Public Document Pack

Overview and Scrutiny Management Board

Supplementary Agenda

Date: Monday, 2 March 2020

Time: 5.00 pm

Venue: The Chamber - City Hall, College Green, Bristol, BS1 5TR

8. Bristol Heat Networks

(Pages 2 - 54)

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Date: Tuesday, 25 February 2020

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Overview and Scrutiny Management Board

2nd March 2020

Report of: Paul Barker, Energy Infrastructure Manager

Title: Bristol Heat Networks – Establishment of 2 Special Purpose Vehicles (SPVs)

Ward: City wide

Recommendation

That the Overview and Scrutiny Management Board consider and comment on the report which will go to Cabinet on the 3rd March 2020.

Summary

The purpose of the report is to seek Cabinet approval for the creation of Special Purpose Vehicle companies (SPV's) required to receive grant funding from the Heat Network Investment Project (HNIP), for the continued development of the Bristol Heat network programme.

Appendix A – Cabinet report and Business Case

Decision Pathway – Report Template

PURPOSE: Key decision

MEETING: Cabinet

DATE: 3rd March 2020

TITLE	**Bristol Heat Networks – Establishment of 2 Special Purpose Vehicles (SPVs)**	
Ward(s)	**All**	
Author: Paul Barker		**Job title: Energy Infrastructure Programme Manager**
Cabinet lead: Cllr Kye Dudd		**Executive Director lead: Stephen Peacock**
Proposal origin: *BCC Staff*		
Decision maker: Cabinet Member **Decision forum:** *Cabinet*		

Purpose of Report:
To seek approval for the creation of Special Purpose Vehicle companies (SPV's) required to receive grant funding from the Heat Network Investment Project (HNIP), for the continued development of the Bristol heat network programme.

The case for the continued development of heat networks has been made previously and in September 2019 Cabinet (see background documents) approved funding for the Old Market and Redcliffe Heat networks and support for the application for grant funding from HNIP. That Cabinet report noted the need for the creation of SPV's to hold HNIP grants.

The creation of the SPV's also facilitates the creation of a competitive heat market consistent with the City Leap heat strategy.

Evidence Base:
HNIP Grant Funding and the requirement to establish an SPV
Heat networks are central to achieving the Mayor's commitment to Bristol being a carbon neutral city by 2030 as well as helping to tackle fuel poverty by providing heat to residents at lower prices. However, as heat networks are relatively capital intensive, to deliver on these objectives requires the council to apply for appropriate grant funding when available.

The Energy Service has been successful in being awarded HNIP (Heat Network Investment Project) government grant funding for the Redcliffe heat network and the Old Market heat network of £10.2m in total. The grant funding will help deliver a financially viable heat network and support Bristol becoming a carbon neutral city by 2030.

BEIS (Business, Energy & Industry Strategy), the UK government Dept. responsible for the funding, require BCC to set-up a Special Purpose Vehicle (SPV – a limited company) prior to the City Council drawing down the funding. Any successful HNIP grant award will have the same requirement for funding to be drawn down by an SPV.

City Leap, competitive heat and Multiple SPVs
In order to ensure that residents of Bristol pay fair prices for the heat supplied by the district heating network, City Leap wishes to implement competitive heat retail and competitive heat generation across the heat network. The competitive heat commercial model is described in more detail in the Business Case Document in Appendix I (exempt).

There is now an opportunity to use the HNIP requirement to set up an SPV/s as the basis for setting up the first

example of the competitive heat model in action. The set up of the competitive heat model requires us to separate what would ordinarily be contained in one SPV into two SPVs: a 'Generation Company' and a 'Pipe Company'. For future successful HNIP grants we seek approval to establish further 'Generation Companies' around each generator, as required, on the same basis as the first.

Further financial details on these companies, their revenues, costs, operations, is contained in Appendix I (exempt).

The first two (2) SPV's will sit under Bristol Holdings Limited (BHL). BHL have been fully briefed on the new structure, and we continue to work with them on establishing the operational and governance aspects.

Considerations and conclusions with regard to the set-up, operation and eventual sale of the SPV's are highlighted in the below financial and legal sections and supported by opinions from the City Leap financial and legal advisors.

Cabinet Member / Officer Recommendations:
In accordance with Bristol City Council's Financial Regulations:

1. Authorise the Executive Director for Growth and Regeneration, in consultation with the Cabinet Member for Transport and Energy and the Green New Deal, the Cabinet Member for Finance, Governance and Performance the Chief Finance Officer to
   a) establish and operate two (2) special purpose vehicles in order to accept the HNIP capital grant funding and establish the competitive heat commercial model in action; and
   b) transfer to the SPVs the following heat network assets in line with HNIP grant funding applications:
      i. Redcliffe heat network Phase 2
      ii. Old Market heat network Phase 1

2. Authority is delegated to the Chief Finance Officer (S.151 Officer) in consultation with the Cabinet Member for Finance, Governance and Performance to transfer and agree the terms of the previously approved Prudential funding, to the SPVs, via onward lending loan agreement (in the region of £6.21m).

Corporate Strategy alignment:
1. This report supports the Key commitment to 'Keep Bristol on course to be run entirely on clean energy whilst improving our environment to ensure people enjoy cleaner air, cleaner streets and access to parks and green spaces.'

City Benefits:
1. Keep Bristol on course to be run entirely on clean energy by supporting the build out of low carbon heat networks
2. Improve our environment to ensure people enjoy cleaner air through supporting the further deployment of renewable heat generation.
3. Improve physical and mental health and wellbeing by making residents' homes warmer and cheaper to heat, reducing inequalities and the demand for acute services.
4. Tackle food and fuel poverty by reducing energy bills.
5. Create jobs, contributing to a diverse economy that offers opportunity to all and makes quality work experience and apprenticeships available to every young person

Consultation Details:
As the SPV's will be separate legal entities to the council the following forums have been consulted:
– The councils Shareholder Group, an advisory group which advises the council in its role as a Shareholder.
– The Board of Bristol Holding Ltd which is intended to be the parent company of the SPV's.

Background Documents:
1. Bristol Heat Networks – September 2018 Cabinet Report
2. Bristol Heat Networks – September 2019 Cabinet Report
3. 2nd April 2019 City Leap Cabinet report

Revenue Cost	**£ N/A**	**Source of Revenue Funding**	**N/A**

Capital Cost	Zero as covered by the Grant	Source of Capital Funding	*HNIP Grant Funding + already approved Prudential Borrowing*
One off cost ☐	**Ongoing cost ☐**	**Saving Proposal ☐**	**Income generation proposal ☒**

Required information to be completed by Financial/Legal/ICT/ HR partners:
1. Finance Advice: The Financial elements of the Business Plan have been reviewed, and no major items have been noted, other than the regular monitoring and control of the Capital Investment Program, in line with the Authority's code of practice and financial governance arrangements. It is hereby noted that the original Business Case, approved by Cabinet in September 2019, has not altered to any material effect.
Finance Business Partner: Paul Keegan, Interim Finance Business Partner, Resources 29th January 2020
2. Legal Advice: **PWLB funding** Public Works Loan Board funding can only be given to bodies that governed by public law (BGPLs). BCC is a BGPL, and has used PWLB lending to fund the heat network, including the assets to be transferred to the SPVs to be established. BCC intends to either transfer these loans to the SPVs. As such, the SPVs will (in order to receive PWLB funding) need to be BGPLs. A body will only be governed by public law if it established for the purpose of meeting needs in the general interest, does not have an industrial or commercial character (which is often dependent on whether it competes in a market) and is either funder or managed by the State. It is arguable that the SPVs, until they commence competing with others, will meet this test. However, this test will need to be carefully reviewed on an ongoing basis. Further, before the SPVs are transferred to City Leap, any PWLB funding will need to be repaid as the final limb of this test (being mainly funded/managed by the State) will no longer be met. **Procurement** As it is likely that the SPVs will be BGPLs, they will when procuring goods, works or services over certain thresholds need to comply with the Public Contracts Regulations or the Utilities Contracts Regulations. It should also be noted that despite the SPVs being BGPLs, the Council cannot directly award contracts for goods, works or services to the SPVs unless this is done in compliance with the Public Contracts Regulations and its own procurement rules. **State Aid** Whenever the Council grants a benefit, in any form, which may afford the recipient an advantage that has the potential to distort competition, there is a risk of State Aid (which is prohibited under the Treaty on the Functioning of the European Union). Provided that any assets/loans etc which are transferred to the SPVs are transferred on the same terms as would be available in the market, no State Aid will be present. Legal and financial advice will need to be taken throughout the transaction to ensure this remains the case. **Electricity Market Act** If there is a supply of electricity (which would be minimal through this provision) this will be under 5 MW of electricity (or not supplying domestic properties more than 2.5 MW) then we can operate under a license exemption. If not we would have to involve a licensed supplier who are compliant with the Electricity Act.
Legal Team Leader: Sinead Willis, Commercial and Governance Team Leader 28th January 2020
3. Implications on IT: No anticipated impact on IT Services, unless the new limited company needs IT equipment or identity (website/email) or will formally transfer data between itself and the Council.

IT Team Leader: Simon Oliver, Digital Transformation Director 21st December 2019		
4. HR Advice: There are no HR implications evident.		
HR Partner: Celia Williams, HR Business Partner, Growth & Regeneration 14th January 2020		
EDM Sign-off	**Stephen Peacock**	8th January '20
Cabinet Member sign-off	**Cllr Dudd & Cllr Cheney**	8th and 14th October '19, 13th & 15th Jan '20
For Key Decisions - Mayor's Office sign-off	**Mayor's Office**	3rd February '20

Appendix A – Further essential background / detail on the proposal	**YES**
Appendix B – Details of consultation carried out - internal and external	**NO**
Appendix C – Summary of any engagement with scrutiny *Planned briefing scheduled for 2nd March 2020*	**NO**
Appendix D – Risk assessment *Contained within Appendix I – Exempt Information*	**YES**
Appendix E – Equalities screening / impact assessment of proposal	**YES**
Appendix F – Eco-impact screening/ impact assessment of proposal	**YES**
Appendix G – Financial Advice	**NO**
Appendix H – Legal Advice	**NO**
Appendix I – Exempt Information	**YES**
Appendix J – HR advice	**NO**
Appendix K – ICT	**NO**

Appendix A

Business Case for the creation of

2 Heat Networks –

Special Purpose Vehicles

(Limited Companies)

Contents

1. Executive Summary

Bristol is a leading UK city in the journey to Net Zero with a declared goal of achieving Net Zero by 2030. Reducing the city's carbon emissions to virtually zero will require the eradication of the use of fossil fuel gas ('natural gas'), oil and coal for heating, cooking or industrial processes across the city.

To help achieve this, it is essential that Bristol City Council (BCC) commits to further expansions of its existing heat networks to serve new commercial and residential developments across the city with low carbon heat, whilst continuing to offer the benefits of connections to its own housing stock and property portfolio.

BCC has already completed Redcliffe Phase 1, supplying 700+ social housing homes with heat from a heat network. In Sep 18 and Sep 19 BCC Cabinet approved the continued development of the Bristol Heat Network, including expansion of the Redcliffe network and installation of the Old Market heat network and associated applications for Heat Network Investment Project (HNIP) grant funding from central government. This Cabinet approval included de facto approval for the creation of a Special Purpose Vehicle (SPV) to hold the funds subject to this Business Case. The Cabinet document is included in the appendix.

BCC has now been awarded £10.2m of HNIP/Department for Business, Energy and Industrial Strategy (BEIS) funding which needs to be drawn down by 31st March 2020 but to do this a BEIS requirement is for receiving BCC to set up an SPV to receive and spend the funds.

Alongside this work, City Leap and the Energy Service has developed a new heat network strategy to deliver savings to customers through disaggregating heat generation, pipework and retail into separate entities in order to create competition in heat retail and heat generation. To realise this strategy Cabinet is requested to support the formation of two SPVs.

Both SPV entities are intended to be financially viable without City Leap progressing and will be set up on a 'thin' SPV basis, with no direct employees and all operations and management undertaken by the existing BCC Energy Services team. The financial model remains consistent with the numbers presented in the Sept 19 Cabinet paper.

Limited operational risks will sit with BHL as a result of the creation of the SPVs as all management, funding and operational performance management will be undertaken by BCC via a Management and Operations Agreement.

2. Business Case Introduction

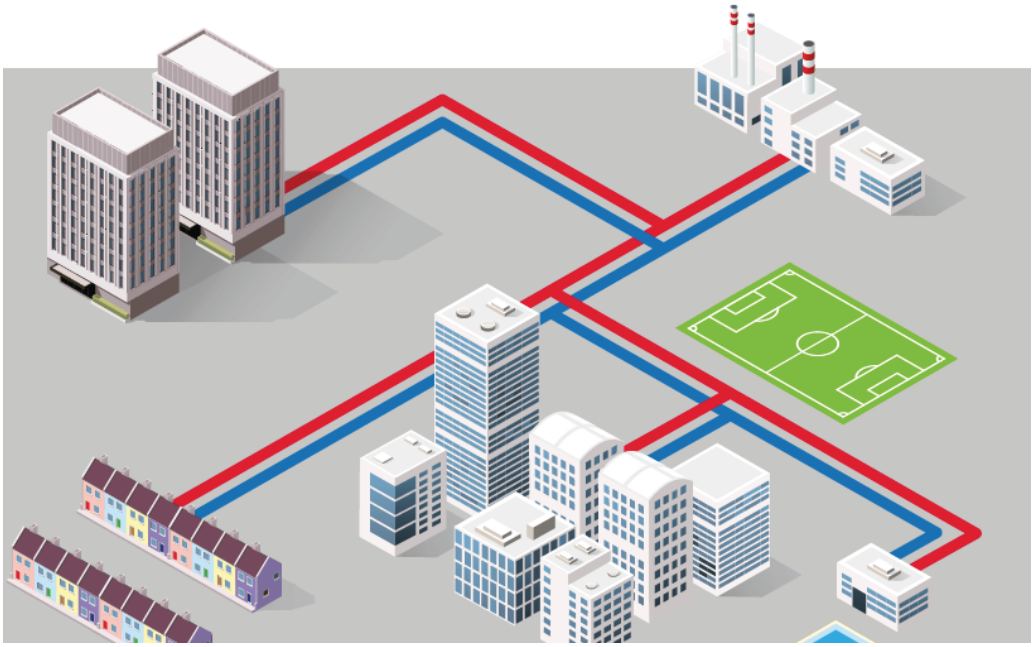
The purpose of this document is to set out the business case for the creation of 2 SPV's, by the 31st March 2020 in order to support the development of BCC and City Leap's Heat Network strategy. This document will recap on the rationale for Heat Networks, the City Leap Heat Network commercial strategy and case for the creation of the SPV's.

This document is the follow on from the September 19 Cabinet approval for the continued development of the Heat Network Programme and the HNIP grant application. The Cabinet paper stated: *'Note that, if accepted, the Heat Network Investment Project grant award must be held by a special purpose vehicle rather than the Council, and that a further report will come back to Cabinet for approval to establish such special purpose vehicle.'*

2.1 The background

Heat networks, also known as district heating, are systems for distributing heat generated in a centralised location via a network of pipes for domestic and commercial space heating and water heating.

As the heat network is agnostic to the type of heat generation installed, it can supply heat from a variety of energy generation technologies from Gas combined heat and power (CHP) to water source heat pumps as well as biomass and waste heat from industrial processes. This ensures heat networks are a 'no regrets' infrastructure able to deliver heat whatever the heat generation technology available.



Heat networks using low or zero carbon energy technologies are amongst the cheapest methods of cutting carbon emissions. With regards to the Bristol Heat network, various low and zero carbon heat sources will be incorporated including water source heat pumps (WSHP) supplying heat from the floating harbour, Gas CHP and the currently operating biomass boiler as part of the operating Redcliffe Phase 1 heat network. The wider network will also be investigating other heat sources such as heat from mines and sewers.

BCC is developing heat networks across the city to deliver affordable, low-carbon heat and energy across the city. The Heat Network will eventually cover central Bristol and other areas across the city, powered by low and ultimately zero carbon energy centres.

BCC has invested over £6m in its heat networks to date and supplies over 1,000 properties with low carbon heat. A comprehensive city-centre heat network will be a crucial aspect of the action required if Bristol is to achieve its carbon neutral ambitions and also represents a significant investment opportunity as part of the City Leap programme.

Prior to the City Leap Energy Partnership being in place, it is critically important that the council continues to support the build out of the heat network in order to meet the connection timeframes of new developments, ensure long term financial viability of the network and progress along the zero carbon pathway.

The Bristol heat network must also be able to supply low or zero carbon heat to connected buildings at a cost equivalent to, or lower than, mains gas so that existing buildings are incentivised to connect to the heat network.

Although only 2% of heat in the UK is currently supplied by heat networks, this is rapidly increasing, particularly in cities. They are supported by UK government who have recognised that around 20% of heat could be supplied by heat networks across all five future energy supply scenarios contained in the Clean Growth Strategy, which was published by Central Government in 2017. Major European cities like Vienna and Copenhagen have installed heat networks supplying over 95% of homes. Consequently, Copenhagen is on track to be carbon neutral by 2025.

In the UK, many cities have either installed or are looking to install heat networks. London currently has the greatest number of heat networks with London boroughs such as Enfield and Islington taking a lead. A number of large towns are also installing heat networks. For example, Gateshead has completed a £25 million heat and power network supplied from a Gas CHP energy centre.

2.2 The Heat Commercialisation Strategy

Commercially sensitive information in exempt Appendix I

3. The Business Case Request

This business case requests the formation of 2 SPV's described above. These SPV's will initially sit under Bristol HoldCo and hold the assets associated with the development of the Old Market and Redcliffe heat networks and associated energy centres.

3.1 SPV operating strategy

The SPV's will operate as asset holding structures and will not have any employees. All operational management of the SPV's will be undertaken via a management and operations services contract with the BCC Energy Services team.

As a minimum, the management services contract will cover the provision of project management services to construct the assets, operational services to operate and maintain the assets, commercial, financial and administration services to hedge, meter, bill, collect and generally administer the SPV.

See Management Case section below for more details.

3.2 Commercial Structure

Commercially sensitive information in exempt Appendix I

3.3 Heat Network delivery to date

The Energy Services team has already delivered the first phase of the Redcliffe Heat Network which has been in operation since 2016, supplying over 700 social housing flats. The next phase of the

Redcliffe network is now in the delivery phase, which will include the supply of heat to a number of commercial buildings.

Heat network pipes have also been installed on key infrastructure as part of the Temple heat network build out, in order to supply heat to new developments within Bristol's Temple Quarter Enterprise Zone (TQEZ). This includes the University of Bristol's new flagship Temple Quarter campus.

The Energy Services team are also implementing further feasibility and design work across a number of heat networks in the city, including the strategic heat main which will enable zero carbon heat from 'energy from waste plants' to be connected to the city centre heat network.

Each of the heat networks has been funded by a combination of BCC prudential borrowing, connection fees charged to new developments that are required to connect to the heat network and the HNIP grant funding.

3.4 Key Benefits

The fundamental reason for developing the Bristol heat network is to ensure Bristol meets the Mayor's net zero carbon target as part of the Council's response to the Climate Emergency

Setting the SPV's will enable the Bristol Heat Network to receive grant funding of £10.2 million to make the initial development of the networks financially viable.

Implementing the commercialisation strategy allows each of the entities in the new commercial model to have a different risk profiles, facilitating external investment.

The commercial strategy thus makes the investment opportunity more attractive to the type of private sector finance required to scale up the deployment of heat infrastructure and relieve the pressure on Government (ultimately the tax payer) to fund the decarbonisation of heat.

Other benefits. Installing heat networks can also support the following corporate strategy key commitments:

- Improve our environment to ensure people enjoy cleaner air through supporting the further deployment of renewable heat generation.
- Improve physical and mental health and wellbeing by making residents' homes warmer and cheaper to heat, reducing inequalities and the demand for acute services.

- Tackle food and fuel poverty by reducing energy bills.
- Create jobs, contributing to a diverse economy that offers opportunity to all and makes quality work experience and apprenticeships available to every young person.

Installing heat networks can also provide the following benefits for the City of Bristol:

- Reducing heating costs for all those connected to the heat network compared to alternates, addressing fuel poverty
- Reduce fuel bills for businesses connected to the network through lower prices
- Reduce energy consumption and operating costs for building occupiers, improving Bristol's competitiveness for attracting new businesses to the City.
- Increase the City's energy security and resilience.

4. The Financial Case

The sections below provide the P&L/Cashflow for the first 10 years of each SPV and the totals for years 11 to 40. The numbers are extracted from 40 year models used with the City Leap process and represent Phase 1 of the Old Market and Redcliffe networks.

The models demonstrate financial viability for both SPV's and in total cabinet has approved £12.7m of Prudential borrowing which along with the £10.2m HNIP Grant funding will cover the capital required for this stage of delivery.

The September 2019 Cabinet report stated '*The total capital expenditure (£26.2m) is partly funded from potential government grants (£11.8m). Government grant funding "Heat Network Investment Project grants" (HNIP) and "Renewable Heat Incentive" (RHI) income for the WSHP in the Old Market Heat Network will be applied for and connection fee income from privately owned buildings and commercial properties will be generated (£1.8m).'*

The numbers below reflect the latest view but remain substantially the same as the September Cabinet paper.

Commercially sensitive information in exempt Appendix I

4.1 Future expansion

The numbers above for the two SPV's are based on phase 1 of the Heat Programme. The wider ambition and opportunity set out in the City Leap prospectus includes further expansion of Old Market and Redcliffe network plus 4 additional networks and then expansion via a strategic heat main to potentially connect 1.5 TWh of annual demand.

This level of growth will require significant further capital investment from the City Leap programme. The economics unpinning the numbers for phase 1 are scalable with return increasing due to economies of scale and operational efficiencies.

4.2 Risk and Mitigations

Risk	Mitigations
BHL Risks	
- Performance Risk*: Risk that the SPVs under perform operationally and BHL directors need to step in to resolve*	All operational risk transferred to BCC Energy Services team via the Management and Operations Agreement
- Funding Risk: *Risk that the SPV runs out of capital or operational funds*	Before the need for the SPV arose, this risk sat with BCC and through the Management and Operations Agreement this risk will remain with BCC. BCC holds the risk of financial underperformance.

Commercially sensitive information in exempt Appendix I

5. Management case

5.1 Programme and project management plans

Below is an extract from the delivery programme. This programme is managed by the BCC Energy Services team and this will not change as a result of the SPV formation.

Commercially sensitive information in exempt Appendix I

5.2 Governance and management Structure

Current governance

The SRO for Heat Networks is Patsy Mellor as BCC Director for Management of Place who reports directly to the Executive Director for Growth & Regeneration.

In line with other BCC capital projects, exception highlight reports are provided to senior management on a monthly basis. In addition capital and revenue forecasting is provided on a monthly basis to the senior leadership team (CLB) for review.

Proposed additional governance

Following the setting up of the SPVs additional levels of governance will be required to ensure the SPVs are operating correctly and that BCC in-house delivery of the heat networks is being carried out correctly.

Directors will be appointed to each SPV who will bring industry expertise in the construction and operation of heat generation and distribution assets.

The SPV governance will need to have appropriate touch points with the inhouse delivery team whilst providing a level of scrutiny to the delivery, operation and management of the heat network.

The table below lists the current team structure and support services required to deliver the heat networks.

Role/Position	Name	Description/Responsibilities
Management/Senior Management		
Executive Director Growth & Regeneration	Stephen Peacock	Sign off of contracts as per delegated authorities
Director Management of Place	Patsy Mellor	**Senior Responsible Officer** + Sign off of contracts as per delegated authorities
Head of Energy Service	Steve Ransom	
Energy Infrastructure team roles (delivery)		
Programme Manager Energy Infrastructure		Team manager and heat network programme manager
Project Manager		PM responsible for individual heat network delivery
Technical Manager		Review and sign off of technical designs
Construction Manager		Heat network construction - procurement, management and delivery (including health & safety)
Asset Manager		Operation & Maintenance - O&M contract management
External Support (not BCC)		
Commercial & Financial Advisor (Strategic)		Support with new commercial model including detailed financial modelling
Commercial Advisor (Connection contracts)		Connection agreement negotiations
Heat network design & PM		Design of heat network pipe install and NEC4 Construction contract Project Manager
Feasibility/Design/Techno economic modelling		Feasibility and design of heat network
BCC Support (non Energy Service)		
BCC Legal		General heat network legals
BCC Legal (Property)		Property lease agreements
BCC Legal (Construction)		Review of procurement and construction activities
BCC Finance		Review of project revenues and capital expenditure. Management accounts

Communications & PR		
Other		ICT, HR and other support services

Names of officers below third tier have been removed from the second column of the above table as personal data and are contained in exempt Appendix I

Additional SPV Governance

As a result of the creation of the SPV the main change required to the above is for the inclusion of the SPV director in the signatory list, this should be the last signatory and as described below the role of the director will be to ensure that the Energy Services team are fulfilling their duties in accordance with the Management and Operations Agreement.

5.3 Performance management

Within the BCC Energy Service projects are managed as follows:

Individual project managers within the EI team are responsible for project management of heat networks. The PM is responsible for general delivery and also building connection agreements, feasibility and design of the network. Once the project moves to the delivery phase, the works are handed over to the Construction Manager to manage appointment of appropriate contractors and construction contract project management resource (NEC4 Construction contracts) with the PM retaining responsibilities for connection liaison.

Project Managers carry out a combination of Agile and Prince2 project management practices with Gantt Chart and RAID logs being provided to the Programme Manager on a monthly basis for review. The Programme manager is responsible for reviewing project highlight reports and RAID logs and where projects are beyond tolerance these are raised at monthly Energy Service management meetings (capital and revenue forecasting) with the Head of Energy Services. Where tolerances are outside of energy service limits these are then raised with the Service Director for Management of Place for potential escalation to the Director of Growth and Regeneration.

In addition, capital and revenue financial forecasting is also carried out on a monthly basis. Responsibility for this forecasting lies with the Programme Manager which is uploaded for review by the Head of Energy Services, Management of Place leadership team and ultimately BCC Senior leadership team.

None of this will change as a result of the SPV creation as the Energy Services team will continue to undertake full operation and management responsibilities on behalf of the SPV via the Management and Operations Agreement.

5.4 Role of Directors

The SPVs are asset holding entities and the substantive work in managing and operating the generation assets and heat network, and related risks, is outsourced to BCC, pursuant to the relevant contracts.

As a result, the role of BHL and the SPV directors will be to monitor the overall performance of the BCC energy services team performing the relevant services.

However, as it is not possible to contract out all directors' duties, the directors would need to be able to demonstrate that they had sought advice on the contracts monitored their implementation to a relevant degree and considered the SPV's financial position at relevant points. This should all be recorded in an appropriate paper trail on an ongoing basis. By way of protection offered to those directors, typically, the articles would include an indemnity, and the SPV take out D&O insurance to cover that Director.

5.5 Other considerations

5.5.1 City Leap Cessation

If the City Leap programme does not proceed there are no implications associated with this business case.

5.5.2 TUPE Implications

There are no TUPE implications associated with these SPV's.

5.5.3 Communication and Publicity aspects

There are no communication or publicity aspects associated with these SPV's.

Appendices

September 2019 Cabinet paper:

Sep 2019 Cabinet Decision Pathway - He

Decision Pathway – Report

PURPOSE: For reference

MEETING: Cabinet

DATE: 03 September 2019

TITLE	**Bristol Heat Networks (heat network expansion and utilisation of the floating harbour to provide low carbon heat).**
Ward(s)	**Central and Lawrence Hill**
Author: Paul Barker	**Job title: Energy Infrastructure Programme Manager**
Cabinet lead: Cllr Kye Dudd	**Executive Director lead: Colin Molton**
Proposal origin: *BCC Staff*	
Decision maker: Cabinet Member **Decision forum:** *Cabinet*	

Purpose of Report:

Bristol City Council is developing heat networks across the city to deliver affordable, low-carbon heat and energy across the city. The Heat Network will eventually cover central Bristol and other areas across the city, powered by low carbon energy centres.

This report seeks to progress two city centre heat networks;

1. The Old Market Network- for this, additional funds are sought to enable the completion of the network and in particular the installation of a Water Source Heat Pump at the current Castle Park Depot site. This will supply low carbon heat to the network in support of the goal to achieve carbon neutrality by 2030.

2. Redcliffe Network- additional funds (to those approved September 2018) to extend the Redcliffe Network to enable new connections that have come forward since the original approval was sought.

Evidence Base:

Bristol City Council has invested over £6m in its heat networks to date and supplies over 1,000 properties with low carbon heat. A comprehensive city-centre heat network will be a crucial aspect of the action required if Bristol is to achieve its carbon neutral ambitions and also represents a significant investment opportunity as part of the City Leap programme. Prior to the City Leap Energy Partnership being in place, it is critically important that the council continues to support the build out of the heat network in order to: meet the connection timeframes of new developments; ensure long term financial viability of the network; and progress along the zero carbon pathway.

The BCC Energy Service is therefore seeking £6.21 million of prudential borrowing to match grant funding and development connection fees in order that the Bristol Heat Network can achieve this.

The Bristol heat network must also be able to supply low or zero carbon heat to connected buildings at a cost equivalent to, or lower than, mains gas so that existing buildings are incentivised to connect to the heat network. For the Old Market network, this is proposed in the first phase through the installation of a 3MW Water Source Heat Pump (WSHP) utilising heat from the floating harbour as part of a energy centre/mixed use development on the current Castle Park Depot site. The WSHP would receive government Renewable Heat Incentive (RHI) income guaranteed for 20 years totalling £12.5 million. However, as the RHI is due to close in March 2021, the WSHP requires

installation & commissioning before this date. (The site for the heat pump is also of interest for wider development, BCC Energy Services are working across a number of departments to ensure that the installation of the energy centre can be future proofed to allow for this).

All works described in this report and the Bristol Heat Network will be used as assets to support the City Leap offer from the Council.

Approval is therefore sought to carry out the following capital projects:

1. Progress Phase 1 of Old Market Network including installation of a WSHP Energy Centre at Castle Park Depot at a total capital cost of £18.18m (see breakdown in Finance section).
2. Expand the Redcliffe heat network to connect additional buildings at a total capital cost of £8.06m.

To deliver these projects approval is sought for allocation of £6.21m from BCC funding for the scheme which currently stands at £11.25m in the Capital programme. This funding is from Prudential Borrowing (PB) and includes the reallocation of £1.55m previously allocated to the St Paul's heat network scheme which has been significantly delayed (this is also PB).

1. This approval, along with previous approvals will enable the delivery of £26.23m of investment in the council's heat networks with the remaining £13.6m coming from government grant funding, Heat Network Investment Programme (HNIP), and connection fees.
2. The requested funding supports the delivery of the next phase of the council's heat network where:
    - Connection to new developments are required
    - Income generation targets and Government grant funding is at significant risk
    - The integration of heat networks with digital (B-net) and/or highway infrastructure projects will take place
    - Decarbonisation of the heat networks will continue in line with carbon neutrality targets

<u>Grant Funding Status</u>

a. **Old Market Network** In addition to BCC funding from PB and the connection charges, the remaining funding will come from government grant funding (HNIP). Important note,
    i. We will apply for HNIP grant funding for the Old Market Network
    ii. The Castle Park WSHP will receive RHI subsidy (you cannot apply for both and the RHI revenue provides a significant financial benefit over HNIP).

b. **Redcliffe Heat Network:** In addition to BCC funding from PB and the connection charges, the remaining funding will come from government grant funding (HNIP).

<u>Further Information</u>

1. Heat networks are central to achieving the Mayor's goal for Bristol to be a carbon neutral city by 2030, in addition to helping to tackle fuel poverty by providing heat to residents at lower prices. The heat network will also provide the Council with a revenue stream from the sale of heat and power to connected residential and commercial buildings as part of its commercialisation agenda. The expansion of the heat network forms part of City Leap, which was approved by Cabinet in May 2018, with approval to procure a Joint venture partner given in April 2019.
2. **<u>Water Source Heat Pump (WSHP) installation.</u>** To meet the 2030 carbon neutral goal, it is vital to decarbonise the heat network using renewable and low carbon sources of which there are limited sources available within the City Centre. One such source of renewable heat is the floating harbour through the use of water source heat pumps (WSHP), which can extract heat from the water to supply the network. This is likely to be the first of many WSHPs that will be installed within the City centre to provide low carbon heat.
3. Through this investment BCC will receive revenue through the Renewable Heat Incentive (RHI) in the region of £12.5m over 20 years. To obtain this revenue the WSHP must be commissioned by March 2021, therefore there is a critical need to progress this development. If the deadline is not met, the IRR for the Old Market

heat network will be significantly impacted.

4. For WSHP projects of this size, the lead times for manufacture can be long (up to 12 months); therefore there is an urgent need to place the order as soon as possible, to enable installation ahead of the RHI deadline. The procurement for the heat pump is being carried out so that it will be ready to award as soon as possible following approval from Cabinet to proceed.
5. This Energy Centre is required to supply heat to the Old Market Heat Network which includes the Castle Park View development. Castle Park View will initially be supplied by a temporary gas boiler solution on this site. However, this will need to be replaced by this Energy Centre to ensure BCC meets its carbon targets in addition to maintaining the schemes reputation, including giving credibility to BCC's Planning policy that requires connection to a low carbon heat network.
6. Castle Park Depot is currently operated by Parks who are planning to move to alternative locations in order to release the depot site, as it has been identified for its development potential. The BCC Energy Service have been working with Property, Planning services, Housing, Parks, Culture and City Design in order that an Energy Centre (ground floor) and office/residential development (upper floors) can be accommodated on this site. A consultant has been procured to assess the options of combining an energy centre with wider development; these have been presented to the Growth and Regeneration EDM/Board. Throughout the process, BCC Energy Services will work collaboratively to ensure the energy centre build is future proofed to enable a mixed use development, in line with the findings of the appraisal in order to maximise the use of the site.
7. In order to meet the deadline above we need to progress with procuring the design, build and commissioning of the energy centre prior to the details of the wider development being confirmed, this may mean that the Energy Centre makes use of the existing Parks depot building/confines and is then moved to its desired location within the development as this progresses.
8. **Redcliffe Network – Further expansion:** The additional funding is required to extend the Redcliffe Network to meet the timescales of developments coming forward. This provides backing to the Council's planning policy for new developments to connect and also supports the business case for the network.

Cabinet Member / Officer Recommendations:

That Cabinet:

1. Authorise the Executive Director for Growth and Regeneration in consultation with the Cabinet Member for Energy, to procure the purchase of and enter into contracts for the delivery of a Water source heat pump led energy centre at Castle Park Depot.
2. Approve the allocation of £6.21m (funded from prudential borrowing) for the next phase of the works, along with the re-allocation of £1.55m from the St Paul's Heat Network Scheme (prudential borrowing).
3. Authorise the Executive Director for Growth and Regeneration, in consultation with the Cabinet Member for Energy, the Cabinet Member for Finance, and the Chief Finance Officer, to apply for and accept government revenue and capital grant funding of up to (but not limited to) £11.8m including Renewable Heat Incentive funding, and Heat Network Investment Project capital grant funding from the Department of Business, Energy & Industrial Strategy.
4. Authorise the Executive Director for Growth and Regeneration, in consultation with the Cabinet Member for Energy, to procure and enter into contracts for delivery of all goods, works and services (including associated operation and maintenance contracts) referenced in Appendix A to this Cabinet Report to the value of £26.23 million.
5. Note that, if accepted, the Heat Network Investment Project grant award must be held by a special purpose vehicle rather than the Council, and that a further report will come back to Cabinet for approval to establish such special purpose vehicle. This report is planned for November 2019.
6. Note that the total value of the delegated authority from this and previous cabinet reports, which including Grant funding (if awarded) and prudential borrowing and connection charges total £26.23m. This increase is due to additional grant funding being sought in addition to an increase in connection fees expected.

Corporate Strategy alignment:

1. This report supports the Key Commitment to 'Keep Bristol on course to be run entirely on clean energy whilst improving our environment to ensure people enjoy cleaner air, cleaner streets and access to parks and green spaces.'

City Benefits:

1. Keep Bristol on course to be run entirely on clean energy by supporting the build out of low carbon heat networks
2. Improve our environment to ensure people enjoy cleaner air through supporting the further deployment of renewable heat generation.
3. Improve physical and mental health and wellbeing by making residents' homes warmer and cheaper to heat, reducing inequalities and the demand for acute services.
4. Tackle food and fuel poverty by reducing energy bills.
5. Create jobs, contributing to a diverse economy that offers opportunity to all and makes quality work experience and apprenticeships available to every young person
6. Achieve the above benefits in addition to enabling the site to come forward for further development

Consultation Details:

1. WSHP energy centre - Alternative sites have been explored with Property, however due to the amount of space needed and the requirement for the WSHP to be in close proximity to the floating harbour Castle Park Depot is a priority site.
2. WSHP energy centre – discussion has been had with the harbour master and Environment Agency who are happy at this stage with the proposal of a WSHP and associated abstraction requirements in this location

Background Documents:

1. 1 July 2014 Cabinet Report 'District Heating Phase 1'
2. 7 June 2016 Heat Networks Phase 2
3. 9th May 2018 City Leap Cabinet report
4. 4th September 2018 Bristol Heat Network
5. Old Market Feasibility Report

Revenue Cost	**£Nil**	**Source of Revenue Funding**	*n/a*
Capital Cost	*Old Market and Redcliffe: £26.23m*	**Source of Capital Funding**	*Previously approved prudential borrowing: £4,864,058* *Requested Prudential borrowing Old Market and Redcliffe: £6,213,558* *Total Heat Network Investment Project (HNIP) grant funding: £11,804,829* *Total Connection fees: £1,795,516* *Re-allocation from St Pauls: £1,554,993 (also prudential borrowing)*
One off cost ☐	**Ongoing cost** ☐	**Saving Proposal** ☐	**Income generation proposal** ☒

Required information to be completed by Financial/Legal/ICT/ HR partners:

Finance Advice:

This report seeks approval to carry out further Heat Network capital projects in two areas of the city:

1) Old Market Network phase 1 progressed including installation of a Water Source Heat Pump (WSHP) Energy Centre at Castle Park Depot.

2) Expand the Redcliffe heat network to connect additional buildings.

To deliver these projects the report seeks approval to:

- For the **Old Market Network**: **Draw down and allocate £5.4m** of capital budget via Prudential Borrowing (PB). Energy Service projects have been earmarked £11.2m of PB as part of the approved PL19 capital programme.
- Also for the **Old Market Network**: **Redirect £1.6m** available funds previously allocated to the St Paul's heat network scheme (which originally had Cabinet approval in September 2018). This was also to be funded from prudential borrowing.

- For the **Redcliffe Heat Network: Draw down and allocate £0.8m** of capital budget via Prudential Borrowing (PB). Energy Service projects have been earmarked £11.2m of PB as part of the approved PL19 capital programme.

The two projects, including the WSHP, will involve total capital expenditure of £26.2m and will be funded from a mix of PB, grants and connection fee income, as illustrated in the following table:

Project	**Old Market**	**Redcliffe**	**Total**
	£'m	**£'m**	**£'m**
Total CAPEX	**£18.2**	**£8.1**	**£26.2**
Funded By:			
Grant funding - HNIP	£8.2	£3.6	£11.8
Connection charges	£0.6	£1.2	£1.8
PB - Approved by Cabinet - Sept 18	£2.4	£2.4	£4.9
PB - New Approval sought	£5.4	£0.8	£6.2
PB - New Approval (Re-allocation of funding for St Pauls)	£1.6	£0.0	£1.6
	£18.2	**£8.1**	**£26.2**

The total capital expenditure (£26.2m) is partly funded from potential government grants (£11.8m). Government grant funding "Heat Network Investment Project grants" (HNIP) and "Renewable Heat Incentive" (RHI) income for the WSHP in the Old Market Heat Network will be applied for and connection fee income from privately owned buildings and commercial properties will be generated (£1.8m).

In appendix A, table 2 and table 3 sets out in more detail a summary of the key financial details of the two projects. The financial modelling ensures the heat networks meet the Councils finance requirements and both projects as they stand meet this requirement, generating positive financial benefits.

Opportunities, risks and mitigations from these projects:

1) Grants: The projects assume 45% grant funding contribution. The Energy team have worked closely with the government on heat network projects, previously being successful in obtaining Heat Network Delivery Unit (HNDU) funding; they are keen on work continuing, so there is confidence in that funding can be secured. However there is also a risk that not all bids would be successful in securing the grant funding. The projects would require further viability assessments after the results of the grant funding bids are known. Further prioritisation would be required taking into account funding available, the return on investment, net revenue implications and other non-financial implications. Other possible funding streams may be available, including government loans and Salix funding, but only if they are financial viable, fully assess and delegated authority is given to explore these other financial mechanisms.
2) Delivery speed of the projects pose a risk to the £12.5m RHI funding for the WSHP (where applications to obtain funding is due to close March 2021) and the connection fee income which is funding the two projects. The connection fee income will also provide ongoing revenue to the Council, any significant delays in these projects may jeopardise the fee income, resulting in permanent losses of connections to the network and the associated income.
3) These projects are important parts of the Bristol Heat Network system and will be important assets under the City Leap initiative.

Finance Business Partner: Kayode Olagundoye, Interim Finance Business Partner, Growth and Regeneration, date 08/08/19

2. Legal Advice: When procuring goods, works and services pursuant to this report, the client officers must ensure the all applicable procurement regulations (including utilities regulations if these apply), and all energy-sector regulations are complied with. Client officers will need to seek legal advice throughout the process of implementing the recommendations contained in this report. Wherever the Council grants a benefit to any undertaking, that benefit may constitute State aid which is prohibited. Again, client officers will need to seek legal advice to ensure no state aid is granted when implementing the recommendations in this report, or if it is granted an exemption is available. In accordance with Bristol City Council's Financial Regulations, the Council may not establish any entity (including an SPV) until it has obtained Cabinet approval which has been granted following Cabinet's consideration of an appropriately detailed business case. We understand that such information will subsequently be presented to Cabinet. The SPV referred to above cannot be established until Cabinet has granted such approval.
Legal Team Leader: Eric Andrews, Commercial and Governance Team, 14 August 2019
3. Implications on IT: There are no immediately identifiable IT implications in this proposal at this stage. As the development of the network progresses, there will be opportunities and requirements for management systems and data collection. These will be need to be developed and implemented at the appropriate time and in ways that help maximise the utilisation and effectiveness of the network and the accompanying infrastructure.
IT Team Leader: Ian Gale, 6th July 2019
4. HR Advice: "Staffing resource is required for the construction of the new energy centre, namely a Construction Manager and a project manager. There are no other HR implications evident at this stage but the position should be reviewed through the course of the project."
HR Partner: Celia Williams, 25th July 2019

EDM Sign-off	Patsy Mellor	19th June 2019
Cabinet Member sign-off	Cllr Dudd	1st July 2019
For Key Decisions - Mayor's Office sign-off	Mayor's Office	5th August 2019

Appendix A – Further essential background / detail on the proposal	**YES**
Appendix B – Details of consultation carried out - internal and external	**NO**
Appendix C – Summary of any engagement with scrutiny	**NO**
Appendix D – Risk assessment	**YES**
Appendix E – Equalities screening / impact assessment of proposal	**YES**
Appendix F – Eco-impact screening/ impact assessment of proposal	**YES**
Appendix G – Financial Advice	**NO**
Appendix H – Legal Advice	**NO**
Appendix I – Exempt Information	**NO**
Appendix J – HR advice	**NO**
Appendix K – ICT	**NO**

Bristol City Council Equality Impact Assessment Form

(Please refer to the Equality Impact Assessment guidance when completing this form)

Name of proposal	Bristol Heat Networks - Special Purpose Vehicle (SPV)
Directorate and Service Area	Growth and Regeneration, Energy Services
Name of Lead Officer	Paul Barker

Step 1: What is the proposal?

Please explain your proposal in Plain English, avoiding acronyms and jargon. This section should explain how the proposal will impact service users, staff and/or the wider community.

1.1 What is the proposal?
Bristol City Council are constructing heat networks to enable decarbonisation of heat across the city in support of the Council's Carbon neutrality aims. These work by installing pipes underground to transport heated water to buildings that then use this for heating and hot water. In order to heat the water energy centres are required where a combination of technologies are used with low/zero carbon being of highest importance. In order to fund the construction of the heat networks, Bristol City Council applied for Heat Network Investment Project government grant funding for the Redcliffe and Old Market networks. Bristol City Council has been awarded funding and a condition is that the money be held off National Accounts. Therefore, this cabinet request is specifically related to the set-up and structure of Special Purpose Vehicles. The Special Purpose Vehicles will be set up under Bristol Holdings Ltd utilising existing governance structures.

Step 2: What information do we have?

Decisions must be evidence-based, and involve people with protected characteristics that could be affected. Please use this section to demonstrate understanding of who could be affected by the proposal.

2.1 What data or evidence is there which tells us who is, or could be affected?

Two of the key aims of our Business Plan 2019-20 are: 'Reducing our environmental impact by using clean energy, improving air quality and reducing waste and pollution'; and 'Tackling food and fuel poverty'.

Climate change and the risk it poses for the future resilience of our city (for example in terms of increased flood risk) affect all citizens and in particular people living in poverty and those experiencing multiple sources of inequality because of their protected characteristics.

The Bristol Quality of Life Survey indicates that young people, carers and people of White minority ethnicity are less likely to be satisfied with the cost of heating their home than average residents.

There is also a marked difference in the extent to which Tenants of Private Landlords (41.9%) compared to Council Tenants (49.4%) and Housing Association Tenants (49.3%) are satisfied with the cost of heating their home.

% satisfied with the cost of heating their home

Equalities Group	Percentage
16 to 24 years	42.4%
50 years and older	50.4%
65 years and older	58.3%
Female	46.7%
Male	46.8%
BME (Black and Minority Ethnicity)	45.8%
WME (White Minority Ethnicity)	36.9%
Carer	43.5%
Disabled	43.3%
LGB (Lesbian Gay Bisexual)	51.4%
No religion or faith	45.4%
Religion or faith	51.0%
Bristol Average	**46.8%**

source: Quality of Life in Bristol survey 2018-19

Type of Tenancy	Percentage
Council Tenants	49.4%
Housing Association Tenants	49.3%
Owner Occupiers	48.7%
Tenants of Private Landlords	41.9%
Bristol Average	**46.8%**

source: Quality of Life in Bristol survey 2018-19

2.2 Who is missing? Are there any gaps in the data?

We know that there are gaps in our diversity data for some protected characteristics citywide, especially where this has not historically been included in census and statutory reporting e.g. for sexual orientation.

Bristol City Council workforce diversity monitoring is limited to: Age Group, Disabled Employees, Ethnicity, Gender, Religion/Belief and Sexual Orientation – we do not have reportable diversity statistics at a service area level for Pregnancy/Maternity or Gender Reassignment.

2.3 How have we involved, or will we involve, communities and groups that could be affected?

We have consulted with internal subject-matter experts. We will involve and consult with any affected staff in Energy Services about subsequent changes in processes.

Separately from this proposal there has been / will be wider public engagement and consultation about the City Leap Prospectus and Bristol Heat Networks.

Step 3: Who might the proposal impact?

Analysis of impacts on people with protected characteristics must be rigourous. Please demonstrate your analysis of any impacts in this section, referring to all of the equalities groups as defined in the Equality Act 2010.

3.1 Does the proposal have any potentially adverse impacts on people with protected characteristics?

No significant negative impacts of setting up Special Purpose Vehicles have been identified at this stage. However we need to ensure that the Heat Network expansion meets the different needs of Bristol's diverse population and that works are not disruptive to citizen's access to affected areas.

The set-up of the Special Purpose Vehicles is unlikely to have an impact on citizens of Bristol. However, there may be an impact on existing Council staff due to different reporting structures (a Director will need to be appointed). There will be no significant change to anyone's job role as the structure is intended to continue 'business as usual' with all existing risks sitting within the Energy Services. In addition, the Special Purpose Vehicle will be set-up with no employees therefore no impact to staff contracts.
3.2 Can these impacts be mitigated or justified? If so, how?
We will continue to work with building designers and developers to ensure that equality impacts are considered throughout the process and minimise any disruption from Heat Network Expansion works. Although we do not anticipate any significant changes to job roles within Energy Services, we will ensure that staff are informed and consulted on any changes in processes, and where appropriate any reasonable adjustments are implemented.
3.3 Does the proposal create any benefits for people with protected characteristics?
Developments connected to the network will have lower energy costs for the provision of heat, therefore supporting people in fuel poverty. The set-up of the Special Purpose Vehicles will facilitate this.
3.4 Can they be maximised? If so, how?
The Special Purpose Vehicles allows Bristol City Council to continue to provide a wider positive impact to reduce the effects of climate change.

Step 4: So what?

The Equality Impact Assessment must be able to influence the proposal and decision. This section asks how your understanding of impacts on people with protected characteristics has influenced your proposal, and how the findings of your Equality Impact Assessment can be measured going forward.

4.1 How has the equality impact assessment informed or changed the proposal?
The EqIA has identified that even though the proposed structure of the Special Purpose Vehicles are to continue "business as usual" there will be changes to existing Energy Services staff current way of working which will need to be identified and communicated prior.
4.2 What actions have been identified going forward?

Managers will ensure that Council staff are informed and consulted on any changes in processes.
4.3 How will the impact of your proposal and actions be measured moving forward?
• Reduction in the percentage of the population living in fuel poverty • Reduction in the total CO2 emissions in Bristol

Service Director Sign-Off: Patsy Mellor	Equalities Officer Sign Off: *Reviewed by Equality and Inclusion Team*
Date: 16/01/2020	Date: 15/1/2020

Eco Impact Checklist

Title of report: Bristol Heat Networks - Special Purpose Vehicle (SPV)
Report author: Paul Barker
Anticipated date of key decision: 03/03/2020
Summary of proposals: The purpose of this report is to gain approval for the creation of Special Purpose Vehicle companies (SPV's) required to receive grant funding from the Heat Network Investment Project (HNIP), for the continued development of the Bristol heat network programme. The case for the continued development of heat networks has been made previously and in September 2019 Cabinet (see background documents) approved funding for the Old Market and Redcliffe Heat networks including the application for grant funding from HNIP. That Cabinet report noted the need for the creation of SPV's to hold HNIP grants. The creation of the SPV's also facilitates the creation of a competitive heat market consistent with the City Leap heat strategy. Cabinet Approval is sought to: 1) Establish two (2) Special Purpose Vehicle (SPV) companies under Bristol Holding Limited (BHL) in order to draw down HNIP (Heat Network Investment Project) grant funding awarded to BCC (Cabinet approval previously received for the grant application) 2) Establish further SPVs to receive future HNIP funding on the same basis as above without the need to return to Cabinet following each successful funding bid.

Will the proposal impact on...	Yes/ No	+ive or -ive	If Yes…	
			Briefly describe impact	Briefly describe Mitigation measures
Emission of Climate Changing Gases?	Yes	+ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in excess of £10m will have significant impact on the development of the heat network, which will deliver energy efficiency and low carbon heat to customers.	
Bristol's resilience to the effects of climate change?	Yes	+ive	While the structure of the companies set out in the report has no direct environmental impact, the use of	

			grant funding in excess of £10m will have significant impact on the development of the heat network, which will improve the energy security and climate resilience of the city by generating heat from a diverse range of low and zero carbon sources at various locations within the city.	
Consumption of non-renewable resources?	Yes	+ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in excess of £10m will have significant impact on the development of the heat network, which will reduce the use of mains gas (a non-renewable fossil fuel) by generating heat from a diverse range of low and zero carbon sources.	
Production, recycling or disposal of waste	Yes	-ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in excess of £10m will have significant impact on the development of the heat network, which will create waste during the initial installation of pipes and energy centres.	Contractors will provide waste management plans and dispose of waste according to waste legislation and the waste hierarchy. Works will be programmed to take place alongside other essential highway works to reduce overall waste.

The appearance of the city?	Yes	+ive/-ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in excess of £10m will have significant impact on the development of the heat network, which will involve some construction works during the initial installation of pipes and energy centres. The completed energy centres will slightly change the appearance of the city, but it may be a positive or negative impact.	Any new construction is likely to be subject to Bristol Planning Policy.
Pollution to land, water, or air?	Yes	+ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in excess of £10m will have significant impact on the development of the heat network, which will reduce the amount of gas burnt to produce heat by generating heat from a diverse range of low and zero carbon sources.	
Wildlife and habitats?	Yes	-ive	While the structure of the companies set out in the report has no direct environmental impact, the use of grant funding in	Ensure areas of construction do not affect any existing wildlife if being constructed in green spaces. Engage with BCC ecology officer to do an ecology survey.

			excess of £10m will have significant impact on the development of the heat network, which will involve some construction works during the initial installation of pipes and energy centres. This may damage habitats and affect wildlife.	The urban environment means any impact is likely to be small. There is a need to comply with environmental permitting law, and any specific environmental legal and regulatory requirements concerning particular works in or near watercourses. Avoiding the disturbance of any contaminated river bed, and managing any invasive species present may be necessary for some works.

Consulted with:

Summary of impacts and Mitigation - <u>to go into the main Cabinet/ Council Report</u>

The significant impacts of this proposal are indirect, but include:

· A reduction in greenhouse gas emissions

· More resilience to heat supply in the city by using a diverse range of heat sources.

· Low carbon heat supply which will aid with achieving carbon neutrality

· Possible highways disruption during installation, leading to a temporary increase traffic congestion

· Waste from removal of existing plant and equipment

· Resources for the manufacture and installation of new plant and equipment.

· Works on or near water.

The proposals include the following measures to mitigate the impacts: Where possible, carry out works as part of BCC capital projects, ensure contractors are well managed and comply with relevant environmental legislation (such as waste legislation).

The net effects of the proposals are positive.

Checklist completed by:

Name:	Aimee Williams
Dept.:	Energy Service
Extension:	74364
Date:	24/01/2020
Verified by	Giles Liddell

Environmental Performance Team	

By virtue of paragraph(s) 3 of Part 1 of Schedule 12A
of the Local Government Act 1972.

Document is Restricted