

Meeting date: 9th March 2023

Report to: Cabinet

Report title: Solihull Town Centre Low Carbon Energy Network

Report from: Alan Brown - Assistant Director, Growth & Development

Report author/lead contact officer: Lisa Whitton – UK Central Project Manager
Martin Clayton – Head of Investment & Commercial Partnerships

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
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Public/private report: Public

1. Executive Summary

- 1.1 The purpose of this report is to detail the outcome of the commercialisation stage of the Solihull Town Centre Low Carbon Energy Network project (referred to as the “Energy Network”), considering all five elements of the Full Business Case for Phase 1 of the network development.
- 1.2 Resources and Delivering Value Scrutiny Board have considered the contents of this report at its meeting on 6th March 2023.
- 1.3 The core elements of the Strategic and Economic Cases remain unchanged from the Outline Business Case reported to Economic Development and Managed Growth (EDMG) Scrutiny Members in March 2021. However, these cases have been strengthened through recent and emerging national policy on heat networks and the net zero ambitions of the Council and WMCA.
- 1.4 The establishment of a heat network in Solihull town centre offers a clear opportunity to make significant reductions in CO2 emissions. However, the associated financial modelling is complex for such a major investment, is subject to many variables and the IRR for Phase 1 is positive but low. There is, however, potential for further expansion of the network across the town to specific customers which would improve the financial position and give further CO2 savings.

- 1.5 The total capital cost of the Phase 1 scheme stands at £18.390m. The financial position for the Council in the Phase 1 base case demonstrates a £4.140m surplus over the 40-year project period; thus representing a positive, but 'marginal' position in terms of financial viability. The financial model associated with Phase 1 is very sensitive to pricing and inflationary changes. Therefore, key sensitivities have been run by independent consultants against the base case including extreme gas and electricity pricing scenarios, inflation changes, removal of a major customer connection and analysing the effect of maximising use of the Phase 1 heat generation plant to further local customer connections.
- 1.6 This report includes the Energy Services Company (ESCo), Solihull Energy Limited's Shareholder Agreement and draft business plan. The ESCo has already been established as a non-trading entity and will need to be established as a trading entity prior to award of contract with the main contractor. The ESCo will hold the Energy Network assets, enter into contracts for construction and operation, and customer heat and power supply, and manage and operate contracts on behalf of the Council as sole shareholder.

2. Decision(s) Recommended

- 2.1 To note the latest commercialisation position, in particular the procurement outcome, the affordability position, sensitivities undertaken and the financial risk assessment, and to agree to proceed with the delivery of the project.
- 2.2 To delegate authority to the Acting Chief Executive in consultation with the Cabinet Members for Resources and Climate Change, Planning & Housing to sign any contractual arrangements associated with additional Heat Network Investment Project (HNIP) funding set out in section 3.5.3, subject to satisfactory conditions being agreed.
- 2.3 To agree the prudential borrowing of £8.7m required to fund the Council's investment into the ESCo.
- 2.4 To note the delivery programme of the Energy Network to the Council and external customers.
- 2.5 To approve the Solihull Energy Limited Shareholders Agreement and endorse the draft Business Plan April 2023 – April 2028 as set out in Appendices 1 and 2.
- 2.6 To endorse Solihull Energy Limited entering into a contract with Vital Energi Limited as the Design, Build, Operate and Maintain (DBOM) contractor on the basis that it is confirmed to the Leader of the Council and the Cabinet Members for Resources and Climate Change, Planning & Housing, as advised by the Director of Economy and Infrastructure, that the conditions set out at paragraph 4.7.10 (c) are achieved.

3. Matters for Consideration

- 3.1 In March 2021 Economic Development and Managed Growth (EDMG) Scrutiny Members considered the initial commercial delivery model and the progress of the procurement strategy made since the submission of the Outline Business Case to Cabinet the previous year. The report confirmed that funding applications submitted to

the West Midlands Combined Authority (WMCA) and Heat Networks Investment Project (HNIP) had been successful.

- 3.2 EDMG Scrutiny also considered the outline Board and Governance structure proposed for the Energy Services Company that would be established subject to Cabinet Member approval at the conclusion of the Full Business Case stage.
- 3.3 Officers have now concluded the Full Business Case stage of the project, otherwise known as the commercialisation stage. This stage has taken some time to complete due to the complexity of the project. This complexity resulted in a significantly extended procurement period for the Design, Build, Operate and Maintain (DBOM) contractor, a substantial period of negotiation with energy customers, and the carrying out of a comprehensive and lengthy due diligence process to confirm the affordability of the project for the Council.
- 3.4 Resources and Delivering Value Scrutiny Board considered the contents of this report at its meeting on 6th March 2023; an update will be provided to Cabinet on the evening.
- 3.5 The most significant developments since March 2021 are summarised as follows:
 - 3.5.1 Full planning approval was received for the Energy Centre in May 2021. The approved design has formed the basis of the DBOM bidder design and build price.
 - 3.5.2 The procurement for a 15-year Design, Build, Operate and Maintain contractor for the Energy Network through a Competitive Dialogue process reached Preferred Bidder stage in March 2022. Work has since continued with the preferred bidder, Vital Energi Limited, to refine and improve minor aspects of design and price prior to a Full Business Case (FBC) decision. Vital Energi has also been assisting in Customer contract negotiations.
 - 3.5.3 Due to unprecedented volatility and inflation affecting national construction and energy industries, the project costs have increased since initial estimates were received. To mitigate these unanticipated challenges, an updated Heat Networks Investment Project (HNIP) application was recently submitted by the Council for £2.9m in addition to the £5.9m already secured. The Council has recently been informed that the application for £2.9m is successful. The new grant is therefore included within the financial model. However, a condition of the grant is that it needs to be committed or spent this financial year and this tight timescale may be challenging for the Council to achieve. Discussions between the Council and BEIS on the details of these grant conditions and on how the Council may comply with them are still ongoing.
 - 3.5.4 An affordability assessment has been undertaken on the cost of the Energy Network to the Council as part-investor. This assessment, together with the financial model, has been further reviewed by the Council's external financial consultants KPMG.
 - 3.5.5 Tax advice has been obtained from KPMG to ensure that the final financial accounting approach maximises available tax allowances and efficiencies. Legal advice has also been sought to ensure that the project complies with the Subsidy Control Act.
 - 3.5.6 Customer heat and power supply and connection agreements have continued to be negotiated. All Phase 1 customers benefit from 'green for the price of brown' energy

tariffs, no connection cost and 50% carbon savings from day one of connection. All Phase 1 customers have each provided Letters of Intent illustrating their continued support for the project and commitment to working towards signed Customer Agreements.

3.5.7 Detailed work has been undertaken on the refinement of the governance of the ESCo, its Annual Budget and the management and operational responsibilities it will need to fulfil. This information is presented as a Shareholders Agreement and associated draft business plan at Appendix 1 and 2. The ESCo will own the energy network assets, enter into contracts for their construction and operation, and customer heat and power supply. The ESCo will manage and operate contracts on behalf of the Council which is the sole shareholder.

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

4.1 The Full Business Case has been developed in accordance with HMT Treasury Green Book compliance for Full Business Cases. Each of the 5 cases required for such compliance are summarised below.

4.2 Strategic Case

4.3 The UK government's commitment to net zero emissions by 2050, and WMCA's ambition to achieve this goal by 2041, supports the need to commence the switch of heat generation from fossil fuels to low carbon or renewable heat alternatives. The Council's Net Zero Action Plan (NZAP), which is part of Solihull's response to the Climate Emergency, supports progress against the targets of 2030 for the Council's own emissions to be net zero and 2041 for the Borough's emissions as a whole.

4.4 The Energy Network will be a key element of the Council's NZAP. It will support long term affordable and low carbon heat supply for existing town centre occupiers' buildings and future development identified in the Solihull Town Centre Masterplan. Through this energy network, local air quality improvement opportunities are also sought via the removal of individual gas fired heating plant in connected buildings. This project also brings environmental education opportunities to the town centre and builds pride in Solihull's low carbon commitment.

4.5 For individual buildings, decarbonising heat is expensive and often disruptive to occupants. A town centre energy network enables existing buildings and new developments to benefit from centrally based low carbon heat generation with minimal disruption and in a cost-effective manner that benefits from economies of scale.

4.6 The government has identified heat networks as a key technology to decarbonise heat and has allocated £288m of funding to grow the national heat networks market through the Green Heat Network Fund. The Government has also concluded initial consultation regarding implementation of Heat Network Zones and is initiating pilots to determine how those zones are determined prior to introducing primary legislation. It is expected that zones will be implemented in areas of high- density heat demand and/or where there is an existing functional network and large buildings will be required to connect to the existing network.

- 4.7 According to the Association for Decentralised Energy, there are over 14,000 heat networks in the UK. There are 446,517 domestic customers, 33,273 commercial customers, 4,670 retail customers, 320 light industrial customers, 1,456 universities and schools and a further 4,865 mixed use networks. The UK's Clean Growth Strategy suggests that 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.

Solihull Town Centre Energy Network

- 4.7.1 The Energy Network was conceived to respond to the problem that there are over 400,000 tonnes of CO₂e annual emissions from heating in Solihull Borough; this is almost 30% of Solihull's total emissions.
- 4.7.2 The aims of the Energy Network are to deliver carbon savings, make a material contribution towards the Council's response to the climate emergency, provide good value to customers and to help promote and encourage investment in Solihull Town Centre.
- 4.7.3 The Heat Network Industry Council identifies well over 100 new heat network developments in the UK, many of them sponsored by local authorities. Many of these are being supported with grants from the UK government Dept for Business, Energy and Industrial Strategy (BEIS). Solihull Council has already received a £5.9m grant towards the implementation of Phase 1 of the Energy Network from BEIS and has recently been informed that it has been awarded a further £2.9m grant, subject to the conditions explained in Section 3.5.3.
- 4.7.4 The modelling shows that the potential carbon savings associated with a heat network to be established in the town centre are considerable: Phase 1 alone is projected to save 26,109 tonnes of CO₂e over 25 years. Phase 1b, is projected to save a further 10,000 tonnes and future phases could provide an additional 70,000 tonnes reduction.
- 4.7.5 The Council's investment in such a heat network to achieve these savings is not without risk. The business model for the network has been built to minimise negative impacts from a variety of variables but forecasting is inherently uncertain. The Internal Rate of Return (IRR) forecasts are positive but low and depend on further expansion of the network in the town centre to improve both the financial position and decarbonisation outcomes.

Comparing Experiences of Other Local Authority Owned Energy Companies

- 4.7.6 Well designed and managed heat networks have proven to be highly effective. Their use is widespread in many parts of Europe – particularly in Scandinavia – 64% of homes in Denmark are served by heat networks as are most municipal buildings. With government support, dozens of councils across the UK are now engaged in the development of heat networks with the establishment of wholly owned energy companies.
- 4.7.7 There have however been some recent high-profile failures of council-owned energy companies. Perhaps the most well-known are Nottingham-based Robin Hood, Bristol Energy and Warrington-based Together Energy. These companies were established to reduce local fuel poverty by competing with large UK energy retail companies by

trading and selling energy produced at a national level to local households. These councils' aims could be considered as laudable: the UK energy market has been considered by many to be uncompetitive and has been dominated by large utility companies, sometimes called the 'big six'. However, the unforeseen sustained increase in wholesale prices of gas and electricity in recent years made these councils' business models unsustainable. Unfortunately, they have all suffered from financial difficulties.

4.7.8 The scale and business model of the three council energy companies mentioned in 4.9.2 is very different to that now proposed in Solihull: this Energy Network is aimed at producing its own low carbon energy to sell to local customers linked with a physical heat network and the contract with customers tracks energy prices so that the Council is not exposed to increases in wholesale prices.

4.7.9 Whilst focus is often on the less successful schemes, it is worth describing some successful UK Council led heat network projects with similarities to that proposed in Solihull town centre, which include the following:

- (a) The Gateshead Council district energy scheme combines energy generation, distribution, energy storage and demand side management to reduce energy costs and carbon emissions. Heat and electricity is distributed to businesses and residents across Gateshead via a three kilometre network of heat pipes and 'private wire' electricity cables. In 2017, the project received the Visionary Award from the Association of Decentralised Energy (ADE), which recognised the project as a successful model that can be used to help boost redevelopment in other towns.
- (b) Islington Council has created a publicly owned heat network which has been developed in two phases. The first phase was opened in 2012. It has 1.4 km of pipework and serves 820 dwellings, two leisure centres and four office blocks. It is powered by a 1.95 MWe CHP engine and has a 115 m³ thermal store. Phase 1 has produced a saving of 2,000 tonnes CO₂/year. For the second phase, a major 1km expansion is underway which will incorporate an air source heat pump and will connect 450 existing social housing units, 150 new-build homes and a primary school.
- (c) Aberdeen Heat & Power (AHP) is an arm's length not-for-profit company limited by guarantee established in 2002 by Aberdeen City Council to address fuel poverty in the 59 high rise residential blocks it owns. It has successfully established and run four heat networks around the city. Building on its success, there are plans to link these networks and expand them across the city.
- (d) Closer to home, Coventry District Energy Company uses waste heat from the incinerator owned by the Coventry and Solihull Waste Disposal Company to supply consumers in Coventry City Centre, including Council buildings. It uses 6.6km of underground pipes to supply this heat.

4.7.10 Throughout the development of this business case, Council officers have reviewed available reports and utilised experienced consultants to consider how learning from others can be applied to this Energy Network. This approach has been particularly relevant in developing the structure of the ESCo, the development of the DBOM

contract and the financial case. In relation to the financial case the key outcomes from these reviews are as follows:

- (a) The Finance Case set out in this report is the product of twelve months work that takes account of the significant increase in construction costs over that period and the volatility of energy prices.
- (b) In addition to the base case, several sensitivities have been run and the results presented in a transparent manner. Price reductions have been modelled in the sensitivity analysis and the potential for these reductions to result in a negative financial outcome for the Council have been made clear.
- (c) Independent evaluation of other local authority led heat networks has highlighted the importance of appropriate forms of delegated authority. This report seeks endorsement from Cabinet for the ESCo to enter into the DBOM contract. However, as the sole shareholder of the ESCo, the Council will ensure that it will only enter into that contract on the basis that clearly expressed pre-criteria are met as follows:
 - The confirmed availability of the additional HNIP grant and the assurance that it can be deployed within the timescale set out in the grant conditions as discussed in Section 3.5.3.
 - Settled form of contracts for Phase 1 customers to join the network.
 - A re-run of the financial base case to establish the results of any other variables, including subsidy control, that have arisen in the intervening period and confirmation that the project remains viable.
- (d) The use of IRR financial assessments in some other local authority led heat network projects as the financial basis for decisions has also been criticised for being complex and unclear. The Finance Case in this report presents the results for the ESCo and the Council in pounds sterling. IRR values have been calculated for the purpose of demonstrating continued eligibility for the HNIP grant only. They are not presented as the basis for this Council's decision.
- (e) It is acknowledged that although rigour has been applied to the financial case, this work is inherently complex and subject to many variables.

4.7.11 A final differentiator for this Energy Network is that there is sufficient scope in the town centre for expansion to other customers to achieve early economies of scale and the network has been designed to accommodate expansion.

4.8 Economic Case

4.9 During development of the Outline Business Case (OBC), a range of options were identified for the Energy Network as part of the long list assessment. An options framework was then used to identify a 'preferred way forward' from which the short list of options was drawn to identify which options would meet the spending objectives and Critical Success Factors (CSFs) agreed for the scheme.

CRITICAL SUCCESS FACTORS

- 1 Carbon dioxide savings, entire network
- 2 Carbon dioxide savings, SMBC
- 3 Energy cost equivalence to customers
- 4 Energy cost equivalence to SMBC
- 5 Low Carbon heat generation – minimum 50% from low carbon source
- 6 Zero Council cost over project lifetime

4.10 The preferred option for heat generation was initially a gas-powered Combined Heat and Power (CHP) engine with an open loop Ground Source Heat Pump (GSHP). However, following analysis of the trial borehole yield in September 2019, it was confirmed that due to a lower resource than expected, significantly more boreholes would be required than anticipated to supply the heat demand required for the Phase 1 scheme, which would increase CAPEX, require more land availability, and potentially cause excessive disruption in Tudor Grange Park. Future network phases would then require additional boreholes which would likely be unviable due to limited land availability.

4.11 As outlined in the OBC, the Phase 1 network was intended to supply heat to ten sites in the town centre.

Full Business Case Position

4.12 The Phase 1 network will be supplied with heat and power from a centrally located energy centre adjacent to Tudor Grange Leisure Centre. The energy centre received full planning permission in May 2021; designed to nestle into the surrounding park features whilst also providing opportunity for expansion as the network develops.

4.13 The Phase 1 network will connect town centre buildings across 2.3km of heat network and 1.5km of electricity network. There are six intended Phase 1 customers including Council owned sites, education campuses and private sector organisations.

4.14 The energy centre plant (phase 1) comprises:

- (a) 1.7 MW air source heat pump with evaporators located on the roof
- (b) 1.6 MWe natural gas combined heat and power plant (CHP)
- (c) Circa 4 MW of natural gas or electric boilers for back-up heat
- (d) 200,000 litres of thermal storage tanks

4.15 The tendering process to appoint a DBOM contractor for construction and operation of the network has been completed and a preferred bidder has been identified. The preferred bidder has provided confirmed capital costs, operating and maintenance costs, with plant size and type compliant with the technical specification issued and in

line with the plant sizes of the preferred solution as per the OBC. The techno-economic model has been updated with these actual costs and the confirmed heat and power sale tariffs to end users (as per the heat and power sales agreements) and the findings are summarised below:

Preferred Option with Actual Costs – 40 year assessment

Preferred Option	CAPEX	High level 40 year assessment		
		IRR	NPV	CO ₂ e savings
ASHP and gas CHP	£18,390,330	0.2%	-£7,537,306	38,622 tCO ₂ e
		4.3% (48% grant)	£1,323,588 (48% grant)	

Future Network Expansion

- 4.16 Whilst this business case must demonstrate viability for Phase 1 alone, a key driver for this project is its ability to expand which will give improved financial returns and even greater carbon savings. Work therefore continues to be undertaken to identify further customers for development of the network to future phases.
- 4.17 Future phases are indicatively set out below, these are divided into short, medium and longer term opportunities.
- (a) Short term - Phase 1b (equates to maximum heat scenario) are those customers who have shown an appetite for connection and who are based near to the Phase 1 network. This phase will be able to be served through existing plant within the energy centre (1.6MWe CHP, 1.7MW Air Source Heat Pump (ASHP)) to a maximum load of 16,000 MWh and customers are anticipated to connect quickly after Phase 1 completes.
 - (b) Medium term - Phase 2 will require an additional 1.7MW ASHP installed (this is the maximum capacity of the current Energy Centre proposal). Customers include those associated future developments coming forward in the short to medium term. These included several that are within the Council's control and those who are also nearby to the Phase 1 network route. It is anticipated that this phase would come forward within the short to medium term (5-10 years).
 - (c) Longer term - Phase 3 will require an additional 1.7MW ASHP installed elsewhere on the network, with most of the new customers on the periphery of the town centre. It is anticipated that these buildings will form part of the network in the medium to long term (+10 years). Positive discussions have taken place with potential large heat customers about linking into a future phase of the network.
- 4.18 Whilst the CO₂e savings (over 25 years) are approximations for future phases, the table below shows the scope of expansion of the network following Phase 1.
- 4.19 It should be noted that an additional 7,328 tCO₂e of carbon savings over 25 years is realised for Phase1 and Phase 1b customers (on top of figures quoted above) when the additional ASHP is installed at Phase 2 due to further de-carbonisation of the network. It is intended that as technology develops, the plant within the energy centre

and/or the energy sources it uses to distribute heat and power will likely be appropriately enhanced, thus enabling further decarbonisation opportunities.

	CO2 Savings	Annual Heat Demand
Phase 1b (4 Customers)	10,111 tCO ₂ e	3,878,672 kWh
Phase 2 (5 Customers)	19,822 tCO ₂ e	6,443,782 kWh
Phase 3 (14 Customers)	50,718 tCO ₂ e	16,741,557 kWh
Total	80,651 tCO₂e	27,064,011 kWh

4.20 Through future phases of Energy Network development, the private wire network could enable the creation of a local smart grid across the town centre integrating rooftop PV at connected buildings with battery storage, providing zero carbon energy and grid balancing services.

4.21 Expansion of the heat network at scale will drive efficiencies and materially improve both the financial performance and CO2 savings delivered by the network. It is anticipated that further grant funding may be available from government to support expansion of the network.

4.22 Commercial Case

DBOM Procurement

4.23 During the commercialisation phase of the project, a two-stage procurement process was undertaken to establish a preferred bidder for the Design, Build, Operate and Maintain contract. Three bidders proceeded through into the competitive dialogue stages and two final tenders were received.

4.24 The DBOM Contract is a bespoke form of contract based on the Standardised Operation and Maintenance Set (SOMS) contract templates developed by Triple Point Investment Partnership on behalf of the Department for Business, Energy and Industrial Strategy (BEIS). The SOMS templates align with the template supply and connection agreements also being used for the customers and are designed specifically for energy network schemes.

4.25 The DBOM Contract is for an initial 15 years with up to a 10-year extension period (extended at the discretion of the ESCo). A lengthy duration of the DBOM Contract is important for driving quality and best value lifecycle and carbon reduction. A 15-year initial term is aligned to the major heat generation plant lifecycle.

4.26 The preferred bidder is Vital Energi Limited. Alongside the company's capital and operational costs tendered, it also has a Social Value proposition in excess of £6m and this includes apprenticeships, work placements, significant local supply chain spend, mental health programme and ethical procurement.

Special Purpose Vehicle

- 4.27 Solihull Energy Limited has been established as the Council's wholly owned Special Purpose Vehicle (initially as a non-trading entity). The corporate vehicle would serve as an ESCo for the energy network, where any contractual relationships with customers and contractors would sit with the ESCo and not the Council itself.
- 4.28 The ESCo will hold the Energy Network assets, enter into contracts for construction and operation, and customer heat and power supply, and manage and operate contracts on behalf of the Council as sole shareholder. The Shareholder Agreement which describes the relationship between the Council and the ESCo is at Appendix 1.

Customer Agreements

- 4.29 Customer connections and supply agreements for heat and/or power have been developed also using BEIS templates. These agreements are reaching settled form following over 12 months of negotiation with external customers. The agreements are for a 10-year period with the right to terminate the agreement with 12 months' notice. A copy of the baseline agreement(s) is in the Private Appendix 5.
- 4.30 The agreements set out the methodology for establishing the tariff, which, for Phase 1 customers, is based on a counterfactual position – which means taking the whole life-cycle costs associated with the provision of gas and/or electricity and establishing a tariff associated with the delivery of a heat and/or power service.
- 4.31 Due to significant fluctuations in energy price, the tariff assumptions use the ESPO (a public sector owned professional buying organisation) Energy Framework actual and forecasting assumptions in setting the indicative price. The actual price will be set, using the established methodology just prior to supplying heat to customers. Once the initial tariff is set, indexation will be applied using ESPO indices for the variable element of the tariff and Consumer Price Indices (CPI) for the fixed component - thus protecting the ESCo from price fluctuations in the energy market.
- 4.32 The ESCo needs to meet the terms of its contract with customers for the delivery of energy. If it does not, then customers would be entitled to compensation. However, the DBOM contractor also needs to meet the terms of its contract with the ESCo. To ensure consistency and transparency, the Council has decided to take a commercial approach and include within the Customer Agreements the same Key Performance Indicators and payment mechanisms as set out in the DBOM contract, thereby providing some comfort, and limiting the Council's contractual exposure.
- 4.33 Phase 1 customers have been further incentivised to take advantage of receiving energy from the network by not charging them a connection cost. For each customer this is typically in the region of £200k-£500k.
- 4.34 Contract Responsibilities:
- (a) The DBOM Contractor is responsible for the purchase of gas and electricity.
 - (b) The Contractor takes volume risk and is also required to assess the demand of customers during the design stage.

- (c) The ESCo holds the supply agreements and receives the income from the customers.
- (d) The ESCo pays both a fixed and variable cost for the Operate and Maintain (O&M) part of the DBOM contract and input utilities required to supply the agreed quantum of heat and power to customers (noting that actual demand will vary from this theoretical usage).
- (e) The variable gas and electricity input prices are set and agreed twice a year; coinciding with the dates for which the ESPO Framework update their gas and electricity prices. The ESCo is then able to reflect changes to the underlying input fuels in the heat and electricity price as set out within the customer supply agreements.
- (f) The O&M fixed charge is subject to inflation only (CPI).

4.35 The Council retains the risk of non-connection, bad debt, void premises and reduced demand over that specified within the contract.

4.36 Financial Case

4.37 Full Cabinet considered the OBC for the proposed town centre heat network at its meeting in February 2020. The report set out the principal findings of that case and authorised officers to submit it to WMCA as part of a bid to secure up to £2m of funding to work up the Full Business Case (FBC).

4.38 From a financial perspective the main points to note from that report, for the first phase of the proposed network only, were:

- A total capital cost of £13.5m that would be funded from a combination of grant, debt, and equity. The debt and equity would be provided by the Council.
- A low, but positive internal rate of return of 2.95% (before tax and grant funding). It was noted that this level of return was insufficient for the project to be delivered by the private sector. However, the positive return was critical to be able to access Heat Network Infrastructure Project (HNIP) grant funding.
- The return to the Council from the ESCo, that would be established to run the network was sufficient to repay the debt that the Council would incur to fund its debt and equity investment over a 40-year period.

4.39 Following on from the appointment of the preferred bidder for the project and updated financial modelling, officers are now able to report the financial projections associated with the delivery of the project both for the ESCo and the Council.

The Base Financial Case

4.40 The Council engaged the support of Buro Happold to provide commercial and financial advice for the project. Their concluding report is attached at Private Appendix 6. The report summarises the work they have completed to assess the financial position for the ESCo before going on to look at a range of sensitivities. The financial model is based on a range of assumptions, set out in the report, that cover the

following:

- Capital construction costs.
- The customers for Phase 1 of the network.
- The forecast level of demand from those customers.
- The standing and variable charges that will be paid by the ESCo for the heat and power supplied to it.
- The onward costs the ESCo will charge to the customers.
- ESCo operational costs, maintenance, and component replacement costs.
- Business rates, VAT, and corporation tax (including the application of capital allowances).
- Grant funding for the capital construction costs.

4.41 The capital cost of the project has increased to £18.4m. This would be funded as follows:

- HNIP & WMCA Grant £9.7m.
- Debt (provided by the Council) £5.4m.
- Equity (provided by the Council) £3.3m.

4.42 The Council would, in turn and subject to Cabinet approval, fund its debt and equity investment totalling £8.7m through prudential borrowing. A 40-year annuity loan at 4.8% has been assumed in the base case.

4.43 The Buro Happold report then summarises the financial analysis performed to forecast the income and costs of the ESCo over a 40-year period. It concludes that the ESCo will generate sufficient profit over that time to provide £11.612m of dividend and equity payments to the Council. The 40-year cashflow for the ESCo as provided by Buro Happold is attached at Appendix 7.

4.44 The financial position for the Council is determined by the amount it pays to service the debt taken from the Public Works Loan Board (PWLB) to finance the initial investment in the ESCo versus the income it will receive from the ESCo in the form of debt principal, interest, and dividends as summarised in the table below.

Base case - Financial Implications for Solihull MBC	
	£m
Debt provided to the SPV	5.334
Equity provided to the SPV	3.317
Total	8.651
<i>Determines:</i>	
Total debt taken from the PWLB	8.651
Total paid to PWLB over 40 years (principal and interest)	
	19.558
<i>Total received from the SPV over 40 years:</i>	
Debt	5.334
Interest	6.752
Dividend	11.612
Total income to Council	23.698
40 year surplus	4.140

- 4.45 The above table demonstrates a £4.140m surplus over the whole project period. The 40-year cashflow, presented from the Council perspective, is attached at Appendix 8. There is a deficit in year one of operations due to the facility only being active (and therefore income generating) for part of that year. The deficits shown towards the end of the project are due to the assumption that the ESCo retains profits in the final years of operation to cover the eventuality that major capital works are required. This sum rolls up and then is released in the form of dividend in the final three years of operation. In reality, the Council as sole shareholder would be able to review the phasing of those payments with the management of the ESCo.
- 4.46 Before moving on to the sensitivity analysis there are some further points associated with the base case that should be noted.
- 4.47 The case assumes that the Council proceeds with the Westgate office development and that this joins the network from 2026. The possibility that this will not happen is considered in the sensitivities.
- 4.48 Interest rates have risen significantly over the last year. The base case includes the Council taking debt from the PWLB at 4.8% compared to 3.5% at the time of the OBC. The table below shows that the interest rate would need to increase by a further 1.5% to eradicate the surplus in the 40-year model, all else remaining equal. In practice, if the scheme proceeds, the Council will likely fix the interest rate charged to the project at that time and therefore at that point any future increases will not impact on the financial position.

Interest rate sensitivities

	Interest rate	Cost payable to PWLB over 40-year term £m	Increase payable to PWLB at higher rate £m	Net Profit / (Loss) £m
Base case	4.80%	19.557	NA	4.140
plus 0.5%	5.30%	20.940	1.383	2.757
plus 1%	5.80%	22.359	2.802	1.338
plus 1.5%	6.30%	23.811	4.254	(0.114)

4.49 Whilst the 40-year position shown in the base case is positive, it is marginal. To put the surplus of £4.140m into context, it is shown in the table below as a percentage of operational costs, operational income, and the amount payable to the PWLB.

Base case surplus as percentage margin

		Net Profit £m	Operational costs / income / borrowing costs £'000	Surplus as percentage %
5.1	Base Case	4.140		
	40-year operational costs		254.950	1.62%
	40-year operational income		283.343	1.46%
	40-year PWLB payments made by Council		19.557	21.17%

4.50 As a consequence, small fluctuations in the key financial variables assumed in the base case that either reduce income or increase costs will erode the surplus, potentially to the extent that the project becomes a net cost to the Council.

4.51 To illustrate further, demand for heat and power is a key financial variable. As shown in the Buro Happold report at Table 3 in Private Appendix 6, the ESCo derives 97% of its income from variable as opposed to standing charges.

4.52 Conversely for the ESCo, the proportion of its operational costs considered to be fixed (at least in the medium term) equates to 10% (table 6 in the report). This excludes the ESCo's interest and debt payments to the Council which equate to a further £0.303m per annum that the Council would need to be honoured. When this expenditure is factored in, the proportion of the annual ESCo costs that can be considered as fixed increases to 14%.

4.53 Consequently, the ESCo's income is exposed to a greater degree of fluctuation than its cost base. On that basis a reduction in income from demand would not be

manageable, on a pound for pound basis, by a corresponding reduction in its costs.

- 4.54 Ultimately, from the Council's perspective, proceeding with the project will mean it will be committed to PWLB repayments currently assessed at £0.489m per annum that must be met regardless of the financial performance of the ESCo. The Council will be committed to the repayment of the loan in all scenarios. The rest of the Council's financial liability will be limited by its equity holding. The establishment of the ESCo, its funding agreements and contracts will be constructed in such a way that its legal liabilities do not flow through to the Council as shareholder. Should the Company however fall into financial difficulty at any given time, it may be anticipated that there will be a reputational issue for the Council and the Company may seek further funding from the Council.
- 4.55 Finally, considering the increase in capital costs since the submission of the OBC, Council officers have been in discussions with BEIS with a view to securing additional HNIP grant. The Council was informed on 20 February that subject to acceptance of the Section 31 paperwork by the Department of Levelling Up, Homes and Communities (DLUHC), the BEIS Investment Committee approved a further £2.9m of capital grant towards the £18.390m capital cost. This award is factored into the base case. However, as explained in Section 3.5.3, there are challenging conditions with this grant regarding the need for early commitment or expenditure which we are continuing to explore with BEIS. If either the additional grant is not approved or cannot be applied in that required timeframe, then the Council would have to replace that sum with additional borrowing. The result of such a scenario over the 40-year period for the base case would be a net deficit of £2.413m.
- 4.56 Following the recent confirmation of the additional HNIP grant award and updated tax advice from KPMG, the Council will need to review and update the financial modelling to ensure compliance with the subsidy control regime and optimum tax position. This will include engagement with the Competition and Markets Authority in a process that, we are advised, takes 40 working days.
- 4.57 It should be noted that there is considerable potential upside for the project as well as risks and both are considered further in the sensitivity section below.

Base Case Due Diligence

- 4.58 Given the significant scale of the investment, and the complexity of the risks, the Council engaged the support of KPMG in its capacity as specialist and technical financial advisors to the Council to assess the financial position. KPMG took the same input assumptions for the project as Buro Happold and ran them through their own infrastructure focused financial model. Following considerable further engagement between the parties, the reconciliation between the two models has been concluded and the £4.1m overall forecast return to the Council has been verified, based on the assumptions set out for the base case.

Sensitivity Analysis

- 4.59 Clearly the base case represents only one possible outcome. There are many variables and the extent to which these vary impact on the financial outcomes presented. After consideration by the project team, a further five iterations of the

model have been run which cover the variables that are deemed to be most significant. These are as follows:

Pricing variant. The price associated with both buying and selling heat and power has increased significantly in the period which the Council has been developing this project. It is not certain when, or even if, prices will fall back to what was considered normal only one or two years ago. However, a model has been run which demonstrates the impact if gas prices reduce by 50% and electricity by 25%.

Inflation. The base case assumes CPI increases by 2% per annum. The logic for the choice of 2% is that this value is the stated government aim for CPI over the long term. Undoubtedly, however, the actual rate will vary over time. To illustrate the range of impact that inflation might have, a sensitivity assessment has been run at both 0% and 4%. The hypothetical 0% case is designed to illustrate the underlying financial position for the project to determine whether the base case gives a positive return before inflation is applied. 4% has then been selected to consider a range of plus or minus 2% from the base assumption.

Westgate. As stated above, the base case assumes that the Westgate office development is completed and connected to the network by 2026. Whilst in one sense this energy customer is in the Council's control, construction of the project is yet to be agreed. Therefore, a sensitivity option has been provided that strips out the operational costs and revenues associated with this energy customer.

Increase in demand. The base case includes customers who are known and engaged in the project and who have provided letters of support, as a minimum, regarding their further participation. For the project to proceed it is taken as a given that these statements of support will need to be converted to contractual commitments. However, the capital project considered here includes infrastructure capable of servicing further demand from additional customers. The financial position if the Phase 1 plant was run "at maximum" capability has been run. This does not take account of specific connection costs for those customers but equally it would be expected that, in this scenario, future customers would cover at least some of that cost and there may be opportunity for further government grant funding to support the capital cost of expanding the heat network. It should also be noted that customer tariffs have been modelled on the same beneficial counterfactual basis as the Phase 1 customers (green for the price of brown) whereas, once the base case connections are established, future connections would likely be expected to pay a premium for low carbon heat. This scenario relates to Phase 1b expansion of the network as described in the Economic Case above.

- 4.60 It should be noted that each sensitivity case is run in isolation, so only one variable at a time is altered. They are not presented cumulatively. Should a combination of reduced demand from customers and falling prices occur simultaneously, these would further erode the margin that the Company needs to meet its fixed costs and for the Council to service its loans.
- 4.61 The table below presents the results on the income paid to the Council by the ESCo and the resultant Council surplus or deficit, over the 40-year period of the project.

Sensitivities

	Interest £m	Principal £m	Dividend £m	Total income to Council £m	Cost of PWL borrowing £m	Net Profit / (Loss) £m
Base case	6.752	5.334	11.611	23.697	-19.557	4,140
Pricing variant	6.752	5.334	6.584	18.670	-19.557	(0.887)
0% Inflation	6.752	5.334	3.857	15.943	-19.557	(3.614)
4% Inflation	6.752	5.334	24.919	37.005	-19.557	17.448
No Westgate	6.752	5.334	9.084	21.170	-19.557	1.613
Maximum heat capacity	6.752	5.334	15.549	27.635	-19.557	8.078

4.62 The data in the above table gives rise to a number of observations.

4.62.1 **Pricing.** The same percentage reductions (50% and 25%) are applied equally to both the costs that the ESCo pays for gas and electricity and the income it receives for the heat and/or power service from its customers. Whilst this maintains the profit margin as a percentage, the lower the respective prices, the lower that margin equates to in pounds. Overall, the ESCo still remains profitable and generates a total dividend over the period of £6.6m, however this would be insufficient to cover the Council's borrowing costs and a marginal deficit of £0.887m over the period results.

4.62.2 **Inflation.** The 0% inflation explanation is similar to that under the pricing section above. Under the base case, as income and costs inflate at 2%, the profit margin on each unit of energy expressed in pounds increases accordingly. Without inflation the pound margin remains constant. Again, the ESCo remains able to generate a positive dividend over the period but this would be insufficient to cover the Council's borrowing costs. At 4% conversely the pound margin increases at a greater rate than the base case and the dividend and associated Council position improves materially as a consequence.

4.62.3 **No Westgate.** As stated above, the Council is yet to commit to the construction of this new office building. In the event that it does not do so, and the facility does not join the heat network in 2026, then the dividend generated from the ESCo reduces but overall, the Council can still meet its borrowing costs.

4.62.4 **Maximum heat capacity.** The Phase 1 plant has the capacity to supply 16,000 MWh of heat per annum. The base case results in total demand of 11,000 MWh (once Westgate joins) per annum. This scenario models the impact if sufficient additional customers can be attracted to join the network such that it runs at full capacity (Phase 1b expansion). Further allowance should be made for additional connection, maintenance and ESCo costs but even then, the potential benefits to the Council's financial position should be significant. In reality, the business case for each new customer would be individually considered and the financial consequences assessed in more detail.

Financial risk mitigation

- 4.63 There are two financial aspects of the base case that provide some mitigation against the risk of the Council needing to subsidise the project.
- 4.64 Firstly, the base case assumes PWLB debt at the current 40-year annuity rate of 4.8%. In reality, the timing of the loan will be a treasury management decision and the Council would look to borrow at a rate close to its average long term loan book average of 3.7%. At that rate the Council would save £2.9m in interest costs over the project period.
- 4.65 Secondly, the model assumes that the ESCo pays business rates from 2035 onwards (there being a relief applicable for heat network projects until at least that time) totalling £9m. Under the current local government finance system, the Council retains 100% of that business rate income and it could be ringfenced by the Council to protect against future financial risks.

4.66 Management Case

- 4.67 During the commercialisation stage the project team, including external commercial, legal and technical advisors, have refined the delivery approach, secured the required sources of funding, achieved planning consent for the energy centre and secured a preferred bidder for the DBOM contract to enable the Council's strategic objectives for the project to be met.
- 4.68 Letters of Intent from the external customers have already been secured, with updated letters now received from Solihull College and Tudor Grange Academy. Customers have committed to working towards settled customer agreements ready for signature concurrently with the signing of the DBOM contract.
- 4.69 Subject to Cabinet approval it is expected that the project will be delivered through a Special Purpose Vehicle (ESCo) which is wholly owned by the Council. The ESCo will be established as a trading entity prior to signature of the DBOM contract. Full governance arrangements are set out in the Shareholders Agreement and draft business plan at Appendix 1 and 2. The Shareholders Agreement includes articles of associations, terms of operation and reporting requirements.
- 4.70 The ESCo Directors will be responsible for ensuring the smooth operation of the DBOM contract through an appointed Contract Manager and will also ensure that reporting requirements, including financial performance and carbon reductions are fulfilled.
- 4.71 The risk register for the project will continue to be maintained throughout operation. Key risks and mitigation measures are set out in Section 6.5.1.
- 4.72 The draft construction programme is set out at Appendix 4, assuming a 31st March contract award date. There will be some further refinement to the programme once the contract is awarded informed throughout the detailed design phase of the contract.

5. Reasons for recommending preferred option

- 5.1 Officers recommend moving forward with this project for the reasons set out in the main body of the report above and further summarised below:
- 5.1.1 The project will demonstrate positive action by the Council in pursuit of its net zero ambitions.
- 5.1.2 The project appears to be a viable means of making a substantial absolute reduction of the town centre's carbon emissions over at least a 40-year period.
- 5.1.3 The base case financial model has out turned a marginally positive position and sensitivity analysis has been undertaken to demonstrate the outcomes should certain circumstances occur.
- 5.1.4 It is acknowledged that although rigour has been applied to the financial case, this work is inherently complex and subject to many variables. To mitigate risk, Officers recommend that moving forward with the project is subject to a number of conditions being met as set out in Section 4.7.10 (c).
- 5.1.5 Lessons have been learned from other UK-based heat network schemes and these have informed the DBOM contract and the structure and operational plan for the ESCo.
- 5.2 At a time of challenging and uncertain economic and energy market conditions it has been important to undertake a rigorous financial modelling and scenario testing to understand the financial risks to inform the decision to proceed as outlined in the Financial Case in Section 4.36. However, given the prevailing conditions consideration has also been given as to whether now is the right time to proceed and whether the scheme should be delayed.
- 5.3 Delaying the first phase of the scheme would have a number of adverse strategic, economic, commercial and financial implications that would ultimately inhibit future delivery of a low carbon heat network across Solihull Town Centre. The question of 'Why Invest Now?' is summarised below:
- (a) The significant grant funding that has been secured from government to support delivery of the Phase 1 scheme is time limited and would no longer be available.
 - (b) A delay would incur significant additional inflationary construction costs.
 - (c) A prolonged delay may necessitate a further procurement with significant cost and scheduling implications.
 - (d) Phase 1 customers need certainty, to make long term investment decisions on imminent replacement of their heating systems and decarbonisation of their buildings to meet net zero carbon targets.
 - (e) As a key enabling phase for future expansion, it is important to deliver Phase 1 of the network early, not only to provide confidence to prospective customers to connect (as has been the experience of other heat networks) but to be in place

ready to support and facilitate significant planned development across the town centre.

- (f) As outlined in the Strategic Case in Section 4.2, delivery of the first enabling phase of town centre low carbon energy network will demonstrate significant progress towards the Council's 2030 and 2041 net zero carbon targets.

5.4 Next Steps

5.5 Subject to Resources and Delivering Value Scrutiny Members feedback from the 6th March and Cabinet approval of this report, the next steps are as follows:

- (a) Prepare the DBOM contract ready for signature,
- (b) Prepare the final form of the Shareholders Agreement.
- (c) Appoint the two Directors for the ESCo initially and convene the first Board meeting.
- (d) Confirm updated conditions relating to the additional HNIP funding awarded and seal the amended Grant Funding Agreement; continue to press HNIP for an extension to the end of year funding commitment.
- (e) Confirm the borrowing rate to be applied to the business case.
- (f) Complete the Customer Agreements ready for signature.
- (g) ESCo to enter into contract with Vital Energi Limited.

6. Implications and Considerations

6.1 State how the proposals in this report contribute to the priorities in the [Council Plan](#):

Priority:	Contribution:
<p>People and Communities:</p> <ol style="list-style-type: none"> 1. Improving outcomes for children and young people in Solihull. 2. Good quality, responsive, and dignified care and support for Adults in Solihull when they need it. 3. Take action to improve life chances and health outcomes in our most disadvantaged communities. 4. Enable communities to thrive. 	<p>The development of the Energy Network brings environmental education opportunities to the town centre and builds pride in Solihull's low carbon commitment. The Social Value commitment made by Vital Energi includes proposed partnerships with our town centre education establishments to bring forward 180 weeks of apprenticeships, 20 weeks of training opportunities, 36 weeks of work placements and various other training events.</p>
<p>Economy:</p> <ol style="list-style-type: none"> 5. Develop and promote the borough's economy, with a focus on revitalising our town and local centres. 	<p>The Town Centre Energy Network has been designed to reduce carbon emissions. Most UK-based businesses are now under varying levels of increasing customer pressure to</p>

Priority:	Contribution:
<p>6. Maximising the opportunities of UK Central and HS2.</p> <p>7. Increase the supply of affordable and social housing that is environmentally sustainable.</p>	<p>improve their environmental performance. Connecting to the network enables Solihull town centre-based businesses to improve their environmental performance and gain the associated reputational benefit, thus improving their viability. Establishing the network will also help promote the town centre to businesses considering inward investment.</p> <p>The forthcoming Mell Square and Eastgate developments offer the opportunity to establish new housing that can benefit from connecting with the network to supply low carbon heat.</p> <p>The Energy Network will support existing town centre businesses to transition to a low carbon economy, be a catalyst for inward investment and enable future net zero carbon development identified in the Solihull Town Centre Masterplan.</p>
<p>Environment:</p> <p>8. Enhance our natural environment, improve air quality and reduce net carbon emissions.</p>	<p>The UK government commitment to achieve net zero carbon emissions by 2050, and WMCA's similar ambition for 2041, supports the need to commence the switch from fossil fuels to low carbon or renewable heat alternatives. The Council's Net Zero Action Plan 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. The 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 developments. Through the establishment of the network, local air quality improvement opportunities are also sought via the removal of individual gas fired heating plant in connected buildings. The network also brings environmental education opportunities to the town centre and builds pride in Solihull's low carbon commitment.</p>

Priority:	Contribution:
9. Promote employee wellbeing	None

6.2 Consultation and Scrutiny:

- 6.2.1 EDMG Scrutiny has endorsed, and Full Cabinet subsequently approved the OBC for the proposed town centre heat network at its meeting in February 2020.
- 6.2.2 An EDMG Scrutiny Board meeting was attended in March 2021 to give an update on progress of the commercialisation stage and the proposed governance structure for the ESCo.
- 6.2.3 Consultation with key stakeholders, members of the public and statutory planning consultees all took place prior to the approval of the full planning application for the energy centre. Planning reference: PL/2021/00682/MINFOT
- 6.2.4 Ward members for St Alphege and Silhill wards have been consulted at key gateways.
- 6.2.5 Resources and Delivering Value Scrutiny considered this report at its meeting on 6th March 2023.

6.3 Financial implications:

- 6.3.1 The financial implications are covered in the finance case section of the report above.

6.4 Legal implications:

- 6.4.1 The following key legal implications are relevant to moving forward with the construction phase of the project:
- 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 under negotiation.
 - b) A legal opinion on the value of allowable grant funding (Subsidy Control) must be concluded and this may require a revision of the financial model.
 - c) The Council will be required to approve the Shareholder Agreements, setting out the relationship between the Council and the ESCo. This approval will need to be in place, with Directors appointed to enter into the DBOM contract.
 - d) The ESCo will be the main contracting party for the design, build, operate and maintenance contracts required to deliver the Energy Network and its metering and billing aspects. It will also contract with each customer in the form of a connection and heat (and electricity where applicable) supply agreement.

6.5 Risk implications, including Risk Appetite:

6.5.1 A risk register for the scheme is maintained in accordance with the UK Central Project Management Framework and corporate risk management process. The main risks are outlined below:

Risk	Risk Mitigation Plan
<p>Demand Potential customers will not connect, or planned developments are not brought forward resulting in negatively impacting economic case.</p> <p>Private wire electricity sales are a critical revenue stream for the network.</p>	<ul style="list-style-type: none"> • Letters of Intent signed by all external customers. • Customer agreements in near final form following detailed negotiations with each party. • Technical team continuing to engage with the District Network Operator (DNO) that supplies electricity. • Identification of future customers and initial technical assessments undertaken.
<p>Financial Viability of project impacted by inflation, increased borrowing rates and energy prices (see also sensitivity section of this report).</p>	<ul style="list-style-type: none"> • Robust financial modelling audited by KPMG. • Secure additional HNIP funding and agree suitable terms. • Dialogue with preferred bidder to consider inflation mitigation measures. • Consideration of alternative lenders (UKIB). • Heat and Electricity supply contracts with customers includes methodology to index against ESPO once initial tariff is set with 6 monthly tariff reviews. • The ESCo has the right to validate the price of utilities against the ESPO purchasing framework if the DBOM contractor chooses to use an alternative provision. <p>Note: The sensitivity section of the Financial Implications in this report set out a number of risks relating to pricing, inflation and demand. The financial consequences of those variables are also presented in that section.</p>
<p>Technical – Major Failure Catastrophic Energy Centre plant failure e.g. explosion, fire, gas engine or heat pump failure that cannot be repaired.</p>	<ul style="list-style-type: none"> • Specification and design to mitigate the risk of explosion or fire by the DBOM contractor carrying out robust, systematic Hazard Identification Studies (HAZIDs) and Hazard and Operability Studies (HAZOPs) and to implement recommended measures. • DBOM contract requires contractor to accept this risk, and to take out suitable insurance. • Energy Centre design mitigates against the threat of an attack/terrorism.

	<ul style="list-style-type: none"> • Business continuity FAQs developed in partnership with preferred bidder (extends wider than catastrophic failure).
<p>Technical – Design Failure Network supply of heat availability is lower than expected caused by:</p> <ul style="list-style-type: none"> - poor design, installation or lack of maintenance, especially water treatment - Lack of pressure or temperate at customer connection - Leak on the network resulting in the need for shutdown for repair work 	<ul style="list-style-type: none"> • DBOM contract has penalties for low availability of network to reflect compensation payments to customers. • DBOM contractor responsible for cost of repairs to network, incentivising high quality in design, installation, operation. • DBOM contract includes penalty payments if water treatment not carried out correctly. • KPIs to be defined for use in the contract to enable penalties to be imposed.

6.5.2 In addition to the above, the Buro Happold report in the sensitivity section draws attention to a potential future risk of the private wire element of the project being unable to continue for the full 40-year period because of legislative changes driven by the decarbonisation of the UK’s energy infrastructure. This scenario is not quantified as it is not possible to assess if and when that service may end.

6.6 Equality implications:

6.6.1 In Solihull, on Council led projects the Council’s Fair Treatment Assessment (FTA) is used to:

- Help identify the likely impacts on certain protected groups whether such impacts disproportionately affect any protected group.
- Identify the actions we will take to address or mitigate against any negative impact identified from the assessment.

6.6.2 The project team will continue to liaise with the Equality and Diversity Lead to update the FTA as we proceed into the construction stage of the project.

6.7 Linkages to our work with the West Midlands Combined Authority (WMCA), Local Enterprise Partnership or the Birmingham & Solihull Integrated Care System (ICS):

6.7.1 The WMCA Investment Programme has supported the development of this project, if the scheme proceeds, the Full Business Case will be submitted to WMCA to approve

carry forward of the balance of funds to support project delivery. The Council has had promising dialogue with potential large customers around the town centre regarding the potential for the Energy Network to support their heating needs in later phases of its expansion.

7. List of Appendices referred to

- 7.1 Appendix 1 – Solihull Energy Shareholders Agreement
- 7.2 Appendix 2 – Solihull Energy Draft Business Plan
- 7.3 Appendix 3 – Network Expansion Opportunities
- 7.4 Appendix 4 – Draft Construction Programme
- 7.5 Appendix 5a – PRIVATE - Template Electricity Connection and Supply Agreement
- 7.6 Appendix 5b - PRIVATE – Template Heat Connection and Supply Agreement
- 7.7 Appendix 6 – PRIVATE - Buro Happold Financial Report
- 7.8 Appendix 7 – PRIVATE - Buro Happold Cashflow
- 7.9 Appendix 8 – PRIVATE - Council Cashflow
- 7.10 Appendix 9 – PRIVATE – Customer Pricing Strategy

8. Background papers used to compile this report

- 8.1 N/A

9. List of other relevant documents

- 9.1 N/A