bristol have at least one disabled resident, to ensure they are not excluded from City Leap opportunities.
- We will work with the Centre for Sustainable Energy (CSE) and other partners to support the development and finalisation of the No Cold Homes strategy to support a reduction in fuel poverty in Bristol.

Skills and Employment

Of the 1,000 jobs committed to through the Social Value Portal, 410 jobs will be City of Bristol-based (within BS1-BS16 postcodes). Using a simple metric of 1 FTE for every £75,000 Capital employed it is anticipated that a significant number of quality jobs will be created by the activity undertaken by City Leap. Heat network projects will contribute substantially to Bristol City Leap's social value targets, principally through significant infrastructure investment that will drive spend in the local supply chain and create well-paid local jobs. We will work closely in partnership with the supply chain to help them grow with us and enable the delivery of real local economic benefits.

We will work with Bristol's Higher and Further Education colleges to ensure that the right training is in place to be able to support this demand in the jobs market. One of the advantages of the 20-year length of the concession is Bristol City Leap's long-term view, meaning that this job demand will not be at the mercy of short-term grant funding initiatives, but part of a long-term strategy. This in turn will give confidence to the local supply chain that they can invest in growing their businesses because the demand will be there, and the Colleges in turn can invest in developing the required training.

As part of the school and college outreach programme we will hold recruitment events, highlighting the range of opportunities of good quality long term employment in the green economy. This will also help match the new workforce to the appropriate training courses and potential employers.

Thank You

Thank you for reading our Initial Business Plan.

Bristol City Leap is a world first, game-changing approach towards decarbonisation at City-scale. The City Leap Energy Partnership is a twenty-year joint venture between BCC and Ameresco Ltd which will enable the delivery of over £1 billion of investment into Bristol's energy system. Put simply, this means a massive boost in the amount of renewable energy and decarbonised heat powering our city, which in turn means a cleaner, greener and healthier place to live, learn, work and play.

This Initial Business Plan was published in December 2022 to support the formation and launch of the City Leap Energy Partnership. This is a rolling five-year plan which will be updated on an annual basis. As part of the annual update of the business plan, Bristol City Leap is committed to consulting with residents, City Partners, Community Energy Groups, businesses, and other key stakeholders. Bristol City Leap's next Annual Business Plan is expected to be released in the second quarter (Q2) of 2024.

A summary of the Annual Business Plan will be published on the [Bristol City Leap website](https://www.bristolcityleap.co.uk) alongside other associated data such as progress against the Key Performance Indicators (KPIs) and individual social value metrics such as number of jobs created.

Stay up to date with the latest projects and developments on the City Leap Energy Partnership website: www.bristolcityleap.co.uk or via our social media channels below.



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