

## APPENDIX G – OUTLINE BUSINESS CASE TEMPLATE

CHESHIRE & WARRINGTON ENTERPRISE PARTNERSHIP

LOCAL GROWTH FUND BUSINESS CASE TEMPLATE



The Local Growth Fund is awarded on a competitive basis and as such the LEP has to ensure that it is presenting a compelling case to Government and that the projects it submits show a clear rationale and well defined benefits. Further guidance on the Local Growth Fund is available at: -

<https://www.gov.uk/government/publications/growth-deals-initial-guidance-for-local-enterprise-partnerships>

In order for the LEP Executive and others to appraise proposals, all Promoting Organisations are required to complete this Local Growth Fund Business Case Template. In addition to headline project details, the form comprises six sections: -

- B: Strategic Case
- C: Economic Case
- D: Financial Case
- E: Management Case – Delivery
- F: Commercial Case
- G: Evidence and Supporting Information

Please complete the form as fully as possible ensuring that all information requested is included. If there are elements that you are not yet in a position to complete please indicate clearly when this information will be available.

Where additional information is requested, such as location maps or Gantt charts, please supply these as separate documents or files, rather than attempting to embed them within this form.

Please note that questions B6 and C3 are only applicable to Transport Schemes.

Additional information may be requested for projects seeking funding from specific streams of LGF (e.g. FE Skills Capital).

**Note that all project proposals must align to the priorities identified within the LEP's Strategic Economic Plan.**

On completion, please return the form to Rachel Brosnahan at  
Rachel.brosnahan@871candwep.co.uk

## Section A: Scheme Details

This section asks you for basic information on your scheme, including a brief description, type of scheme, scheme location and contact details for further information.

<b>A1: Scheme Name</b>	Crewe Town Centre Network (Heat and Electricity Micro-Grid)
<b>A2: Promoting Organisation</b>	Cheshire East Council
<b>A3. Accountable Body</b>	As above
<b>A4: Main Point of Contact</b>	Dan Griffiths Cheshire East Council Municipal Buildings Earle Street Crewe CW1 2BJ 01270 686916 <a href="mailto:dan.griffiths@cheshireeast.gov.uk">dan.griffiths@cheshireeast.gov.uk</a>
<b>A5: Type of Scheme</b>	<p><b><i>Please indicate the type of scheme being submitted</i></b></p> <p><input type="checkbox"/> Transport infrastructure <input checked="" type="checkbox"/> Regeneration <input type="checkbox"/> Enabler</p>
<b>A6: Scheme Description</b>	<p><b><i>Please give a brief description of your scheme (in no more than 100 words)</i></b></p> <p>This project will deliver a smart energy network in Crewe Town Centre, supporting the strategic priorities of the C&amp;W LEP.</p> <p>The project will create a core micro-grid for heat and energy in Crewe, connected initially to civic buildings but capable of ready expansion to residential and business premises as the town centre regeneration gains pace.</p> <p>Buildings both new and existing will be supplied with resilient, low carbon heat, hot water and power from a core energy centre. The project will demonstrate future fuel infrastructure in an urban context, demonstrating that Cheshire is at the forefront of the Clean Growth transformation.</p>

<b>A7: Total Project Cost</b>	<i>Please indicate the total capital cost of your project</i> <b>£ 2,972,268</b>
<b>A8: LGF Requested</b>	<i>Please confirm the total amount of LGF requested</i> <b>£ 700,000</b> <b>Percentage [ 24%] of total project costs</b>
<b>A9: Geographical Area</b>	<p><i>Please provide a short description of area covered by the Scheme (in no more than 100 words)</i></p> <p>The energy centre hub will be located at Crewe Lifestyle Centre, in the centre of Crewe Town. A sub-surface shared trench containing heat pipework and electrical cabling will connect the Lifestyle Centre to the Council's Municipal Buildings, Lyceum Theatre, Crewe Courthouse and the proposed History Centre.</p> <p>A location map has been supplied (separate document), showing the location of the scheme in relation to the centre of Crewe. The detailed map shows the location of each building that will be connected into the energy network and the location of the network of sub-surface pipework that will be installed during the scheme.</p>

	<p><b>Please select which strategic priorities the scheme aims to support.</b>  <b>Please select all categories that apply.</b></p> <p>The project fulfils the CWLEP Energy Strategy Delivery Plan's ambition to develop the region's energy infrastructure, achieving the Plan's action to support district heat networks (Priority 2/VI). It has been developed in response to CWLEP's Energy &amp; Clean Growth Strategy which acknowledges the need for 'a fresh approach to how energy is generated, transmitted and used locally' in order to achieve the area's growth ambitions.</p> <table border="1" style="width: 100%;"> <tr> <td style="padding: 5px;"> <input checked="" type="checkbox"/> Constellation Partnership  <input type="checkbox"/> Cheshire Science Corridor  <input checked="" type="checkbox"/> Crewe High Growth City  <input type="checkbox"/> Warrington New City  <input type="checkbox"/> Mersey Dee Economic Alliance  <input type="checkbox"/> Other(s), Please specify –         </td> </tr> </table> <p><b>Please provide evidence of how your proposal also aligns with and supports relevant National policies or initiatives.</b></p> <p><b>A10: Alignment to Strategic Economic Plan and National Policies</b></p> <p>Heat networks have been identified by Government as the preferred technology enabling decarbonisation of town centres. Heat Networks "<i>demonstrate a key objective of the Clean Growth Strategy; to help deliver technologies that can lower bills, cut carbon and improve the quality of life for communities across the country</i>".</p> <p>UK Government's report "<i>Clean Growth: Transforming Heating</i>" (December 2018) states that "<i>heating remains the largest source of our greenhouse gas emissions...the way heating is supplied to nearly 24 million homes, businesses and industrial users connected to the gas grid will need to change...ensuring this transition is as smooth as possible represents a major national challenge over the coming years</i>".</p> <p>The Government's strategy has been further clarified in the recently published consultation on Building Regulations strengthening "<i>heat networks...form an important part of our plan in the future of low carbon heat, in particular in cities and high-density areas...It is estimated that around 18% of UK heat will need to come from heat networks by 2050 if the UK is to meet its carbon targets cost-effectively. We expect that heat networks will have a strong role to play in delivering low carbon heat</i>".</p> <p>This project provides an excellent opportunity for this tried and tested technology to be demonstrated in the CWLEP area, suitable to be readily expanded and replicated across the region to meet future Building Regulations.</p>	<input checked="" type="checkbox"/> Constellation Partnership <input type="checkbox"/> Cheshire Science Corridor <input checked="" type="checkbox"/> Crewe High Growth City <input type="checkbox"/> Warrington New City <input type="checkbox"/> Mersey Dee Economic Alliance <input type="checkbox"/> Other(s), Please specify –
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**B: Strategic Case**

This section should set out in more detail the rationale for making the investment and evidence on the strategic fit of the Scheme.

	<p>Committee on Climate Change has stated that “Low-carbon heating is amongst the toughest challenges facing climate policy”. The Committee recently considered a series of alternative pathways for decarbonising heat (Next Steps for UK Heat Policy, 2016) which across all pathways consistently features low carbon heat networks in heat dense areas such as towns and cities as a low-regrets approach.</p> <p>Cheshire East contains a valuable natural energy asset: it is one of only six areas in the UK that have been identified by the British Geological Survey as having the potential to exploit deep geothermal energy.<sup>2</sup> In 2014, CEC commissioned a detailed study into the technical feasibility of a deep geothermal district heating project centred on Leighton West Crewe<sup>3</sup>. Technical analysis proposed the development of a heat network in three phases connecting up to 17 heat nodes, and requiring up to three geothermal wells. Heating-only schemes are likely to be the primary use of the geothermal resource in the Cheshire East area, since the temperature of the geothermal resource is not expected to be sufficient to generate electricity economically.</p> <p>This geothermal resource has the potential to supply low carbon heat to the Leighton West area of Crewe and areas within the town centre via a heat network. It is proposed that this network would be centred upon geothermal wells and an energy centre located on a council-owned site at Leighton West on the western edge of Crewe at the junction of Pym’s Lane with the A530. The geothermal heat network would be phased as follows:</p> <ul style="list-style-type: none"> <li>• Phase 1: Heat network in Leighton West comprising the anchor load customers and other heat loads close to the Leighton Green development.</li> <li>• Phase 2: Town Centre heat network comprising initially a separate network at the town centre (the subject of this business case).</li> <li>• Phase 3: A 2.5km transmission line integrating Phase 1 and 2 networks.</li> </ul> <p>This presents an opportunity for decarbonisation of the Town Centre heat network, with switchover of heat supply to geothermal heat source via connection to the Phase 3 transmission line.</p> <p>Crewe has been proposed as the site of a transport hub for the new HS2 line, with development planned for completion in 2027. Thus, Crewe is undertaking major transformational changes to become HS2 ready. It will offer over 120 hectares of development land in close proximity to the proposed Crewe HS2 Hub Station</p> <p>The Cheshire East Energy Framework sets the Council’s Energy Vision to achieve three goals locally:</p> <ol style="list-style-type: none"> <li>1. Affordable Energy – Putting Residents First.</li> <li>2. Growing Energy Businesses – Developing a local energy economy.</li> <li>3. Independent Energy – Secure, decentralised and locally managed energy services.</li> </ol> <p>The document provides a detailed evidence base for the development of energy-related projects which will deliver the Energy Vision.</p>
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<b>B2: Future LEP Challenges / Opportunities Addressed by Scheme</b>	<p>The LEP's Cheshire and Warrington Energy Strategy sets out the intrinsic role that energy supply plays in the future of the sub-region. The strategy underpins this energy network scheme and is an enabling scheme for the ambitious Crewe Geothermal Resource which could provide a long term zero carbon heat source.</p> <p>The Energy and Clean Growth Strategy is a theme within the Strategic Economic Plan; this scheme will deliver outcomes that deliver against strategic objectives, including improving the resilience of the economy (to changing legislation and decarbonisation requirements) and in delivering innovation into the HS2 area linked to the Constellation Partnership.</p> <p>The LEP's Delivery Strategy also calls for a strategic approach to developing the area's energy infrastructure; this scheme would demonstrate the potential of heat networks at a scale suitable for many different areas of the sub-region, building supply chains and local expertise in this growing technology.</p> <p>All three local authorities in the Cheshire &amp; Warrington LEP area have declared a Climate Emergency and have committed to become net zero carbon in their operations within a relatively short period. In addition, the Cheshire &amp; Warrington Leaders Board has recently signed up to a set of Climate Change Pledges, ranging from a pledge of carbon neutrality, to a pledge to support and promote energy efficient technologies and innovations.</p> <p>This scheme will directly support the Leaders Board and the national move toward sustainable, decarbonised heat. It will enable regeneration by removing the risk of changing legislation and electrical capacity limitations for developers. It will enable fulfilment of the strategic goals contained in the Clean Growth Strategy whilst also demonstrating the commitment of the sub-region to achieving net zero carbon.</p>
<b>B3: Wider Geographic Impact</b>	<p>Heat networks are in the process of implementation in many cities across the UK; however the proposed project would be the first of its type in Cheshire &amp; Warrington. The project would have wide replicability and could be used as a pilot project for the future decarbonisation of towns across the sub-region, the Constellation Partnership and further afield.</p>
<b>B4: Alternative Options</b>	<p>In order to bring this project forward successfully, grant funding will be required from a range of sources (as set out in section D3). Active funding bids are being pursued from HNIP (Government's Heat Network Infrastructure Project) and others; however LGF funding will be required if the project funding assemblage is to be achieved.</p>

<b>B5: Contingency Planning</b>	If this project is unsuccessful, all buildings in the town centre of Crewe will need to transition away from gas connections within the next decade. The Government is clear that the implementation of heat networks is the low regret solution for providing heat in town centres, and that all other solutions are far more costly. There will be an economic penalty if each building owner is to implement such a transition unilaterally.
<b>B6: Policy Fit with LTB Policy Objectives (Transport Schemes Only)</b>	N/A

## C: Economic Case

This section should set out the case for the Scheme in supporting and accelerating the economic growth of Cheshire & Warrington. It is important that the benefits provided by the proposed project take account of issues including deadweight and displacement and as such benefits and outputs should be shown as net.

<b>C1: Job and Wealth Creation and Impact on Skills Across Cheshire &amp; Warrington</b>	<p><b><i>Please indicate (where possible) the scale of direct and indirect employment opportunities being created as a result of implementing this Scheme.</i></b></p> <p>Employment opportunities have been considered on a quantitative and qualitative basis.</p> <p>Three distinct aspects of the project can be distinguished; manufacturing of the components for the scheme, construction of the scheme and finally operation and management/maintenance once the scheme is completed. Supplementary document A sets out the basis of the GVA calculation which provides an assessment of the quantified benefit to jobs and employment. For the operational phase, these benefits have been discounted over 40 years which is the anticipated lifetime of the installation.</p> <p>The unquantified benefits are considerable for this scheme particularly for learning and skills generation. This project will be the first installation of a heat network in the Cheshire and Warrington area; as such it will enable local contractors and skills providers to use to use the scheme in training for installation engineers at all stages of their career. Despite only being a relatively short duration installation (anticipated 12 month builds); this will enable high level skills such as welding to benefit local contractors and apprentices.</p> <p>Once operational, there are very significant opportunities for learners to benefit from this scheme. The project will be the first of its kind in the sub-region and will be highly accessible to learners of all ages particularly those studying STEM subjects. University Technical Colleges and local engineering learners are a particular target for skills and learning benefits in this fast growing technological sector.</p> <p>Indirect employment opportunities resulting from this experience are anticipated to be high as heat network schemes become the norm in providing heat and hot water in town centres and urban areas across the UK.</p> <p>One of the key objectives of this scheme is to provide affordable energy to town centre sites. Reducing and smoothing energy costs results in benefits ranging from health and wellbeing to increased profitability to businesses.</p>
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<b>C2: Growth in GVA</b>	<p><b><i>Please provide an estimate of the impact of your Scheme in growth of Gross Value Added. Indicate how this estimate has been arrived at including details of any impact assessment model that you have used.</i></b></p> <p>Supplementary document A summarises the Gross Value Added calculations for the proposed project. A social impact approach was used to monetise the value of jobs supported, increased employment skills and reputational benefits for tenants. This is based on wellbeing valuation, a methodology that facilitates the monetisation of a range of social outcomes using financial proxies from “social value banks”. This approach has been spearheaded by the UK government and by HACT (a social housing innovator) and is in use across a range of policy contexts. Wellbeing valuation represents the latest thinking on valuation of non-market goods and is the most robust available approach to social impact measurement.</p> <p>The results show a positive social value impact, considering jobs supported, employment skills, and reputational benefits, of circa £95,000 (net present value) discounted over the 40-year project period.</p>
<b>C3: Productivity Benefits to Business</b>	<p><b><i>Please describe how the Scheme will improve travel times, accessibility changes to business, unlocking land for development etc.</i></b></p> <p>As a non-transport led scheme, this proposal will have no impact on travel times or accessibility to businesses. It is however likely that the scheme will have a marked impact on unlocking land for development in the town centre of Crewe.</p> <p>Like many town centres across the sub region, Crewe’s regeneration and future development may be constrained by lack of electrical capacity, particularly in light of removal of gas boiler-led heating systems. Without the heat network, developers will be required to rely on electrical heating and hot water provision with the result that existing electrical capacity becomes restricted. Provision of additional electrical substations can be prohibitively expensive for town centre developers and as such, developments stall and land values drop.</p> <p>The constraints of the electricity network in providing for decarbonised heat have been recognised by the Government and this is one of the main drivers behind their recommendation that heat networks should be the technology of choice for town centres in the future.</p>

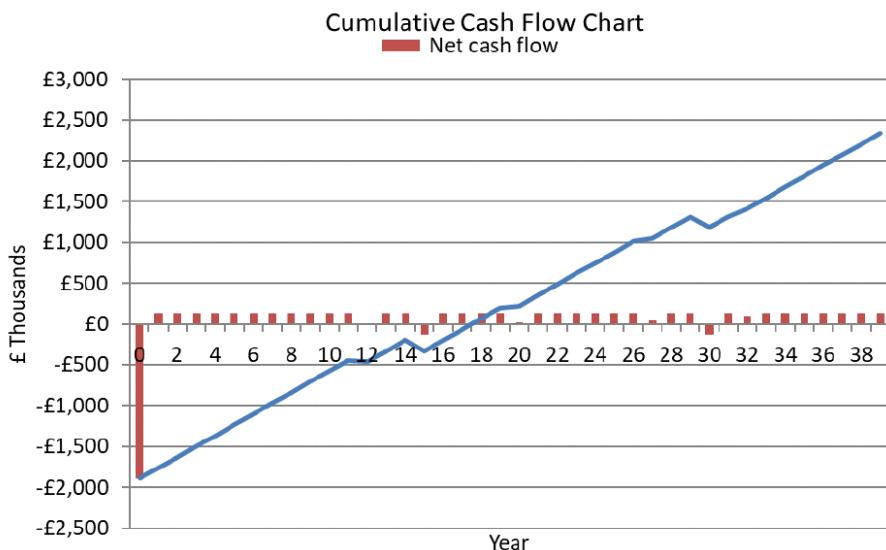
#### C4: Value for Money

**Please provide evidence of how your proposal offers value for money. For a transport scheme this can be a BCR figure. Please state numerically. If no BCR available please provide explanation of when it may be available or other justification (including for non-transport schemes an indication of return on investment or unit costs).**

A return on investment has been calculated for this scheme as part of the outline business case for the project. As the IRR is below the nominal HM Treasury discount rate (6.60% for 30 years and 6.09% thereafter), the scheme delivers a negative net present value (NPV). The 25-year IRR was assessed at 3.0% with a 25-year NPV of -£86k.

Assuming grant funding is received as profiled in section D (Financial Case), the project is affordable on a cash flow basis (no negative cash flows).

Please note that these value for money characteristics have been calculated based on the base case of connection to 4 existing buildings. It is anticipated that additional buildings will be connected from the first year of operation (as set out in the Strategic Case), with the system designed to accommodate additional loads without significant additional capital investment. This will have the effect of materially improving cash flow and improving the IRR.



Although not a transport scheme, a BCR for the scheme has been estimated based on the GVA (see supplementary document A for details of the GVA calculation which includes social value) and the calculated cost model. Based on a 40 year scheme lifetime, the BCR is calculated as 0.07 as shown below.

<b>NPV</b>	<b>£ 921,112.32</b>
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<b>BCR</b>	<b>0.07</b>
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<b>Benefit Description</b>	<b>Benefit Value (£)</b>
GVA	£ 319,400.00
Total Benefit	£ 319,400.00
Discount Rate	2%

<b>Cost Description</b>	<b>Cost Value (£)</b>
Installation	£ 2,972,000.00
OPEX	£ 9,400,000.00
Total Benefit	£12,372,000.00

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<b>C5: Other Outputs</b>	<p><b><i>Please quantify any other benefits or outputs arising from the project, stating whether these are direct or indirect. You will need to provide evidence of how you have arrived at your benefit and output figures.</i></b></p> <p>The following benefits have been identified as part of a qualitative benefits appraisal:</p> <ol style="list-style-type: none"> <li>1. Reducing energy costs to customers</li> <li>2. Energy security and resilience</li> <li>3. Job creation and stimulation of the local economy</li> <li>4. Carbon emission reductions</li> <li>5. Revenue sources for the local authority</li> </ol> <p>Supplementary document A provides a commentary on the socio-economic benefits anticipated as a result of this scheme.</p>
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**If an Appraisal Summary Table (AST) or other Assessment Summary is available for this Scheme, please append to this Information Form.**

**D: Financial Case**

This section is asking you to set out the financial case for your Scheme.

**D1: Scheme Costs**

***Before putting forward a Scheme proposal for potential funding, Scheme promoters should ensure they understand the financial implications of developing the Scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Local Growth Fund contribution.***

***Please provide details of a funding profile (by year) for the Scheme in terms of:***

- ***Total annual cost***
- ***Local Growth Fund funding sought;***
- ***Promoting Organisation contributions;***
- ***Third Party contributions (public and private).***

***If applicable please show capital and revenue costs as separate lines. You may attach the funding profile as a separate annex if required.***

A capital funding profile showing a breakdown of capital expenditure by financial year is provided in Supplementary Document E.

In summary, the table below shows the funding profile by year of the scheme capital expenditure in terms of the items requested above:

	01 Apr 20	01 Apr 21	
		31 Mar 21	31 Mar 22
<b>TOTAL CAPEX</b>	£ 2,972,268	£ 733,908	£ 2,238,361
<b>LGF funding requested</b>	£ 700,000	£ 172,843	£ 527,157
<b>Promoting organisation contributions</b>	£ 300,000	£ 74,076	£ 225,924
<b>3rd party contributions (public &amp; private)</b>	£ 1,972,268	£ 486,989	£ 1,485,279

This project has no revenue cost items in the initial construction period. Following completion of the scheme, revenue income and expenditure including maintenance and operational costs have been estimated over a forty year operational life. This financial model and the inputs associated with it are available if required to demonstrate that the financial implications of developing, managing and operating the scheme have been fully considered and quantified.

	<p><b>D2: Promoting Organisation Contributions</b></p> <p><i>Please provide a commentary on your commitment to spend. Scheme promoters must demonstrate that they can commit a minimum contribution fund of at least one third of the total scheme cost and any cost increases incurred after Final Approval will be borne in full by the promoting authority.</i></p> <p>Cheshire East Council is currently assembling the required funding to progress this project. This funding assemblage includes funding contributions from private investments and public sector grants. It is anticipated that all remaining required funding to progress the scheme will be secured before Final Approval stage.</p> <p>The outline business case produced to date has aimed to make a robust cost appraisal, based on other similar projects elsewhere and the expertise of BEIS as well as specialist consultancy input. Where possible, written quotations have been obtained for specific items, such as energy utility connections, to ensure cost certainty for these more uncertain items. In addition, a full QRA process has been carried out that ensures that an appropriate level of contingency has been attached to the project and all potential risks allowed for in the financial profile. It is understood that any cost increases after final approval cannot be recovered from the Local Growth Fund.</p>
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<p><b>D3: Third Party Contributions and Leverage</b></p>	<p><b>Please provide further details on any third party contributions for your Scheme. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available. Please include contributions of cash and in-kind (e.g. land and buildings). Also provide information on any additional resources that your project will leverage in as a result of the initial investment.</b></p> <p>The table below shows capital funding assemblage for the proposed scheme, broken down by contributor and percentage of capital expenditure sought in each case. A brief commentary is provided on the methodology for securing each funding element and programme impacts.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"><b>TOTAL Capex required</b></th><th style="text-align: right;"><b>£ 2,972,268</b></th><th></th></tr> </thead> <tbody> <tr> <td>1. Future High Streets Fund</td><td style="text-align: right;">£ 1,000,000</td><td style="text-align: right;">34%</td></tr> <tr> <td>2. Cheshire East Council</td><td style="text-align: right;">£ 300,000</td><td style="text-align: right;">10%</td></tr> <tr> <td>3. HNIP &amp; Private Contributions (CEN/OPCO)</td><td style="text-align: right;">£ 972,268</td><td style="text-align: right;">33%</td></tr> <tr style="background-color: #ffff00;"> <td>4. Local Growth Fund</td><td style="text-align: right;">£ 700,000</td><td style="text-align: right;">24%</td></tr> <tr> <td><b>TOTAL FUNDING</b></td><td style="text-align: right;"><b>£ 2,972,268</b></td><td style="text-align: right;"><b>100%</b></td></tr> </tbody> </table> <p>1. Crewe Town Centre has been successful in progressing to the second round of bidding for the Future High Streets Fund. This scheme is an important part of the bid as it underpins the methodology by which sustainable heating in the town centre will be delivered in the future. It will also have a material impact on the street scene at a key gateway location. The outcome of the bid is anticipated in April 2020.</p> <p>2. Cheshire East Council have expressed their intention to invest in the scheme that will deliver decarbonised heat in a key growth location. Formal ratification of the investment will be required and is anticipated in early 2020.</p> <p>3. Heat Network Investment Project (HNIP) funding is currently being promoted by Government. An initial outline bid has been submitted for this scheme and has been successful. Informal discussions with Government indicate that this scheme is considered very favourably due to scale, impact and location. A full bid will now be prepared with a decision expected in January 2020. Private contributions are expected to be received from the appointed operating company (OpCo) under a long term operation contract that will share benefits in line with a service level agreement. The split of HNIP and private contribution is currently being assessed in advance of the HNIP bid submission.</p> <p>4. Local Growth Funding will be fundamental to the success of the scheme in creating confidence and ambition in Crewe's regeneration along a sustainable, low carbon model.</p> <p>Note that a contribution in kind will be made by Cheshire East Council in the form of the land on which the energy centre is to be constructed (adjacent to the existing Crewe Lifestyle Centre). However the land is not available for development as it is within the red line boundary of the Lifestyle Centre, therefore a cost has not been placed against this land value for this proposal.</p>	<b>TOTAL Capex required</b>	<b>£ 2,972,268</b>		1. Future High Streets Fund	£ 1,000,000	34%	2. Cheshire East Council	£ 300,000	10%	3. HNIP & Private Contributions (CEN/OPCO)	£ 972,268	33%	4. Local Growth Fund	£ 700,000	24%	<b>TOTAL FUNDING</b>	<b>£ 2,972,268</b>	<b>100%</b>
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<b>D4: Affordability and Financial</b>	<p><b><i>How resilient is your proposal to changes in financial circumstances? What risk allowance has been applied to the project cost (e.g. QRA / Optimism Bias, Contingency)?</i></b></p> <p><b><i>How will cost overruns be dealt with? How will these costs be shared with any third party funding partners?</i></b></p> <p>Changes in financial circumstances have been considered and fully taken into account in the development of the outline business case.</p> <p>A full QRA has been undertaken for the scheme (see Supplementary document D for detail) which provides a finer grain assessment of contingency risk allowance specific to the project.</p> <p>In addition to the above QRA/contingency allocation, the scheme has also been subject to a separate optimism bias appraisal, carried out by specialist consultants. Utilising a procedure in line with HM Treasury Green Book methodologies, an optimism bias appraisal results in a figure lower than the QRA process. Therefore the QRA sum has been selected as the most appropriate method of allocating a risk budget at this stage of the scheme. A copy of the optimism bias appraisal can be provided on request.</p> <p>As a result of this comprehensive approach to cost and risk quantification, it is considered very unlikely that the overall budget would be overspent. Costs will be closely monitored against forecast and in the event of a forecast overspend, value engineering methods would be used to bring the project within the cost envelope. In the event of costs that cannot be mitigated, any cost overrun would be met by the private and promoting organisations.</p>
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	<p><b>Please provide information on any legacy benefits of your Scheme.</b></p> <p>Legacy benefits of this project are considerable as the scheme outcomes will be a low carbon energy network in Crewe Town Centre with an operating lifetime of approximately 40 years.</p> <p>Some examples of the legacy benefits of this scheme are:</p> <ul style="list-style-type: none"> <li>• <i>Direct monetary benefit</i> – to connecting organisations who will benefit from decarbonised, resilient energy at a long term consistent cost. Benefit will also accrue to potential town centre developers who will be enabled to meet future requirements for low carbon heating without the need to invest in considerable electrical network capacity.</li> <li>• <i>Direct non-monetary benefits</i> – to connecting organisations who will benefit from reduced maintenance and greater resilience, and to local companies/individuals who will increase their skills and employability as a result of their involvement in the scheme.</li> <li>• <i>Indirect benefits</i> – to reputation of Crewe Town Centre in terms of innovation, sustainable energy supply.</li> </ul> <p>A significant legacy benefit will be the ability for the geothermal resource located in Crewe to be realised with a destination heat network capable of expansion and connection to this zero carbon heat source.</p> <p>Once the scheme goes live, a benefits realisation plan will be prepared that will enable the benefits secured by the project to be tracked throughout construction and operation. Specific benefits will also form part of the operating company's service level agreement and construction contractor's contract.</p>
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#### E: Management Case - Delivery

This section is asking you to demonstrate how you intend to assess whether your Scheme is deliverable in the next spending round or at some future date as well as providing assurance that you have the capacity and capability to deliver the project as proposed.

<b>E1: Current Scheme Status</b>	<p><b><i>The scheme is currently at the conceptual stage? Has a business case been developed? What if any internal and external approvals does it require? Is the project reliant on external funding? If so, has a bid for funding been submitted/ was it successful?</i></b></p> <p>The proposed scheme is currently at outline design stage. A five cases business case has been prepared for the scheme following more than 12 months of feasibility and technical design development.</p> <p>The project is dependent on a third party funding assemblage being secured, including LGF support. Funding bids to complete the capital investment required are now being prepared and submitted.</p> <p>The project has already been approved in concept by Cabinet and the funding bids have been approved for submission. Internal approvals will be required for the procurement strategy, award of contract and acceptance of funding support.</p>																								
<b>E2: Project Plan</b>	<p><b><i>Please provide a scheme programme and phasing showing key activities and milestones.</i></b></p> <p>Please see Supplementary document B – scheme programme and phasing for more detail of proposed programme/milestones. The table below summarises the main milestones envisaged however further detail and refinement of construction programme will be undertaken in conjunction with the appointed contractor.</p> <table border="1" data-bbox="465 1185 1335 1511"> <thead> <tr> <th>Milestone</th><th>Start</th><th>Finish</th></tr> </thead> <tbody> <tr> <td>Procurement of DBO contractor</td><td>Jul 20</td><td>Dec 20</td></tr> <tr> <td>Planning permission</td><td>Jan 20</td><td>April 20</td></tr> <tr> <td>Establish operating company (&amp; approval)</td><td>Jan 20</td><td>Jun 20</td></tr> <tr> <td>Design phase</td><td>Dec 20</td><td>Mar 21</td></tr> <tr> <td>Construction phase</td><td>Mar 21</td><td>Mar 22</td></tr> <tr> <td>Construction completion and handover</td><td></td><td>Mar 22</td></tr> <tr> <td>Network operation</td><td>Apr 22</td><td>Apr 62</td></tr> </tbody> </table>	Milestone	Start	Finish	Procurement of DBO contractor	Jul 20	Dec 20	Planning permission	Jan 20	April 20	Establish operating company (& approval)	Jan 20	Jun 20	Design phase	Dec 20	Mar 21	Construction phase	Mar 21	Mar 22	Construction completion and handover		Mar 22	Network operation	Apr 22	Apr 62
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	<p><b><i>Please provide details of the partnership bodies (if any) you plan to work with in the design and delivery of the proposed scheme. This should include a short description of the role and responsibilities of the partnership bodies.</i></b></p> <p>At the feasibility and outline project development stages, a comprehensive options appraisal of different governance and partnership structures was conducted. It was determined that given the ambitions for scheme expansion and decarbonisation in the future, a Public-Private Shared Leadership model is the preferred way forward.</p> <p>Cheshire Energy Networks (CEN) has been established by Cheshire East Council to promote heat networks following initial OJEU compliant procurement of a private sector partner in 2016. CEN was established as a 50/50 joint venture between CEC and Engie as a result of this procurement. The Shareholders Agreement for the joint venture establishment sets a series of principles for commercial strategy but does not prescribe a specific way forward.</p> <p><b>E3: Other Partners Involved in Scheme Delivery</b></p> <p>The proposed Public-Private Shared Leadership delivery structure provides a balance between risk and reward for all parties. In this delivery model, the Council would be the 'asset owner' and take responsibility for owning the assets of the scheme. CEN would take responsibility for overall governance of the project. The advantage of this approach is that it supports future changes to the scheme, for example, expansion of the scheme to deliver energy to additional customers, change of heat source to promote decarbonisation, or expansion to include a link to Crewe's geothermal heat source.</p> <p><b><i>Please provide specific information on any private sector partners.</i></b></p> <p>It is proposed to utilise the existing Cheshire Energy Networks as a special purpose vehicle for the project. This has considerable benefits for the programme and deliverability of the scheme as the need for a lengthy procurement process is negated.</p> <p>As partner in the CEN joint venture, Engie have exceptional experience of installing and operating heat networks, supported by the staff and systems available to do this quickly.</p>
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	<p><b><i>Please provide the proposed project management structure:</i></b></p> <p>The business structure governance components are shown in the project management structure in Supplementary document C.</p> <p><b>E4: Operational Issues</b></p> <p>As part of the business case development, various options for operational governance have been explored. It has been determined that the optimal methodology is for Cheshire Energy Networks (CEN) to set up an operating company who would be responsible for the day to day management and operation of the network. The operating company would be 100% owned by and contracted to, Cheshire Energy Networks.</p>
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	<p><b><i>Please comment on any community support for this Scheme.</i></b></p> <p>Extensive stakeholder consultation has taken place with heat off-takers including Cheshire East Council asset management team, Ministry of Justice and Courthouse building management team. Positive commitment has been secured from these key stakeholders.</p> <p>The Energy Centre that forms the only visible element of the scheme is to be formed in a small extension to the Crewe Lifestyle Centre, on a site that is within the ownership and operational purview of Cheshire East Council.</p> <p>Consultation has also taken place with potential future heat off-takers, including the nearby Crewe Police HQ, the adjacent Christ Church buildings and the design team for the proposed Crewe History Centre (scheduled for completion in 2022). All stakeholders have indicated their support for the scheme and their willingness to connect to the heat network as their buildings become ready to do so.</p> <p><b><i>Has public consultation on the Scheme demonstrated its public acceptability?</i></b></p> <p>No public consultation has taken place at present however the scheme will result in little or no visual intrusion, with the only visible structure being the new Energy Centre, formed as an extension to the existing Lifestyle Centre plant room. It is proposed to utilise a locally focussed design competition to determine the appearance of the new Energy Centre, enabling local artists and art students to participate in the project.</p> <p><b><i>Is the scheme likely to invoke objections or involves damage to the local environment? For example use of greenbelt land, destruction of heritage or cultural landscape including listed buildings, or development in an area with special landscape designations e.g. SSSI, AONB</i></b></p> <p>There will be no such impacts associated with this scheme. The land take for the scheme is minimal and is situated on brownfield, previously used land. The adjacent Christ Church will not be affected by the proposals which will in fact benefit the regeneration of this Grade listed structure, helping to return it to community use.</p>
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	<p><b><i>The principal risks (and risk mitigation) associated with our Scheme:</i></b></p> <p>An up-to-date risk register will be maintained by the project manager to ensure risks are identified and effective mitigation measures are put in place. As part of the governance arrangements, the risk register will be regularly presented to the Project Operations Team, and significant risks presented at the monthly project board. The performance of the project will also be regularly reported in relation to the risk register and any deviation from the anticipated performance promptly reported.</p> <p>During business case development a comprehensive risk register was developed (see Supplementary document D).</p> <p><b>E6: General Risk to Scheme Delivery</b></p> <p>To ensure that financial risk was managed in a robust manner, a full quantified risk assessment (QRA) was undertaken and a cost developed against each potential delivery risk. This QRA cost replaces the typical contingency risk line in the financial budget but ensures that risk is adequately addressed in a finer level of detail than a standard contingency assessment would permit (see Supplementary document D for QRA).</p> <p><b><i>How will any identified risks be managed between Scheme delivery partners?</i></b></p> <p>The risk register assigns risk ‘owners’ who will be responsible for managing that particular risk. Regular reporting as above will ensure that risks are managed and implications fully understood by the governance board.</p>
<p><b>E7: Monitoring and Evaluation</b></p>	<p>During the delivery phase whilst pre-construction and construction is ongoing, a monthly highlight report will be produced including:</p> <ul style="list-style-type: none"> <li>• Status of design and construction</li> <li>• Cumulative progress against expenditure and achievement</li> <li>• Progress photographs and site reports</li> </ul> <p>Following completion and handover, during the operational phase, a quarterly report will be produced to include:</p> <ul style="list-style-type: none"> <li>• Performance against defined KPIs including energy generated against energy sales, carbon savings accrued</li> <li>• Income/sales and forecasts</li> <li>• Operational performance</li> <li>• Costs incurred (planned maintenance and capital)</li> </ul>

<b>F: Commercial Case</b>	This section outlines the proposed deal in relation to the preferred option outlined in the economic case.
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<b>F1: Products and Services</b>	<b>What goods and or services are being procured? E.g. are you going to procure a building contractor and project management support?</b>  A principal contractor will be procured and appointed to be responsible for works required to design, build and install the energy networks and energy centre. The contracts will be novated to the Operating Company once established. An operation and management contractor will also be appointed, however this could be part of a single organisation that could carry out the design, build and operation. The outcomes of the procurement will be the same whether two separate contractors are successful, or a single contractor.
<b>F2: Procurement</b>	<b>Please state how the project will be procured</b>  As a local authority, Cheshire East Council is a 'contracting authority' and subject to EU public procurement law.  The procurement of the scheme will fall below the threshold for OJEU works contracts (Public Contracts Regulations 2015) of £4,551.413. However as a local authority the Council will be guided by expert procurement advice in following good procurement practices. An open procurement exercise will be followed in accordance with Cheshire East Council's procurement regulations to ensure transparency of approach, quality and value.  Three packages of work are proposed as procurement lots: <ol style="list-style-type: none"><li>1. Design and building of the energy network</li><li>2. Operation and maintenance of the energy network</li><li>3. Energy metering and billing services.</li></ol> These lots could be won by a single provider or by different providers, however the contracts for each lot would be individual to ensure that value for money and accountability is appropriate to the different services appointed.
<b>F3: Value for Money</b>	<b>How will you ensure value for money?</b>  The proposed open procurement process will ensure value for money in delivery of the three tender packages. In addition, contracts for each of the lots will be developed that (particularly for lots 2 and 3) will include Service Level Agreements to ensure standards are maintained.  Value for money is a driving factor of Cheshire East Council's

	procurement strategy and will be ensured by the scrutiny of the Cabinet and Members in this matter.
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## G: Evidence and Supporting Information

<b>G1: Evidence</b>	<p><b><i>Please list here and provide copies of all technical reports documenting the evidence base for the Scheme and the Scheme's performance</i></b></p> <p>The following documents provide a complete technical and non-technical summary of the project development to date and provide a fully referenced resource for the information contained in this submission. Where sections of these documents are particularly relevant to the questions within the submission, the content has been placed within one of the supplementary documents for ease of access and reference.</p> <ul style="list-style-type: none"> <li>• Crewe Town Centre Energy Network. Outline Business Case. May 2019.</li> <li>• Detailed Design. Crewe Town Centre Heat Network. March 2019.</li> </ul> <p><b><i>Please include any additional facts which may assist the Local Enterprise Partnership to assess this Scheme against strategic fit and deliverability.</i></b></p> <p>The CO2 saving over 25 years was assessed at 4,400 tCO2, with an annual average saving of 176tCO2 (compared to the 'counterfactual' of individual gas boilers).</p>
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