

**Meeting date:** 13 February 2020

**Report to:** Full Cabinet



**Subject/report title:** Solihull Town Centre Low Carbon Energy Network - Outline Business Case

**Report from:** Cabinet Portfolio Holder for Climate Change, Planning and Housing

**Report author/lead contact officer:** Alan Brown - Assistant Director, Growth & Development  
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**Wards affected:**

- All Wards |  Bickenhill |  Blythe |  Castle Bromwich |  Chelmsley Wood |  
 Dorridge/Hockley Heath |  Elmdon |  Kingshurst/Fordbridge |  Knowle |  
 Lyndon |  Meriden |  Olton |  Shirley East |  Shirley South |  
 Shirley West |  Silhill |  Smith's Wood |  St Alphege

**Public/private report:** Public

**Exempt by virtue of paragraph:**

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**1. Purpose of Report**

- 1.1 To update Cabinet on the development of a Low Carbon Energy Network for Solihull Town Centre including the emerging Outline Business Case for the scheme; identifying potential delivery options and funding solutions.

**2. Decision(s) recommended**

2.1 Cabinet is asked to:

- a) Approve the principal findings of the Outline Business Case as set out in this report in Section 3.
- b) Authorise the Assistant Director, Highways & Environment and the Director of Resources & Deputy Chief Executive to:
  - Submit an Outline Business Case (OBC) to the West Midlands Combined Authority (WMCA), to seek and accept funding up to £2m to develop the scheme through the Commercialisation phase into a Full Business Case.

- Submit a grant funding application for commercialisation and construction (capital) funding to the Heat Network Investment Project (HNIP).
  - Should the above application(s) be successful, to sign any contractual arrangements associated with the above funding in conjunction with the relevant Cabinet Member.
- c) Agree the proposed commercial delivery model, procurement strategy and funding strategy such that commercialisation work may commence to move from Outline Business Case to Full Business Case as set out in Section 3.44 – 3.58.
- d) Agree the proposed use of up to £240,000 spend at risk for a period of 6 months as detailed at paragraphs 6.4.1 in order to progress the scheme in advance of WMCA approval of the OBC and an offer of suitable funding being received from the Heat Network Investment Project (HNIP).
- e) Approve the preparation and submission of an Outline Planning Application for the Energy Centre.

### **3. Matters for Consideration?**

- 3.1 The UK Government committed to net zero greenhouse gas emissions by 2050 in June 2019 in response to recommendations from the Committee on Climate Change ‘Net Zero – the UK’s contribution to stopping global warming’ and the Intergovernmental Panel on Climate Change’s special report on the need to further limit warming above pre-industrial levels ‘Global Warming of 1.5°C’.
- 3.2 In October 2019, Members of Solihull MBC unanimously supported the recognition of a climate change emergency and that the Council should seek to minimise the environmental impacts of its own activities as well as contribute to the improvement of the wider environment through local action.
- 3.3 Activity is now underway to determine a Carbon Budget for Solihull Council with clear targets for annual reductions in CO<sub>2</sub> and to establish an Energy Framework which will drive the delivery of a low carbon borough.

#### **How can a Town Centre Energy Network help?**

- 3.4 Emissions from heat are the single biggest contributor to UK emissions, accounting for over 40% energy consumption with the majority of buildings and industrial processes using fossil fuels to generate heat. There are over 400,000 tonnes of CO<sub>2</sub>e emissions from heating in Solihull borough; this is almost 30% of Solihull’s total emissions.
- 3.5 Carbon emissions from heating can be reduced in two ways: firstly, by reducing heat demand via energy efficiency measures and secondly switching the fuel required for heating from fossil fuels to low carbon or renewable alternatives. The town centre energy network primarily focuses on supporting the second of these two methods, although the network will also encourage efficient heat consumption in connected buildings.

- 3.6 The UK's Clean Growth Strategy suggests heat networks could meet 17% of heat demand in homes and up to 24% of heat demand in business and public-sector buildings by 2050. The role of heat networks in meeting decarbonisation targets is further echoed in the Committee on Climate Change report.
- 3.7 Decarbonising heat can be prohibitively expensive for buildings on an individual level. Low carbon or renewable alternatives are higher cost to retrofit than fossil fuel based systems (most commonly gas boilers), or are limited in their application due to the need for scale in heat demand. Heating retrofit can also be very disruptive to occupants.
- 3.8 A town centre energy network provides a unique opportunity for existing buildings and new development to benefit from low carbon heat generation with minimal disruption, and in a cost effective manner.
- 3.9 The aim of the town centre energy network is therefore to deliver short and long term carbon savings, making a material contribution to the climate emergency and as well as providing good value to customers.

### **Developing the Energy Network**

- 3.10 All phases of project development have been supported by BEIS Heat Network Delivery Unit (HNDU) funding and follow the department's best practice guidance.
- 3.11 The project development phases have been defined by HNDU and the following phases have now been completed:
- a) Heat Mapping and Masterplanning
  - b) Detailed Feasibility
  - c) Detailed Project Development.
- 3.12 Both Cabinet (9<sup>th</sup> August 2018) and EDMG Scrutiny (5<sup>th</sup> March 2019) have previously received reports on the Detailed Feasibility stage and have endorsed the continuation of the project through to this Detailed Project Development phase.
- 3.13 The guiding principles for the Detailed Project Development phase have been to identify a technically, economically and commercially deliverable energy network scheme, furthering the work of the previous feasibility study.
- 3.14 The Critical Success Factors (CSFs), sought from the network have been determined by the project team and are:
- Carbon dioxide (CO<sub>2</sub>e) savings, entire network against business as usual
  - Carbon dioxide savings, for Solihull Council against business as usual
  - Value for money heat supply compared to existing customer heat supply costs
  - Low carbon heat generation with a minimum 50% low carbon heat
  - Zero cost to council over project lifetime
- 3.15 Further benefits identified include:
- Significant revenue over project lifetime

- Environmental benefits including CO<sub>2</sub>e reductions and air quality improvements
- Provision of low carbon affordable energy to SMBC, schools and businesses
- Innovative project with national demonstration benefits
- Energy centre resilience and the potential for SMART operation of scheme

3.16 Within this latest project phase, a specialist consultant team has undertaken further technical investigation to de-risk key elements of network design, carried out stakeholder engagement; further securing potential customer interest; worked with the Council's Project Steering Group to select a preferred delivery model and procurement strategy, and determined value for money and overall financial viability through full financial modelling.

3.17 In order to proceed to the next (Commercialisation) phase of the project, further funding needs to be sought through the submission of a robust Outline Business Case to WMCA and grant application to the Heat Networks Investment Project.

### **Outline Business Case (OBC)**

3.18 The purpose of the OBC is to provide a detailed appraisal of options including a preferred option which demonstrates Value for Money. The five case model is an approach for developing business cases recommended by HM Treasury and the key headlines are set out below:

### **Strategic Case**

3.19 The town centre energy network directly supports a number of strategic priorities, locally, regionally and nationally:

- a) Solihull Council: The corporate priority - Planning and delivery of Solihull's low carbon future includes the Climate Change Prospectus which promotes a more coordinated approach to capitalising on new markets for green technologies, goods and services and supporting Solihull's transition to a low carbon, sustainable economy.
- b) GBSLEP Low Carbon Energy Plan Vision: 'become a leading low carbon economy through the modernisation, decarbonisation and decentralisation of its energy, waste and transport systems and the buildings that support its businesses, people and places'.
- c) The WMCA SEP objective on environment: specifically 'improved competitiveness through energy and resource efficiency, stimulating new technology and businesses'.
- d) A Regional Energy Strategy covering the West Midlands Combined Authority area was published November 2018 and gives greater local context for how local authorities in the Combined Authority area will work to achieve a low carbon vision. This project specifically supports local delivery against two key Regional Energy Strategy objectives by contributing to reducing regional carbon emissions and creating regional energy infrastructure that adds to GVA.

## **Economic Case**

3.20 There are a number of components that make up the energy network. Options for each component have been assessed and compared:

- a) The choice of heat supply source (technology);
- b) The buildings (customers) to be connected and in which order (phasing);
- c) The energy network route (pipes connecting the buildings);
- d) The location, size and scale of the energy centre and the dimension of the pipes to accommodate future expansion of the network.

3.21 The preferred option in each case must represent the best value for money, having regard to the Critical Success Factors of the project.

### *Heat Supply*

3.22 A wide range of heat supply options were identified and appraised as part of a long list assessment. The assessment considered how well the options could meet the CSFs for the scheme.

3.23 A heat supply options framework was then used to select a short list. This included different technological solutions and an assessment of the 'business as usual' (BAU) option to act as a baseline against which value for money was assessed. This comparison assumed that all heat supply options would supply the same customer base.

3.24 The short list was:

- i. Open loop Ground Source Heat Pump (GSHP) and Gas Combined Heat and Power (gas CHP)
- ii. Air Source Heat Pump (ASHP) and gas CHP; and
- iii. ASHP, gas CHP and closed loop GSHP.

3.25 The open loop GSHP was initially selected as the preferred heat supply option but in order to de-risk this option (to understand whether there was enough water and at sufficient temperature) a trial borehole was commissioned.

3.26 An Environment Agency requirement of an open loop system is that the water extraction must be non-consumptive i.e. the same volume of water extracted must be recharged into the ground. Therefore, at the end of the drilling process a test was completed to establish the rate in which the water can be recharged.

3.27 Unfortunately whilst the trial borehole indicated a potentially adequate heat source (i.e. water volume), the recharge rate back into the ground was identified to be severely limiting at 5 litres per second. The scheme would therefore require many more recharge boreholes than originally predicted, with significant spacing between.

- 3.28 The capital cost, land requirement and pumping energy requirement meant that option 1, the open loop GSHP, was no longer economic.
- 3.29 Due to the challenging ground conditions encountered during drilling the trial borehole and significant impact on the park, option 3, the ASHP, gas CHP and **closed** loop GSHP option was also discounted (far more boreholes are required with a closed loop system than open loop).
- 3.30 Option 2, the ASHP and gas CHP has been identified as the preferred low carbon heat supply option, and economic modelling confirmed this option meets all the CSFs.

#### *Customers*

- 3.31 The potential customers identified in the feasibility work have been further engaged and the list refined based on location, current energy requirements and their interest in connection. This assessment has divided the customers into three phases:
- a) Phase 1 - Public sector building connections and key strategic businesses on Homer Road ("Phase 1 Customers")
  - b) Phase 2 – extends to additional private sector customers once the district heating network is up and running and can demonstrate viability.
  - c) Phase 3 – connects to new developments (post 2022) proposed in the Solihull Town Centre Masterplan.
- 3.32 Ten heat supply connections are included in Phase 1 including one new development and four private wire (electricity supply) connections.

#### *Energy network route*

- 3.33 The preferred network route (to supply the phase 1 customers) identified at the end of the feasibility stage of the project, was further reviewed and detailed surveys undertaken to identify underground constraints in the network route.
- 3.34 Significant constraints were confirmed at the intersection of Homer Road and Herbert Road and therefore an alternative network route has been proposed in consultation with the Highways team (see Private Appendix 1).

#### *Size and scale of the energy network*

- 3.35 Phase 1 will allow the Council to implement a financially viable and deliverable Energy Network. The expansion of the network into Phases 2 and 3 is subject to delivery of the town centre masterplan, including planned public realm works which would facilitate installation of a heat main through pedestrianised areas of the town centre at the same time as other construction.
- 3.36 The Phase 1 design for the Energy Centre specifies a 1.7 megawatt (MW) ASHP and 1,560 kilowatt electrical (kWe) gas CHP plus auxiliary gas boilers and thermal storage. The energy centre has sufficient space to house additional heat and power supply plant to deliver supply to customers in Phases 2 and 3. The capacity of the energy centre can therefore be increased in line with growth in network loads.

3.37 The network pipes going north from the energy centre have been sized to accommodate expansion of the network through Phases 2 and 3; this northerly network spine can serve over four times the Phase 1 heat demand.

Economic Assessment

3.38 Careful consideration has been given to the efficient operation of the scheme in the short and medium term.

3.39 The capital costs of futureproofing is included in the Phase 1 capital cost, however the associated revenue costs are not. The project economics have the potential to improve materially as the future phases are implemented.

3.40 Base case assumptions have been modelled on:

- a) The rate of renewable heat subsidy (currently based on Renewable Heat Incentive<sup>1</sup>).
- b) An affordable heat sale price based upon customer counterfactual (business as usual) costs for gas, current heating plant operation, maintenance and replacement.
- c) No grant funding.

3.41 The economics and CO<sub>2</sub>e savings delivered by Phase 1 of the proposed scheme are summarised below:

<b>Phase 1 only</b>	<b>25 years</b>	<b>40 years</b>
Capital cost	£13.513 m	
Internal Rate of Return	2.2%	3.1%
Simple payback	19 years	22 years
Carbon savings, tonnes CO <sub>2</sub> e	34,115	47,833
Social Internal Rate of Return	3.8%	4.7%

3.42 Phase 1, 2 and 3 combined have the potential to deliver the following overall carbon saving and social return:

<b>Phases 1, 2 and 3</b>	<b>25 years</b>	<b>40 years</b>
Carbon savings, tonnes CO <sub>2</sub> e	152,317	243,108
Social Internal Rate of Return	9.8%	10.1%

3.43 Based on the base case assumptions, economic cash flow modelling indicates that the capital, operational and replacement costs of the network can be recouped via heat and power sales over both a 25 and 40 year period.

<sup>1</sup> The Renewable Heat Incentive (RHI) helps businesses, public sector and non-profit organisations meet the cost of installing renewable heat technologies. Eligible installations receive quarterly payments over 20 years based on the amount of heat generated. The current scheme closes in March 2021. A Low Carbon Heat Roadmap is to be published summer 2020 – announcement of a replacement scheme or subsidy to support heat decarbonisation is expected.

## Commercial Case (Delivery Options)

- 3.44 The economic case has shown that to deliver the Council's objective of delivering a low carbon energy network, the returns on capital invested are not sufficient to satisfy a private sector investor. As a result the Public Sector Led Approach has been selected.
- 3.45 SMBC has a long term strategic interest in the prosperity and economic development of Solihull Town Centre. It is therefore in a unique position and ideally suited to take a long-term view and drive the project forward through a Public Sector Led delivery approach. This approach would allow SMBC to have a controlling influence to deliver on the following project priorities:
- develop efficient and low carbon infrastructure that enables and maximises the opportunity for low carbon economic growth;
  - generate affordable heat and power for the community;
  - generate CO<sub>2</sub>e and energy savings for SMBC via network layout and energy generation technologies;
  - an energy centre which also serves as a community space and provides educational benefits.
- 3.46 A Public Sector Led delivery approach is commonly being seen in the market with many local authorities recognising the benefits that can be gained through taking control over the scope and direction of the project. Alongside this, district heating projects can provide an attractive, secure income stream which can be used to further network expansion and heat decarbonisation.
- 3.47 It is recognised however that a Public Sector Led approach will also require a level of grant funding through a combination of Heat Network Investment Project (HNIP) and WMCA grant funding. The amount of grant available to the project is limited by State Aid rules (see Private Appendix 2 for more detail).
- 3.48 The Public Sector Led delivery approach involves SMBC driving forward the Project itself and directly assuming several key roles:
- **Promotion** of the scheme to key stakeholders, responsibility for funding applications and procurement of service providers;
  - **Customer** of the scheme, connecting Council building assets.
  - **Governance** through its 100% ownership of the network assets, although there will likely be some delegations of authority between SMBC and the scheme operator.
  - **Funding** through a combination of grant (subject to application) and debt.
  - **Asset Ownership:** the Council will be the 100% owner of the network assets, both generation and distribution.
  - **Land Ownership**, the proposed site for the Energy Centre
  - **Sale of Energy** to scheme customers, via the established delivery company.
  - **Supplier of Last Resort:** the Council will be required to 'underwrite' the obligations of the delivery vehicle and act as supplier of last resort.
- 3.49 A separate delivery vehicle – a Special Purpose Vehicle – should be established to

help ring fence risk, provide flexibility for third party transactions and enable the sale of electricity via private wire exemptions in the Electricity Act 1989. This SPV would be set up prior to SMBC appointing design, construction, operation, billing and metering contractors. Additionally, the Heat Network Investment Project (HNIP) from which grant funding is sought requires that local authority-controlled projects are off the National Accounts if project capex is greater than £2.4m.

- 3.50 In terms of delivery strategy, the Council does not have the capability or internal resource to deliver the energy network 'in-house' and therefore external contractor(s) and/or suppliers will need to be procured to carry out design and build, operation and maintenance, and billing and metering services; the contract durations will be refined in the commercialisation phase.
- 3.51 The Council is likely to benefit from the opportunity to engage in discussions with bidders around various parts of the bid (including the technical, commercial and legal aspects of their submissions) and therefore a Competitive Dialogue procedure is proposed.
- 3.52 Key commercial risks which the commercialisation phase will seek to mitigate through contractual agreement include:
- Securing Phase 1 Customer 'buy-in' (the financial viability of the Project hinges on securing the agreement of the phase 1 customers to connect to the district heat and private wire networks)
  - Negotiating appropriate contract terms and property rights with customers (viability relies on the Phase 1 Customers remaining connected and taking supply from the district energy network for a long term period)
  - Poor operational strategy (and scheduling of plant) that does not realise the maximum carbon and economic benefit of the network or optimise efficiency
  - Plant and network failures (mitigation and management of).

### **Financial Case**

- 3.53 As set out above a Council-owned SPV is proposed to deliver the heat network on the basis that the forecast Phase 1 financial return is considered too low to attract private sector investment.
- 3.54 The Council-owned SPV will be required to fund all project capital costs and own the full heat network infrastructure, including both the energy centre infrastructure and heat distribution network infrastructure. The SPV will fund the c. £13.5m total capital costs for the network and seek a combination of potential funding sources, including:
- a) HNIP grant funding
  - b) WMCA grant funding
  - c) SMBC funding (equity investment and/or lending to the SPV)
- 3.55 The estimated capital cost of the project and the proportion of funding that may be met from grant/ equity and commercial debt is summarised in Private Appendix 2.

- 3.56 The level of funding that can be provided to the SPV through grant or equity is limited by an assessment of the level of State Aid that the project can bear. For this project the calculation has been made on the basis of the available guidance and with support from the professional consultancy team. It will be subject to further review through the grant application process and so it should be noted that it is subject to change.
- 3.57 Based on the forecast cash flows generated by the project and applying a commercial interest rate to any debt funding lent to the SPV (based on guidance), there is a maximum level of debt that the project can repay on an annuity repayment structure (assuming repayment over 40 years). This is summarised in Private Appendix 3. There is a funding gap which will need to be met by grant funding and/or equity investment, however based on the State Aid calculation there is more than sufficient headroom in allowable aid to provide at least the minimum grant / equity funding.
- 3.58 In summary, the project is well placed to apply for grant funding support. At this stage of the project, and subject to further refinement in the next phase, the low-but-positive project IRR of 2.95% (before tax costs and excluding any available grant funding) supports the Council-owned SPV structure and also meets the HNIP grant eligibility criteria.

### **Management Case**

- 3.59 Solihull Council has a track record of delivery major infrastructure works and has put in place a dedicated internal delivery team supported by specialist technical, financial and commercial advisors to develop the project. The Council will maintain this internal and external support through the commercialisation stage and into delivery.
- 3.60 During the commercialisation stage the project team will work to refine the delivery approach, secure the required sources of funding and develop procurement documentation and evaluation procedures that will enable the Council's strategic objectives for the project to be met. Key activities will include:
- Secure grant funding from WMCA
  - Secure grant funding from HNIP
  - Procurement of external project management
  - Procurement of technical, commercial and legal advisors for commercialisation and contract delivery phases.
  - Pre-planning consultation and submission of outline planning application for the Energy Centre
  - Secure Heads of Terms with Phase 1 customers
  - Pre-procurement market engagement for design and build, operate and maintain contractors
  - Development of procurement documentation, contracts and evaluation strategy in accordance with the competitive dialogue procedure.
  - Preparation of heat sale agreements, customer connection agreements and power purchase agreements.
- 3.61 The total cost of commercialisation activities will be sought via grant funding.
- 3.62 An ongoing project management resource is required to support the scheme through

to Full Business Case and will require the appointment of technical, commercial and legal specialists to advise on contracts, tender preparation including Key Performance Indicators, and to support the procurement process. The team will continue to work closely with other projects and business areas, including Leisure Services, Highways, Planning and the internal architectural team (Building Design Studio) to maximise project benefits to the local community. SMBC Legal, Finance, Procurement and Property teams will continue to play a key role during Commercialisation.

- 3.63 Building on work undertaken so far, further engagement with customers will be undertaken. The aim will be to agree Heads of Terms for heat and power supply to key loads prior to commencing the procurement process. Meetings to discuss the draft Heads of Terms for heat supply and agree assumptions against which customer heat sale tariff offers have already commenced, with Letters of Intent being secured.
- 3.64 Subject to Cabinet approval it is expected that the Project will be delivered through a Special Purpose Vehicle (SPV) which is wholly owned by the Council. The SPV will be established prior to signature of a Design, Build, Operate and Maintain contract with a private sector service provider. Full governance arrangements will be established for the SPV, including articles of associations, terms of operation and reporting requirements; however it is anticipated that four Council representatives will be appointed as Directors of the SPV. The Directors will be responsible for ensuring the smooth operation of the DBOM contract through a Contract Manager and that reporting requirements, particularly in relation to finance and carbon are fulfilled.
- 3.65 The risk register for the project will be maintained through the Commercialisation phase and into operation. During the commercialisation phase it will be the responsibility of the project team to monitor, report and escalate risks as appropriate.

#### **4. What options have been considered and what is the evidence telling us about them?**

- 4.1 An extensive options appraisal of the heat supply technology opportunities has been undertaken to inform development of the preferred heat supply strategy and commercial delivery model.
- 4.2 Business as usual is not recommended. The Council have declared a commitment to respond to the Climate Emergency through the reduction of emissions from its own assets and operations to net zero by 2030. If the network does not progress, another approach to heat decarbonisation in council buildings will need to be identified and with limited potential to achieve the wider benefits that the network offers. The cost of achieving net zero at an individual building level would need to be assessed.
- 4.3 Other public sector building occupiers and commercial occupiers also face increasing pressure to reduce their environmental impact. With the UK net zero by 2050 commitment and WMCA commitment by 2041, building owners and occupiers should expect energy policy to change considerably to favour deep energy efficiency investments and the switch to low or zero carbon heating. By developing a local network in the town centre, Solihull is securing a low carbon heat economy for town centre businesses and service providers.

## 5. Reasons for recommending the preferred option

- 5.1 The Town Centre Low Carbon Energy Network presents a significant opportunity for heat decarbonisation, and a scale of carbon emissions reduction that will prove difficult to achieve affordably at an individual building level. The preferred option will deliver carbon savings through a combination of Air Source Heat Pump and gas Combined Heat and Power heat generation.
- 5.2 Potential Phase 1 network customers are supportive, with Letters of Intent currently being secured based on draft Heads of Terms.
- 5.3 Whilst there have been changes to the heat supply solution due to non-viability of the sandstone aquifer as a source of heat, work undertaken during the Detailed Project Development phase illustrates a viable investment option that fits with the strategic objectives of Solihull Council; meets identified Critical Success Factors, including significant carbon reduction for the Council and network customers; is commercially viable; affordable subject to available grant funding, and deliverable.

### Next steps

- 5.4 Subject to Cabinet approval to proceed with the recommendations above, the following activity milestones are proposed:
- a) Outline Business Case submission to the WMCA – March 2020
  - b) Heat Network Investment Project funding application submission – April 2020
  - c) Commercialisation work commences – April 2020
  - d) Outline Planning submission for Energy Centre – Summer 2020
- 5.5 Officers will be reporting to EDMG Scrutiny in March 2020 to enable detailed consideration of the opportunities being sought through the next Commercialisation phase.

## 6. Implications and Considerations

- 6.1 How the proposals in this report contribute to the delivery of Council Plan priorities:

Priority:	Contribution:
Securing inclusive economic growth.	One of the key aspects of delivering a low carbon future is to move towards net zero without leaving anyone behind. This will be a key aspect of the Low Carbon Energy Framework, and will be embedded in any carbon reduction action including the Town Centre Heat Network. The Energy Network has been designed to allow for future expansion enabling a greater part of the community to benefit, plus the opportunity to utilise the SPV vehicle for other energy investment projects.
Planning & delivery for Solihull's low carbon future (to include biodiversity)	The UK commitment to net zero emissions by 2050

implications).	<p>and WMCA 2041 ambition supports the need to commence the switch from fossil fuels to low carbon or renewable heat alternatives. The developing energy framework will establish a net Zero Action Plan which is part of Solihull's response to the Climate Emergency and will support progress against the net zero targets of 2030 for the Council's own emissions and 2041 for the Borough's emissions as a whole.</p> <p>The Town Centre Energy Network will be a key contributor to the above action plan, supporting long term affordable and low carbon heat supply for town centre occupiers and future connection potential for new build. Through the Energy Network local air quality improvement opportunities are sought via the removal of individual heating plant in connected buildings. This also represents an energy initiative which brings education opportunities to the town centre and builds pride in Solihull's low carbon commitment.</p>
Managing demand and expectation for public services.	There is a high level of public expectation on Local Authorities to act decisively on Climate Change. The Town Centre Energy Network will support this by providing long term affordable and low carbon heat supply for town centre occupiers and future connection potential for new build.
Developing our approach to services for adults and children with complex needs.	None
Making the best use of our people and physical assets.	The Energy Network will enable the removal of individual heating plant in connected buildings and allow for a number of key Council assets to meet decarbonisation targets and lead the way in our response to a low carbon future.

6.2 Implications for children and young people, vulnerable groups and particular communities:

- 6.2.1 There are significant education opportunities for children and the wider community. Educational events have been held during the Detailed Project Development phase, including student site visits during borehole construction and a borough-wide STEM learning event for children aged 15-18.
- 6.2.2 The proposed location of the Energy Centre presents a unique opportunity to engage members of the public and local community in low carbon and renewable energy initiatives and design considerations include educational resources and community facilities with a sustainable energy theme e.g. electric vehicle charging points.

Discussions are also underway with Leisure Services on the potential integration of leisure offering as part of the Energy Centre building.

6.2.3 The procurement of technical, commercial and legal advisors for commercialisation and contract delivery phases, and the DBOM procurement, will contain a requirement for added Social Value to be delivered in the local area and form an integral part of evaluation. This will ensure that the project delivers additional benefits to the local communities and areas in the delivery stages – not just once completed. The Social Value will be measured against the national Social Value Themes, Outcomes and Measures that can be found here: <https://socialvalueportal.com/national-toms/>.

### 6.3 Consultation and Scrutiny:

6.3.1 The project team has consulted with a range of key stakeholders throughout Detailed Project Development. Activity has included:

- a) Communications and PR activities, including creation of a council webpage and Stay Connected bulletin dedicated to the energy network. Members of the project team have been interviewed by local press reporters with positive press coverage.
- b) A series of Public Information Sessions have been hosted at Tudor Grange Leisure Centre and The Core. These have been specifically timed alongside the commencing and concluding of the borehole works.
- c) Site visits have been carried out with potential Phase 1 network customers to confirm network connection viability. Follow up meetings with Phase 1 network customers have then been undertaken with positive feedback from senior representatives.
- d) A report on the feasibility study results and project next steps was presented to Cabinet in August 2018.
- e) Ward Member briefings have taken place including presentations and email communications.
- f) Portfolio Holder briefings have been held at various project intervals.
- g) An EDMG Scrutiny Board meeting was attended in March 2019 to update the Board on the emerging findings of work during Detailed Project Development. The project team will be attending a further EDMG Scrutiny Board in March 2020 to facilitate input into the Commercialisation phase.

### 6.4 Financial implications:

6.4.1 This report seeks approval to submit an Outline Business Case to the WMCA in order to secure WMCA funding of up to £2m to develop and progress the Solihull Town Centre Low Carbon Energy Network project through the Commercialisation phase and to secure Heat Network Investment Project funding.

The financial implications associated with the Commercialisation phase which form the basis of the OBC submission are set out below:

- a) Urgent work is required on specific Commercialisation tasks and an estimated timeline for expenditure has been prepared. The total value of this work will not exceed £2m.
- b) The total cost of Commercialisation activities will be sought from grant sources.
- c) Notification of funding award from both HNIP and WMCA is expected by the end of June 2020, with allowance of a further month (July) for signing funding agreements.
- d) It is anticipated that £240,000 expenditure at risk will be required in order to progress the scheme in advance of WMCA / HNIP funding confirmation. This work will include advancing the Outline Planning Application for the Energy Centre and securing Heads of Terms with the Phase 1 customers. It will also include SMBC staff costs, external project management support and an appropriate contingency sum. Full Cabinet approved the principle of incurring expenditure 'at risk' against the UKC Programme up to £5m on 20<sup>th</sup> June 2019. The risk is to be underwritten by the Business Rates Windfall Reserve.

6.4.2 This report also seeks to provide assurance that the financial case associated with the ultimate delivery of the heat network is robust and financially sound. The financial implications associated with the delivery phase (i.e. network investment) are detailed below and will be refined as part of the Commercialisation phase and incorporated within the Full Business Case:

- a) Financial aspects of the project associated with the capital investment requirement are set out in the main body of the report. In summary the capital costs are forecast to be £13.5m. The maximum allowable state aid is sufficient to gap fund the project and can be provided from grant and / or equity. The balance must be funded from debt provided on appropriate commercial terms. All grants are subject to a successful application and viable grant offer.
- b) The level of HNIP grant applied for must be less than 50% of the eligible capital cost. Grant to support capital investment will be the subject of a bid to the WMCA; equity could also be provided by the Council.
- c) Subject to successful grant applications, the remaining funding needed to support capital investment needs to be provided on a commercial basis. The Council could provide this funding and receive a return that (on current rates) would be higher than the interest rate it would be required to pay to source the funds from the PWLB.
- d) As set out in the report, the state aid calculation is subject to review and could be amended to a lower figure. However as shown there is sufficient scope in the calculation for it to be revised down significantly before it would reach a level that would make the project potentially financially unviable.

6.5 Legal implications:

6.5.1 The following key legal implications have been considered during Detailed Project Development and in the selection of the preferred delivery model for the scheme.

- a) The proposed site of the Energy Centre is within the leased area of Tudor Grange Leisure Centre. A draft Deed of Surrender of this land is being prepared by Legal Services and Everyone Active have confirmed they are willing to consider this land surrender.
- b) Grant funding is subject to State Aid thresholds and the Council is responsible for assessing eligibility in accordance with State Aid rules for district heating projects. Advice has been sought from appointed legal advisors Pinsent Masons and financial advisors QMPF. The State Aid calculation will be further refined during commercialisation, with involvement of legal advisors.
- c) The preferred delivery model and funding strategy for the town centre energy network will require the incorporation of a Special Purpose Vehicle (SPV). The Council will be required to 'underwrite' the obligations of the SPV and act as supplier of last resort – at least for a period of time.

6.5.2 The SPV will be the main contracting party for the design, build, operate and maintenance contracts required to deliver the District Heat Network and metering and billing aspects of the energy network. It will also be responsible for energy procurement for the Energy Centre (gas and electricity) and contract with each customer in the form of a connection and heat (and electricity where applicable) supply agreement. These contracts will be developed during the Commercialisation phase of the project.

6.6 Risk implications:

6.6.1 A risk register for the scheme is maintained in accordance with the UK Central Project Management Framework and corporate risk management process.

6.7 Statutory Equality Duty:

6.7.1 The Equality and Diversity Team have confirmed that a fair treatment assessment is not required at this point in time; however this will be reviewed during the next stage of the project particularly with relation to the energy centre design and planning process.

## **7. List of appendices referred to**

7.1 Private Appendix 1 – Phase 1 network proposed route

7.2 Private Appendix 2 - Phase 1 economics of preferred option and financial model headlines

## **8. Background papers used to compile this report**

8.1 None

## **9. List of other relevant documents**

9.1 None