Outline Application for the Construction of the Exeter Energy Centre including Data Centre and Ancillary Infrastructure. Seeking approval of Layout, Scale and Access.

Land Opposite Marsh Barton Station, Exeter

Prepared For

1Energy

3661

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bell cornwell

CHARTERED TOWN PLANNERS

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CONTENTS

1 INTRODUCTION

1.1 This planning statement is prepared in support of an outline planning application for the construction of the Exeter Energy Centre, which seeks to decarbonise heat across Exeter.

1.2 Exeter has set itself a target of achieving Net Zero Carbon by 2030. This is an extremely ambitious target, which is 20 years before the set target within the National Planning Policy Framework 2024. To help achieve this ambition, Exeter has been awarded more than £40 million in government funding for a green heating network in the city. The Exeter Energy Centre will receive £42.5 million to build a heat network using air source heat pumps. Buildings connected to the network will see an initial reduction of 65-75% in carbon emissions compared to gas heating.

1.3 This proposal will therefore provide and play a pivotal role in cutting carbon emissions across the city of around 13,000 tonnes of C02 per annum and will also provide for a data centre and large thermal store and will therefore make the City an exemplar of achieving carbon reduction.

1.4 It will therefore provide a very important and strategic role in the council in achieving their ambition of achieving Net Zero by 2030, significantly ahead of the government target.

2 BACKGROUND

2.1 In 2022, 1Energy Ltd conducted a techno-economic feasibility study of the Exeter Heat Network (EHN), building on prior city-wide assessments. This study outlines a potential low carbon city-wide heat network for Exeter, initially catering to key heat users with a total annual demand of approximately 92.7 GWh.

2.2 The study arrived at the following highlights and:

- Assessed 96 buildings for initial phase connections, with detailed surveys for high-demand buildings.
- Identified the network route, currently refining it in collaboration with DCC highways and heat users.
- Developed an energy strategy based on stakeholder input, focusing on low carbon heat generation opportunities.
- Created a techno-economic model for EHN, incorporating all study outputs.

2.3 Based on this feasibility study 1Energy successfully secured £42m grant funding from the Green Heat Network Fund for network and energy centre development for the Exeter Heat Network.

2.4 District heating is generally considered to provide the most cost-effective way to decarbonise heat at scale in cities. This is predicated on the ability to tap into existing waste heat sources, achieve economies of scale in terms of the efficiency that can be achieved through larger scale heat generation plant (compared to an individual building) but also spread the cost over many customers making the individual cost of connecting highly competitive compared to alternative low carbon heating solutions.

2.5 Public Sector organisations across the City of Exeter have challenging targets to decarbonise their estates. The University of Exeter and the RD&E NHS Trust have committed to achieving net zero by 2030 and 2040, respectively. The City and County Councils, and Exeter College have all set targets to be carbon neutral by 2030.

Collectively these five Public Sector bodies account for 57GWh/yr of heat demand, which equates to c.13,000 tonnes of CO2 per year. They will not be able to achieve their decarbonisation / net zero targets without decarbonising the heating of their buildings.

2.6 Exeter's heat network achieves these savings through a £42 million grant award and its energy strategy.

2.7 Decarbonising heating is crucial for these tax-payer funded organizations. Each will develop independent business cases to evaluate options to decarbonise, including connection to a District Heat Network, Air Source Heat Pump, Ground Source Heat Pump, and Electric boilers.

2.8 For city centre buildings, heat networks are often the only viable zero-carbon solution due to limited space, listed building status, and structural constraints. Decarbonising through a city-wide heat network offers additional benefits, including efficiency, security, compliance with regulations, cost-effective carbon reduction, clear tariffs, and no electricity upgrade costs.

2.9 The EHN will be significant cornerstone in helping Exeter reduce its carbon footprint and will produce a number of significant befits for the city:

1. 1Energy city-wide heat networks can accommodate various heat generation technologies, from Waste heat to heat pumps and hydrogen. The Exeter Energy Centre will be is optimised for heat pump use, seen as a future-proofed technology. Strategies are employed to ensure operational longevity, designing for a minimum 70-year life cycle:

2. Quality Equipment: Select premium, reliable equipment (e.g., Danfoss plate heat exchangers, Grundfos pumps).

3. Insulation: Use high-grade (series 3) insulated district heating pipe to minimise heat losses.

2.10 3. Capacity: Size energy centre and pipes for up to 50% future load expansion.

4. Optimisation: Engage M&E engineering experts for network performance optimisation.

5. Technology agnostic: 1Energy's energy strategy supports current and future heat generation technologies, e.g.:

a. Viridor energy recovery facility (ERF) waste heat at Marsh Barton

b. Water source heat pumps from the Exeter canal

c. Peak and reserve gas boiler installation ensures a resilient heat supply via multiple technologies.

d. Designed for future expansion and eventual zero-carbon supply.

2.11 1Energy remains committed to long-term sustainability and adaptability, ensuring a resilient, low-carbon future for its heat networks and have a Zero Carbon Commitment:

1. Aim to achieve a net zero-carbon heat network by 2030.

2. Avoids immediate transition to hydrogen or e-boilers due to high carbon emissions and cost implications to end customers.

3. Energy centre flexibility allows seamless technology transitions.

4. Focus on innovation, investigating existing and emerging sources of low carbon heat, such as; wastewater; sewage heat recovery; industrial processing plant waste heat; data centres; large Air Source Heat Pumps; and, geothermal heating and cooling

3 SITE DESCRIPTION

3.1 The site is located to the east of Marsh Barton Train station, on the southern side of Exeter. The site measures approximately 3.4ha in size and comprises grassland, which was once a playing field but has not been used for this purpose for many years. It is enclosed by trees on its northern and east side, and bordered and set down from the station to the north. Beyond the station is the Energy from Waste building which stands in total at around 60 metres high.

3.2 The site is adjacent to Clapperbrook Lane which leads past the northern part of the site and follows a path which runs over the Exeter Canal and then returns to run parallel to the Canal and the application site.

3.3 The site is within the Valley Park area of Exeter, is within a Flood Zone 3, an Exe Estuary Special Protection Area and is adjacent a County Wildlife Site.

3.4 It is proposed that Water Lane would be used as the initial access point to construct the proposal, rather than utilising the access along Clapperbrook Lane.

Figure 1: Site location © Google Earth

4 PROPOSALS

4.1 The scheme is made in outline seeking approval of matters of access, scale, and layout for a new Energy Centre (EEC) to facilitate the decarbonisation of Exeter. The EEC will include an Energy Centre, data centre, air source heat pumps, a 33Kv substation, 11Kv substations, gas kiosk building and a gatehouse and a large thermal store. The Energy Centre is envisaged as a single storey structure approximately 96m in length, 19.5m wide and 14.5m in height. The function of the Energy Centre is to accommodate plant equipment which produces 20MW+ of hot water to supply district heating networks across the city of Exeter.

4.2 This proposal will not only seek to reduce the amount of carbon by 13,000 tonnes, but it will provide wider benefits of cleaner air, helping Exeter to deliver its target of achieving Net Zero by 2030.

4.3 It will bring £110m of investment in Exeter, bring a significant boost to the local economy in the supply chain, bring local apprenticeship and make Exeter more attractive to businesses.

4.4 The outline nature of the application means that appearance is a reserved matter, but the application is supported by indicative drawings. The site will comprise the main energy centre, which will sit adjacent to a data centre, which will in turn sit by a gatehouse building. This will be the entrance point for the scheme, where attendees to the site can be briefed such as people who work at the site, but also school groups who can be shown around the site.

4.5 1Energy are committed to delivering the site sensitively and have proposed to provide a 20% biodiversity net gain on the site, well above the mandatory 10%.

4.6 The layout of the site is very much determined by the needs of the technology, but is also designed to work with the surroundings by being sited in the lowest areas of flood risk.

4.7 Centrally a road is proposed which would operate on a one way system to enable vehicles to come in and out of the site and leave in a forward direction. Once the site is operational, vehicle movements would however be extremely limited.

4.8 In terms of the scale, the proposed scale is designed to work with the site and would not be taller than the adjoining tree line that runs parallel with the canal. In scale terms the building is set well down from the height of the Energy from Waste building within which this context the buildings are proposed.

4.9 The vehicular access is proposed via a new priority T-junction arrangement onto Clapperbrook Lane, which will provide a 6.0m carriageway width and 2.0m wide footway on its eastern edge. To facilitate the new access point, the existing 3.0m wide footway / cycleway will be removed, however, a new uncontrolled crossing point (dropped kerbs & tactile paving) will ensure that low-risk movements can be achieved across the junction.

4.10 It is important to note that the short extent of footway / cycleway between the existing Marsh Barton Railway Station junction and proposed access is extremely flat and therefore, the required re-profiling of this footway to deliver the access works would not result in a 'hump' between the existing crossing point associated with the Marsh Barton Railway Station junction and the new crossing point.

4.11 It is proposed to formalise the existing access point to the north to provide a 6.0m carriageway width, along with a gate and fencing to ensure that the northern site can be secure when the access is not in use. Both access points will be suitably reinforced as part of the road construction to ensure that it can accommodate the anticipated vehicles that will access / egress the site.

4.12 The new access point will be provided without a junction radius or 45 degree splay on either side due to the immediate proximity of the Marsh Barton Railway Station junction, and as the access point is unable to be relocated any further to the north-east.

4.13 On the 'worst-case' basis that the maintenance / operative staff, visitors, deliveries, and school visit all fall on the same day, the proposed EHN Facility would generate 11

arrivals and 11 departures, totalling 22 two-way vehicular trip movements across the daily 12hr period (07:00 - 19:00 hrs). The 'worst-case' forecast trip generation equates to approximately one two-way vehicular trip movement every 33 minutes across the daily 12hr period.

5 SITE HISTORY

5.1 There is no immediate planning history with the site, but previously, it was used as a compound for the construction of Marsh Barton railway station.

5.2 Historically, the site was envisaged within the Exeter Masterplan as a potential camping ground with BBQ areas and rentable festival space.

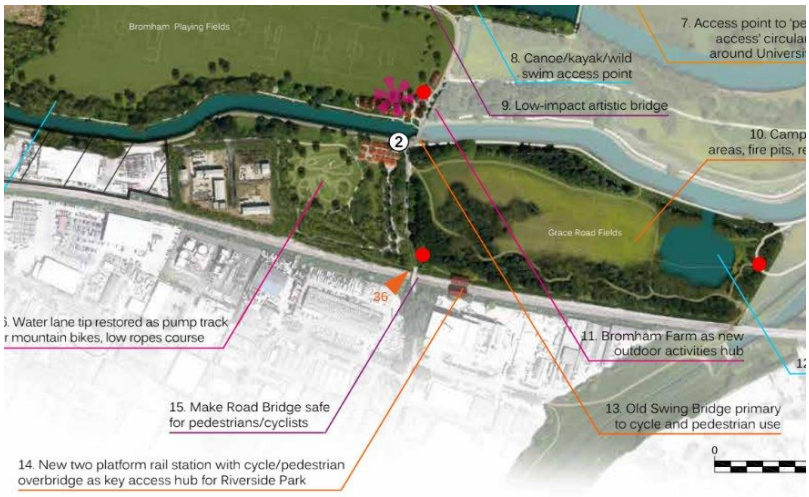

Figure 2: Extract from Exeter Masterplan

5.3 However, it should be noted that the site to the north of the site was envisaged as a BMX pump track, but has subsequently been developed to be a large solar farm and Exeter granted themselves planning permission for their own scheme contrary to the Masterplan.

5.4 The planning officer report the application specifically says that the "Masterplan is not endorsed for development management purposes and carries limited weight in decision making." Therefore, this site is not bound by the aspirations of the Masterplan.

5.5 Historically, the site has been part is a part of a development allocation in the Exeter Local Plan 1st Review and this allocation has now been carried through in the emerging Draft Exeter Plan where it is shown as part of a mixed-use allocation. There is therefore a clear intent that this site will be put to a reuse.

Figure 3: Extract from Regulation 19 Local Plan

6 COMMUNITY ENGAGEMENT

6.1 As part of the proposals 1Energy have sought to engage with the public and have consulted extensively on this scheme. This has included two public consultations have taken place between July 11th and August 1st 2024 offering opportunities for the local community to discover more about the proposals for the energy centre and provide feedback to the project team.

6.2 A detailed stakeholder mapping exercise identified potential interested parties, including those who could be impacted by the proposals such as local residents and businesses. By understanding each stakeholder group, engagement activities and communication channels were developed to provide a variety of ways for everyone to access and take part in the consultation. Door drops, newspaper advertorial, digital media advertorial, press releases, and the project website were all used to promote the public sessions and overarching consultation.

6.3 A leaflet was delivered to nearby business and residential properties. 13,000 leaflets were deliveries to properties covering all of Alphington and St Davids, part of Priory (river side of the Topsham Road) and part of St Thomas (east of Buddle Lane) as well as the Marsh Barton trading estate.

6.4 Newspaper adverts were placed in the Express and Echo on 27 June and 4 July, supplemented with a two-week digital campaign on DevonLive.com with an Exeter focus. Adverts were also placed in the local Reach social media platform, In Your Area.

6.5 There has been media coverage which included articles on the *BBC* on the 11th July and in *Devon Live* on 10th July.

6.6 A preview session was offered to local councillors, prospective customers, stakeholders representing the River Exe, nearby businesses and media stakeholders.

6.7 The preview was followed by public exhibition sessions that were open to all, including local residents. The events were held at relevant locations across Exeter at times that allowed visitors to attend around employment and personal commitments.

6.8 During the public sessions, all visitors were able to view the plans across a series of display boards, ask questions from a range of technical consultants and the project team, as well as provide written and verbal feedback on the project.

6.9 The project website – www.exeter.energy – hosted an online consultation space and provided detailed information about the plans including a full set of Frequently Asked Questions (FAQs) and the display boards from the exhibition events. Interested parties had the opportunity to feedback on the Energy Centre plans in a variety of ways including paper feedback forms at the events, emails into a dedicated mailbox – exeter@1energy.co.uk – as well as a dedicated PO Box. The comments received on the plans through feedback forms were predominantly positive, highlighting several key benefits. Respondents appreciated the heat network as a whole, praising its potential environmental benefits, including carbon reductions. The project was seen as innovative and exciting, with potential to enhance energy security and reduce dependence on external sources. Job creation was also mentioned as a positive outcome. However, some practical queries were raised regarding the cost of the energy. There were also requests for additional information.

6.10 Full details of the community involvement are included within the planning application submission.

6.11 In addition to this public consultation, 1Energy also presented the proposal to the Exeter Design Review Panel (DRP). The panel acknowledge the amount of positive work that has been undertaken to date, this is a **fantastic project** to be celebrated, and the design team presented with passion and evidenced the need for a scheme that would support the City's proactive approach to a net zero future.

6.12 Some areas to enhance the scheme were identified and 1Energy will be working closely with the council to discuss these matters.

7 PLANNING POLICY

RELEVANT PLANNING POLICY AND GUIDANCE

7.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 require that planning applications should be determined in accordance with the development plan unless other material considerations indicate otherwise. In this case, the key development plan documents of most relevance are as follows:

- Exeter Core Strategy (2010);
- 'Saved' policies from the Exeter City Local Plan First Review (1996).

7.2 In accordance with the NPPF, the 'saved' policies contained in the adopted development plan should be given weight in the decision-making process to the extent that they are consistent with the principles set out in the Framework.

EXETER CORE STRATEGY

7.3 The Core Strategy sets out the vision for the City and says that Exeter will embrace its role in the region as an area for growth by delivering development to enhance Exeter's position as a premier retail and cultural destination.

7.4 **Objective 1 – Mitigate and adapt to climate change** is to make the fullest contribution possible to the mitigation of, and adaptation to, climate change and the transition to a low carbon economy by, in particular:

- In partnership with other, promoting the efficient use of natural resources the reuse and recycling of resource3s, and the production and consumption of renewable energy.
- Encouraging and facilitating the development of low and zero carbon energy development which reduces CO2 emissions and the city's exposure to high fossil fuel prices, and improves the city's energy security; and,
- Linking the provision of low and zero carbon energy infrastructure in new developments to existing buildings to create more viable schemes and expand the benefits of such schemes more widely across the city.

7.5 **Objective 2 Develop the potential for economic and commercial investment**. This policy identifies that the potential for the city for further economic and commercial investment by diversifying the Exeter economy with a focus on low and zero carbon technology.

7.6 **Policy CP12** – This identifies the precautionary approach to flooding and all proposals must mitigate against flood risk utilising SUDS where feasible and practical.

7.7 **Policy CP14** Renewable and low carbon energy. This policy supports decentralised and renewable or low carbon energy sources to support new development.

7.8 **Policy CP17** – All proposals must exhibit a high standard of sustainable design, that is resilient to climate change and complements Exeter's character, local identity and cultural diversity.

EXETER LOCAL PLAN FIRST REVIEW 1995-2011

7.9 The Exeter Local Plan First Review sets key themes and aims for the City Council which includes, amongst other aims, "creating a prosperous City, and a cultural and fun place to be." The relevant polices are:

7.10 **Policy KP6** sets out high-level development aspirations for Water Lane. The is includes a wide mix of development and activities over a substantial area.

7.11 **Policy EN1** says that development must consider the amenity of users of the site and surrounding area.

7.12 **Policy EN5** says that noise generating development will not be permitted if it would increase adversely the noise experienced by the users of existing or proposed noise sensitive development nearby.

7.13 **Policy T1** – says that development should facilitate the most sustainable and environmentally acceptable modes of transport.

7.14 **Policy L3** seeks to protect open space unless it no longer does not fulfil a valuable recreational, community ecological or amenity role and there is adequate open space in the area.

EMERGING LOCAL PLAN

7.15 At the time of submitting the application, Exeter have published their Regulation 19 Local Plan. This identifies that the city's ambition, to be net zero carbon by 2030, is 20 years earlier than the 2050 national net zero target required under the Climate Change Act. This is an incredibly challenging ambition, Success will only be achieved through engagement and a genuinely collective effort.

7.16 **CC1 – Net Zero Exeter**. This policy will support proposals where they can maximise renewable and low carbon energy generation.

7.17 **CC2 - Renewable and low carbon energy**. This sets out that the City council will support proposals where its impacts are acceptable.

7.18 **CC3 – Local Energy Networks.** This strategic policy proposed local energy networks in locations including Marsh Barton, Water Lane, and other locations around the city where it is shown to be feasible and viable to bring forward.

7.19 **Policy - CC8 Flood Risk** sets out how the City Council will consider flood risk. In all areas development will need to integrate Sustainable Drainage Systems (SuDS) into the design and layout.

7.20 **Policy NE1 (landscape setting)** seeks to protect Exeter's landscape and will only permit development where there is no harm to its character, or it minimises harm and is reasonably necessary for the purposes of achieving net zero or delivering climate resilience, or, it delivers strategically important infrastructure and it can be demonstrated that there is no suitable alternative with less harmful impacts.

7.21 **Policy NE2 (Landscape and setting areas)** reiterates policy NE1 and allows for development where it provides for environmental education, manages flood risk, or **supports achieving net zero or delivering climate resilience.**

7.22 **Proposed allocation: SBA1 Water Lane**. This identifies the Water Lane area for a mixed use development, which must support the achievement of net-zero and which delivers an energy strategy which minimises carbon emissions, incorporates renewable technology and helps to deliver and connect, local energy networks.

NET ZERO EXETER 2030

7.23 The Council has declared a climate emergency and pledged to work towards creating a carbon neutral city by 2030. This states that energy is essential for the city. Rising energy prices, energy inefficient housing and low income have resulted in high levels of fuel poverty. It says that Exeter will exploit the maximum potential for renewable generation (solar, wind, geothermal). Investment into enhanced renewable energy generation and storage; including solar, wind, marine and geothermal, energy storage technologies and improving efficiency of generation.

LIVEABLE EXETER WATER LANE SUPPLEMENTARY PLANNING DOCUMENT (DRAFT 2023)

7.24 This identifies Water Lane as a key strategic brownfield redevelopment area in Exeter and one of the biggest sites of the liveable Exeter initiative. As set out it contains business premises and workshops, utilities, car park leisure and community facilities and the Grace Road playing fields (now disused). The illustrative framework identifies the site as a wildlife, nature, and renewable energy opportunity.

7.25 **Policy S15** (Grace Road Fields) identifies that the uses being considered for the Grace Road Fields include BNG, sports and recreation hub, **energy centre**, allotments, and solar farm.

NATIONAL PLANNING POLICY FRAMEWORK (NPPF) 2024

7.26 The National planning Policy Framework was updated in December 2024 and places significant weight upon renewable energy stating that the planning system should support the transition to net zero by 2050 (paragraph 161).

7.27 Paragraph 165 says that to help increase the use and supply of renewable and low carbon energy and heat, plans should: a) provide a positive strategy for energy from these sources, that maximises the potential for suitable development, and their future re-powering and life extension, while ensuring that adverse impacts are addressed appropriately (including cumulative landscape and visual impacts).

7.28 The NPPF is clear that the planning system should be taking a proactive approach to mitigating and adapting to climate change. NPPF Paragraph 168 says that "when determining planning applications for all forms of renewable and low carbon energy developments and their associated infrastructure, local planning authorities should:

a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future;

b) recognise that small-scale and community-led projects provide a valuable contribution to cutting greenhouse gas emissions;

7.29 Paragraph 86 says that local plan policies for economic development should pay particular regard to facilitating development to meet the needs of a modern economy, including by identifying suitable locations for uses such as laboratories, gigafactories, **data centres**, digital infrastructure, freight, and logistics.

TECHNICAL DETAILS

7.30 The proposal is supported by a suite of accompanying technical information to address matters of:

FLOOD RISK

7.31 A detailed Flood Risk Assessment (FRA) and drainage strategy has been provided by Clarkebond.

7.32 It is identified that the site is within flood zone 3 and in accordance with Flood Risk and Coastal Change planning guidance; Annex 3: Flood risk vulnerability classification (associated with the NPPF), the proposed district energy use of the development is classified as 'Essential Infrastructure'. In accordance with the guidance, development is appropriate within these zones where it meets the exception test. Appended to this statement is an exception test which has assessed sites across Exeter, and all of these have been found to be either allocated for development, have existing planning permissions, have been sold and are unavailable or are also within the flood zone.

7.33 The location of the proposed district energy network is strategically important to support the redevelopment of adjacent Marsh Barton as part of the Liveable Exeter programme to deliver a substantial number of new homes as part of a mixed use community. The plans could see around 5,000 homes built, mainly in apartments, remain an important employment and retail area, but with the integration of living and working where uses are compatible, to make better use of the riverside location, as well as new workspace, and community space and school sites. The Marsh Barton site is proposed for allocation under policy H2 (Strategic Mixed-Use Allocation) under the draft Exeter Plan to 2040.

7.34 The FRA identifies that the NPPF says that flooding should not be increased elsewhere Development, supported by a specific site specific flood risk assessment will only be allowed where it will ensure that the most vulnerable development is located in areas of lowest flood risk, is flood resilient, incorporates sustainable drainage systems, residual risk can be managed and safe and escape routes are included.

7.35 The report identifies measures to address these matters. The finished floor level for the proposed buildings will be set to a minimum of 7.04AOD. The majority of the buildings will be built above the minimum floor level. Resilience measures will be incorporated such as sheet materials horizontally and the use of flood resilient flooring to minimise the potential flood impacts. Services such as air conditioning and electricity would be raised above the potential floor level.

7.36 The main access to the site is along Water Lane with pedestrian access via Clapperbrook Lane. There will not be any staff based on the site permanently, however year round access will be required for maintenance and routine inspections.

7.37 The consideration of safe access/egress in the event of a flood has been undertaken for all of the five key development sites including Water Lane as part of the revised Level 2 SFRA. Whilst the development of these sites includes residential areas which are classified as 'More Vulnerable' in terms of flood risk vulnerability and therefore have more stringent access/egress requirements, the following proposals will provide positive benefits to the site;

"A raised route (elevated above the design flood level) via Trews Weir has been identified to be the preferred option. This route would start at the embankment adjacent to the eastern side of the railway line, south of Tan Lane. From here the route would head east via an elevated cycle path, a bridge would provide a crossing over Water Lane, leading to the dry ground within the Old Gas Works site. A path would lead around the southern edge of the Old Gas Works site where it would join a bridge of the Exeter Ship Canal, before linking to further bridges (connected by elevated cycle paths) over the Flood Relief Channel and River Exe. Finally, an elevated cycle path would connect the River Exe bridge to dry ground on Bell Isle Drive."

7.38 In summary it is concluded that the site is located within Flood Zone 3 related to the River Exe, with the extents not expected to differ significantly within the lifetime (60-75 years) of the development. The location of the proposed district energy network is strategically important to support the redevelopment of adjacent Marsh Barton as part of the Liveable Exeter programme to deliver a substantial number of new homes as part

of a mixed use community and as such, the site is considered appropriate for development on flood risk grounds.

7.39 This FRA has sought to develop suitable measures to demonstrate the safety of the units and its users over its lifetime, including the management of residual flood risk, considering climate change without increasing flood risk elsewhere. These measures will satisfy the Exception Test and as such the proposals will be suitable for the location and safe from flooding for their lifetime.

ECOLOGY AND BIODIVERSITY NET GAIN

7.40 GE Consulting have supplied a detailed ecology report.

7.41 It is identified that the site has been cleared since 2020 due to it being used as a site compound. Previous habitats included modified grassland and small parcels of mixed woodland. It does not sit within any designated site, but it is adjacent to a County Wildlife Site (CWS). Other CWS are around 1.1km to the east and 1.7m to the north. There are five Other Sites of Wildlife Interest (OSWI), three Unconfirmed Wildlife Sites (UWS), three Devon Wildlife Trust Nature Reserve (DWT), and one Ancient & Semi-Natural Woodland sites (ASNW) within 2km of the Site boundary, the nearest 0.8km east.

7.42 There are multiple Exeter Green Spaces, Exeter Biodiversity Network and Exeter Valley Parks within 2km of the Site. The nearest are directly adjacent to the Site along the Exe River and Exeter canal.

7.43 The type of fauna and flora are identified within the report. However, it is important to note that while the site lies adjacent the Exeter Canal CWS, the Site is not within the 10m riparian zone of the canal, and the habitat present on Site is not indicative of this designated area. The small scale of works means it is considered very unlikely that the proposals will impact this designation, and given their distance from other designated sites and the small scale of the proposed development, no impacts are predicted to affect designated sites.

7.44 The site is of relatively low ecological interest, with minimal adverse impacts predicted on important ecological features. Mitigation and compensation have been incorporated into the design to ensure that the proposal and work programme is designed to minimise adverse impacts on ecological features.

7.45 Enhancement features have also been described with the aim of providing an increase in wildlife opportunities on Site post-development, contributing to the aims of National Planning Policy Framework and local policy. An indicative Biodiversity Metric has been supplied which shows 45.4%. The assessment will be updated based on final plans for the development, as part of the pre-commencement BNG condition.

NOISE

7.46 The proposal is accompanied by a noise assessment by Clarke Saunders Acoustic Consultants. The local soundscape at the proposed development site is predominantly determined by industrial noise from Marsh Barton Trading Estate and a train line.

7.47 The local soundscape at the proposed development site is predominantly determined by industrial noise from Marsh Barton Trading Estate and a train line.

7.48 It was however noted that the River Exe also contributed to background noise, but there were also periods when water flow noise significantly decreased due to high tides.

7.49 Survey data has been gathered to determine noise emission criteria at the nearest noise sensitive receptors.

ARCHAEOLOGY

7.50 A detail archaeological survey has been carried out by Cotswold Archaeology.

7.51 This assessment has included a review of a comprehensive range of available sources, in accordance with key industry guidance, in order to identify known and potential archaeological heritage assets located within the Site and its environs which may be affected by the proposals. The significance of the identified heritage assets has been

determined, as far as possible, on the basis of available evidence. The potential effects upon buried archaeological remains have been assessed.

7.52 There are no designated heritage assets recorded within the Site. There are also no World Heritage Sites, Scheduled Monuments, Battlefields, or Registered Parks and Gardens recorded within the study area. The closest Scheduled Monument to the Site is the linear round barrow cemetery at Castle Park, Alphington.

7.53 The assessment has identified that there is potential for prehistoric and Roman period remains within the Site. Evidence of activity from the Bronze Age, Iron Age and Roman period have been recorded within the surrounding landscape, mainly in the south and north of the study area. A number of cropmarks identified on aerial images have the potential to relate to ploughed out Bronze Age barrows or Bronze Age to Iron Age roundhouses. A number of Bronze Age barrows are present in the Site, with a barrow cemetery located at Castle Park in Alphington.

7.54 There is also the potential for the remains of medieval activity within the Site. This land is in the hinterland of the medieval settlements of Exeter and Alphington. Occupation of the land itself appears to be limited, likely due to the land periodically flooding, although records of a farm, known as Bromham's farm, date to as early as 1358-9. Remains of this medieval farmstead potentially survive below ground in the vicinity of the Site, although they may have been partly disturbed by the construction of the flood relief channel. A series of medieval field boundaries seen as cropmarks in aerial images are also present within the Site and form part of a larger field system seen extending westwards beyond the Site. The Exeter Canal, first constructed in the 16th-century, also passes the Site. The construction works associated with the proposed development have the capacity to affect the potential buried archaeological resource. Further archaeological investigation is likely to be required to provide further information on the nature of the potential remains and any mitigation that might be required. Potential effects could be sufficiently reduced through the implementation of an appropriate programme of archaeological mitigation and careful consideration should be given to the development due to the potential for the remains of prehistoric ring ditches and

medieval field boundaries. The requirement and scope of any further archaeological works should be agreed through consultation with the Archaeological Advisor to Exeter City Council.

CONTAMINATED LAND

7.55 A Contaminated Land Study has been carried out by Ramboll. The details of the findings of the report are attached to this application.

7.56 The preliminary risk assessment did not identify significant historical and current on-site sources of potential contamination. The site has been undeveloped throughout its history likely in agricultural use prior to being utilised as recreational grounds. Since 2021, the site has been in use as storage (potential construction materials and aggregates) and car parking with the construction of temporary buildings and hardstanding. It is not clear whether the construction of the current development onsite involved a cut and fill exercise or import of material onto site.

7.57 A review of the surrounding area's history highlighted industrial land use within 250m of the site, including Water Lane landfill immediately adjacent to the northwest of the site (recorded as receiving inert, industrial, commercial and household waste); Great Western Railway bounding the site to the southwest since the 1880s; and the Marsh Barton Trading Estate to the northwest, west and southwest of the site from the 1960s comprising depots, yards, works, tanks, warehouses, a garage and a refuse incinerator. As such, there is the potential for contamination to be present in soils and groundwater due to off-site contamination sources.

7.58 To identify the risks posed by these potential contaminative sources to the site sensitive receptors, it is recommended that a Ground Investigation is undertaken followed by a Generic Quantitative Risk Assessment, and to refine the Conceptual Site Model and potential risks identified within the report.

ACCESS

7.59 The application is submitted with a detailed Transport Assessment by Advance Consulting Engineers Ltd.

7.60 Vehicular access is sought to be provided via a new priority T-junction arrangement onto Clapperbrook Lane, which will provide a 6.0m carriageway width and 2.0m wide footway on its eastern edge. To facilitate the new access point, the existing 3.0m wide footway / cycleway will be removed, however, a new uncontrolled crossing point (dropped kerbs & tactile paving) will ensure that low-risk movements can be achieved across the junction.

7.61 The details are attached to this application, and it is concluded that the proposed development is unlikely to have an unacceptable impact upon highways safety and the surrounding highway network.

7.62 In terms of visits to the site, main vehicular trip movements will be associated with the construction phase of the EHN Facility and the associated pipework throughout Exeter. The number and impact of these movements will be addressed and mitigated as part of their respective Construction Traffic Management Plans (CTMPs).

7.63 On this basis, it is concluded that the proposed development will not result in an unacceptable impact upon the operation of the surrounding highway network and will fall within the daily variation of traffic throughout Exeter, therefore allowing for the free-flow and safe movement of traffic along the local, primary & SRN.

7.64 It is in a highly sustainable location with access to walking, cycling, bus and train facilities.

TREES

7.65 A tree survey report and tree protection plan by GE Consulting accompanies the application. It is identified that a single tree will have to be removed at the access point One tree in G12 requires removal for an access road. However, an existing access track

previously existed in this area of the Site meaning that there is likely to be historic soil compaction, and rooting morphology is likely to limited in this area. Therefore, it is recommended that alternatives to removal be investigated and submitted as part of a subsequent reserved matters application. However, this is shown as removed in this instance to ensure all eventualities are fully assessed.

7.66 The removal of two trees will have an impact on the amenity value of the site and immediately adjacent areas. However, the removal of the above arboricultural features will be compensated by the implementation of a tree replacement strategy during the soft landscape phase of the development. Therefore, any impact on the amenity value is only likely to be short-term, whilst the replacement planting matures sufficiently to replace and enhance the value of the site.

7.67 It is concluded that the proposal will not result in any harm upon trees.

LIGHTING

7.68 A lighting assessment has been carried out by Fairheat. The plant can be remotely operated but regular inspection and maintenance of the equipment is required. Routine maintenance will be conducted in normal working hours with no specific requirements for nighttime working. However, emergency equipment failure may result in night-time maintenance work.

7.69 Much of the maintainable equipment is housed within buildings. The building designs do not include windows or visions panels so the internal task lighting will be contained. There is external plant which could require emergency nighttime maintenance work, these include.

- Air Source Heat Pump Evaporators
- Data centre generators

7.70 It is not proposed to provide fixed external task lighting, due to the low likelihood of undertaking nighttime maintenance work. If night-time work is required mobile task lighting will be used.

7.71 As night-time maintenance work is not a normal operational procedure there is no requirement to illuminate the external access routes around the site. Maintenance personnel traveling to site will be required to drive onto site and will park close to the point of work. However, the use of illuminated traffic bollards to aid pedestrian movement around the site is being considered.

7.72 Due to the flood risk constraints the buildings and external plant will be raised. Access and egress will be provided via external staircases and platforms. For health and safety purposes the external access steps and platforms should be illuminated. If this is proposed this will be achieved using passive infrared motion sensor lighting.

7.73 The environmental impact assessment makes the following recommendations regarding the site lighting:

- *"Lighting will be kept a minimum with an ecologically sensitive lighting strategy provided which will be agreed by the ecologist. No lighting will be used externally except for essential security lighting that will be required, which will be on timed PIR sensors which are expected only to be activated very infrequently. This will retain the lux levels to a minimum and continue to provide flyways adjacent to all boundaries of the Site.*

- *Any proposed external lighting including that mounted onto the building will follow the following principles in line with the Bat Conservation Trust (BCT) and Institute of Lighting Professional (ILP) guidance (BCT/ILP, 2023):*

- *Minimise the number of luminaires required;*

- *Set on passive infrared motion sensors of a short duration timer (e.g. 1-2 minutes);*

- *Warm coloured bulbs that do not emit light from the UV end of the spectrum – equal to or less than 2700 kelvin;*

- *Light sources with peak wave lengths higher than 550nm;*

- *Lighting must be directional and downwards pointing;*

- *The use of internal lighting design solutions to minimise light spill from external lighting along the pathways will be implemented in line with the BCT/ILP guidance (2023) ideally below 0.5lux."*

7.74 The detailed lighting design will ensure compliance with the environmental impact assessment recommendations.

AIR QUALITY

7.75 An Air Quality Assessment has been carried out by Ramboll.

7.76 Available air quality monitoring data and Defra background concentrations indicate that existing long- and short-term NAQOs for NO2, PM10 and PM2.5 are likely to be met at the site. The assessment of potential impacts to air quality during the construction stage has identified that the activities, together with the location of nearby sensitive receptors results in a low risk for dust soiling effects in relation to earthworks, construction and trackout activities (no demolition will occur onsite). The dust risk for health effects is predicted to be low for earthworks, construction and trackout.

7.77 Dust impacts would be effectively controlled using suitable mitigation measures outlined in this report which should be implemented through the provision of a dust management plan. This plan should be agreed with Exeter City Council (ECC) prior to the start of construction. With the mitigation in place, the construction effects would be not significant. During the operational stage, the energy centre itself is unlikely to affect air quality as the primary source of heat generation will be from air source heat pumps (ASHPs). However, five gas reserve boilers are proposed which will be used when the ASHPs cannot operate (although only four will operate at any one time) and four emergency generators are proposed to provide power to the data and energy centres in the event of an electricity supply failure.

7.78 The assessment of potential impacts to air during the completed development stage included consideration of emissions from the gas reserve boilers and emergency diesel generators. A detailed modelling assessment showed that the Proposed Development would not lead to exceedances of relevant NAQOs or result in significant air quality

impacts at any sensitive human or ecological receptor locations. Overall, it is concluded that there are no air quality constraints to the Proposed Development.

LANDSCAPE AND VISUAL IMPACT

7.79 The landscape assessment explains the constraints of the site and highlights the visual receptors. Please see the detailed report for an assessment of each viewpoint.

7.80 The site has a potentially conflicting landscape context where it forms part of both the Riverside Valley Park and an allocated development site. However, the nature of the Proposed Development and size of the Site provides opportunities to balance those two requirements.

7.81 The appraisal has identified that there would be limited visibility or landscape change resulting from the Proposed Development beyond the immediate context of the Site. This is primarily due to the limited height of the Proposed Development in comparison to the Energy Recovery Facility to the west and the tree belts located around the Site which are to be retained.

7.82 The proposal provides for formalised access arrangements around the outside of the development area, and opportunity to delivery an increase to biodiversity net gain and green infrastructure provision.

7.83 There will be opportunities to further develop the landscape and architectural design approach in response to the local landscape character, to deliver a high quality scheme that responds in detail to the local policy context outlined within this LVA.

7.84 The current design response and Site Masterplan demonstrates that these aspirations and principles are deliverable within the constraints of the Site and operational requirements of the Proposed Development.

7.85 Landscaping will be a reserved matter. At this stage, the following will be taken into consideration:

- Explore opportunities to rationalise the Site layout to provide a clean and high quality frontage towards Clapperbrook Lane East.

- Consideration of the colour and material of all elements of the Proposed Development, including the Thermal Stores, or potentially some form of screening around features where it is not possible to do so;

- Discussion with the relevant stakeholders to develop a landscape scheme that helps to integrate the Site into its context, balancing design that responds to flood risk considerations alongside landscape and visual issues;

- Design of a high-quality circular walking route around the Site that includes natural play and interpretation elements describing the surrounding 'energy landscape;'

- Selection of tree species that contribute to biodiversity, seasonality, and visual amenity of the Exe valley;

- Work with Exeter City Council to agree a holistic landscape approach to the whole land parcel of the former Grace End Playing Fields site;

- Review of the landscape proposals against the Urban Greening Factor calculations and develop as appropriate to meet requirements;

- Explore opportunities for greening of development elements where possible, such as roof spaces;

- Development of an integrated landscape, ecology, and drainage design to deliver multifunctional green infrastructure.

7.86 In summary therefore whilst recognising the sensitivity of the site there are opportunities to develop the landscaping and architectural design within the site without harming the landscape setting.

8 PLANNING CONSIDERATIONS

Principle

8.1 The Vision for the City, as set out within the Core Strategy, says that Exeter will embrace its role in the region for growth through supporting infrastructure and through sustainable urban extensions to the south.

8.2 In achieving this vision a number of objectives are set out, the first objective is to mitigate and adapt to climate change by:

- making the fullest contribution possible to the mitigation of, and adaptation to, climate change and the transition to a low carbon economy by:
- In partnership with other, promoting the efficient use of natural resources the reuse and recycling of resource3s, and the production and consumption of renewable energy.
- Encouraging and facilitating the development of low and zero carbon energy development which reduces CO2 emissions and the city's exposure to high fossil fuel prices, and improves the city's energy security; and,
- Linking the provision of low and zero carbon energy infrastructure in new developments to existing buildings to create more viable schemes and expand the benefits of such schemes more widely across the city.

8.3 Policy CP1 sets out the spatial approach across the city, giving preference to sustainable locations, and focusing on the Water Lane area and in the east of Exeter where low and zero carbon transport infrastructure is in place or can be made available.

8.4 The supporting text to policy CP3 identifies that for both new and existing development the provision of low carbon energy supplies will be key. If sustainability is to be achieved, provision must be made for suitable green/environmental infrastructure, such as Sustainable Urban Drainage Systems (SUDS), open space, Combined Heat and Power

(CHP) and district heating systems and effective environmental services such as recycling and refuse collection.

8.5 The preamble to Policy CP13 recognises that working in partnership with developers and other organisations, a decentralised energy network can be established. As stated previously in this statement, there has been significant investment in the site which is part of a £80.6 million package announced by the Department for Energy Security and Net Zero to develop greener, low-cost heating systems across England.

8.6 Policy CP13 is explicit in stating that decentralised energy networks will be developed and brought forward. The Energy Centre as a key piece of infrastructure would comply with the thrust of these policies which identify that to achieve a reduction in greenhouse gases, that alternative forms of power generation must be considered.

8.7 To support the move to a low carbon future Policy CP13 of the Core Strategy sets out the Council's approach to establishing decentralised (or local) energy networks. The policy refers to existing or proposed networks but does not identify these. The strategy for carbon reduction has a significant number of components. A key contributor is low carbon energy generation which makes much more efficient use of energy inputs than centralised power generation in a limited number of very large power stations. On average, centralised power generation is only 30% efficient, whereas decentralised generation is typically twice as efficient. The greatest efficiencies can be achieved through linking Combined Heat and Power (CHP) plants including Energy from Waste (EfW) plants, to local energy networks. These provide heat and electricity by burning gas, biomass or waste material and distribute the heat via a heat network. The City Council's policy is to ensure that developers use their best endeavours to help deliver CHP plants and heat networks in areas of major new development. To this end, the City Council has already identified three areas where the scale of development or the heat use opportunities are sufficiently great to justify the planning, design, and delivery of heat networks.

8.8 The NPPF is clear that the planning system should be taking a proactive approach to mitigating and adapting to climate change. NPPF Paragraph 168 indicates that "When

determining planning applications for renewable and low carbon development, local planning authorities should:

not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future;

8.9 This proposal will bring significant benefits to Exeter and the provision of an energy centre is supported both by local planning policy and the provisions of the NPPF 2024 which seek to significantly lower carbon emissions.

Location

8.10 In terms of the location of the proposal, the site forms part of an overall allocation within the Exeter Local Plan. It is identified that, as part of the 'key proposals' within the local plan that the Quay and the Canal Basin Area are at the heart of the council's strategy.

8.11 The proposals for the area are envisaged to be a wide mix of developments and activities over an area including the quay, Canal Basin, and the Water Lane area. This also covers the Canal Banks whereas part of the local plan it was envisaged that a camp site would be considered.

8.12 The site is identified within the Riverside Masterplan as an area for camping grounds and rentable festival space. However, it should be noted that the site to the north was shown as a pump track for mountain bikes, and this has since become a site for a solar array installation. This proposal should therefore be determined on its own merits in accordance with the Development Plan and any other material considerations. The Riverside Masterplan is not endorsed for development management purposes and carries limited weight in decision making. There is currently no planning permission for the use of the land and therefore this application must be determined on its own merits.

8.13 The emerging local plan identifies that the spatial strategy will deliver on Exeter's Vision 2040 including the ambitions for net zero, and will look to other stakeholders to deliver these ambitions. This includes considering modest greenfield development. As

identified on the proposal's maps, the site is identified as a strategic mixed use allocation along with Water Lane and much of Marsh Barton.

Figure 4: Extract from Regulation 19 Local Plan

8.14 All the River along the Exe is subject to some sensitivity or is within a Valley Park. The location of this proposal is optimal because it is close to the train station and access routes, and it would be read against the backdrop and can utilise the Energy from Waste facility. As a previous site used for the construction of the railway station and on a former playing field which it has been identified as disused and suitable for other uses through the existing and emerging local plan. It is considered that this site is the best available and would go a significant way in meeting the Councils own reduction in C02 emissions targets.

8.15 Whilst the site has previously been used for playing fields, this use has been become redundant, and as mentioned it has been included as an allocation for alternative uses, including a renewable technology opportunity. The aim of the council is to provide playing pitches within more central locations and located close to the communities which use them. The council have been working on supplying new playing facilities to the north of this site.

8.16 Furthermore, whilst this site is within the Valley Park, brownfield opportunities are very limited. It is stated within the local plan that a range of suitable sites for economic development is essential to deal with structural change and to develop and exploit new

technologies. In this case, the building would exploit the opportunities of the proximity of the Energy from Waste building and in the future, it offers the capability to use the Exe as a source of energy.

8.17 It will be supported by a genuine choice of access by transport. This site is directly opposite the train station, on a bike route and close to bus services.

8.18 Locationally therefore the proposal is sited where it can make maximum use of natural resources, and provide an alternative form of energy for the city, which will assist in it meeting the reduction in C02 levels as required by the council.

8.19 Whilst the proposals are within the flood zone, a site specific flood risk assessment has been supplied with the application. A sequential test and exception test has also been supplied which identifies why this is the most suitable location. Whilst flooding is a constraint to the site, this has been examined to a very high level of detail through both the FRA and hydraulic report. Given the considerations the orientation and the layout, everything has been designed to ensure that the proposal does not cause a risk to flooding elsewhere has been taken into consideration in the design and layout.

Sequential and Exception Test

8.20 A sequential test is attached to this planning statement and identifies other sites which have been examined for their suitability to provide an Energy Centre. As evidenced, these sites are also in the flood zone, are unavailable, or do not offer the size of site or the ability to connect to the river at a later date. Sequentially therefore, the energy centre can only be constructed in this proposed location. In terms of passing the exception test, this proposal will provide significant sustainability benefits in helping the city achieve its carbon zero status.

8.21 The proposal therefore clearly aligns with the provisions of the national planning policy framework and the local plan which seek to drastically reduce carbon emissions.

Highways

8.22 The highways information submitted demonstrates that there would not be any adverse impact upon the highway network or road safety.

Noise

8.23 Further noise information will be submitted as the plant has not yet been selected, but initial surveys have been taken at receptors and will be used to inform the final detail.

Air Quality

8.24 The air quality report that is provided with the application illustrates that there would not be any harmful impact in air quality terms.

Ecology and Biodiversity

8.25 The submitted ecology and BNG reports demonstrated that over 10% biodiversity net gain can be provided. It also demonstrates that there would not be any harmful impact upon protected species provided that the methods detailed in the Ecology Statement are followed.

8.26 In summary the proposals comply with the relevant plan policies and there are no planning reasons why the application should not be supported.

9 CONCLUSION

9.1 Paragraph 161 of the NPPF says that the planning system should support the transition to net zero by 2050. Exeter have already committed as part of their overall carbon strategy to reduce carbon emission by 2030, and this sets an ambitious target. This proposal will substantially support this transition and bring with it substantial benefits not just for the reduction in carbon emissions but the significant investment for the city.

9.2 It will be an exemplar in carbon reduction, which will also provide a 20% biodiversity net gain, which is above the threshold set by policy. The scheme was recognised by the Design Review Panel as a fantastic project to be celebrated which evidenced the need for a scheme that would support the City's proactive approach to a net zero future.

9.3 The application has undergone considerable public consultation and has been supported by a whole suite of information which illustrate that whilst the site is subject to constraints, it is compliant with both local and national planning policy and that there are no technical or policy reasons why the application cannot be supported.