Sustainability Strategy Statement for the Fiddlers Ferry Development Framework

Dated: 02/05/2024

Introduction

1. The redevelopment of Fiddlers Ferry Power Station presents the opportunity to regenerate the former power station site, a major brownfield site, in a way which is fully integrated with the mix of sustainable and complementary new land uses. The new high quality and sustainable industrial and logistics uses will be adjacent to existing industrial premises in the near surroundings. On land to the east there is opportunity to provide a mix of highly efficient new homes within a new parkland setting served by a local centre.

2. The Development Framework will maximise the benefits of reusing brownfield land to deliver homes, jobs and new social infrastructure including primary school, space for a satellite GP surgery, parkland open space, recreational facilities, and local centre all within close proximity. It provides an opportunity for a development which can be designed to encourage walking and cycling and maximise more sustainable travel.

Legislation, Policy, and Guidance

The Climate Change Act 2008

3. The Climate Change Act 2008 sets a legally binding target for the UK to reduce its CO2 emissions, was updated in 2019 to amend the target to reduce emissions to net zero by 2050. It also set up a framework for the UK to achieve its long-term goals of reducing greenhouse gases and develop a climate change adaption programme.

National Planning Policy Framework (NPPF) (2023)

4. The Framework recognises the key role planning has to mitigating climate change and supporting the transition to a low carbon economy.

Planning Practice Guidance

5. The Climate Change section provides guidance for local authorities in key climate change considerations.

UK Climate Change Risk

6. UK Climate Change Risk sets out potential risks from climate change across a range of sectors, including business, industry, built environment, and infrastructure.

Future Building Standards

7. New non-residential development should achieve an average 27% CO2 improvement on current Part L 2013 standard.

Net Zero Strategy: Build Back Greener Policy Paper

8. This strategy sets out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target by 2050, this includes policies and proposals to reduce emissions.

The Warrington Local Plan 2021/22-2038/39

9. Policy MD3 (Fiddlers Ferry) - sets out the requirements for the redevelopment of the Fiddlers Ferry site. In particular, in confirms that development within the allocation site should be designed to mitigate the impacts of climate change; be as energy efficient as possible and seek to meet a proportion of its energy needs from renewable or low carbon sources, in accordance with Policy ENV7.

10. Policy ENV7 Renewable and Low Carbon Energy Development – sets out that proposals for new development for housing, employment or other uses will be required to minimise carbon emissions. It confirms that strategic housing and employment allocations should maximise opportunities for the use of decentralised energy systems that would use or generate renewable or other forms of low carbon energy. In these locations, all development will be required to establish, or connect to an existing, decentralised energy network unless this is shown not to be feasible or viable, in which case development will be required to:

    - Make provision to enable future connectively in terms of site layout, heating design and site-wide infrastructure design; and
    - Ensure that at least 10% of their energy needs can be met from renewable and/or other low carbon energy source(s).

11. Policy DC6 (Quality of Place) sets out a series of requirements relevant to energy and climate change, including:
    - Where practical, use low embodied energy materials, including materials that are sourced locally or involve the appropriate reuse of existing resources through the conversion of existing buildings or reuse demolished structures.
    - Encourage the introduction of environmental design principles and climate change adaptation features in the orientation of buildings and spaces and other detailed design.
    - Reduce energy and water use through appropriate design.

Warrington's Climate Emergency

12. WBC declared a climate emergency in June 2019 and pledged to become carbon neutral by 2030.

13. The council developed a Green Energy Strategy which sets out progress made towards the carbon neutral target, and future opportunities to create a greener future. Key targets include:
    - Improving air quality across the borough.
    - Combating fuel poverty across Warrington.
    - Reducing greenhouse gas emissions in the town.
    - Becoming an energy self-sufficient council, by achieving security of energy supply.
    - Promoting economic regeneration, including creating jobs and growth, by
    - Warrington becoming a centre of excellence in the green agenda.
    - Achieving sustainability in everything done as a council, and in all the services provided.
    - Generating income to fund future green investments.

14. Warrington published a Climate Emergency Action Plan (CEAP) in May 2023 which outlines the actions intended to meet the following goals:
    - Reduce greenhouse emissions from council activities to net-zero by 2030.
    - Adapt council services so they are more resilient to the effects of a changing climate.
    - Use their roles and influences to support the borough as a whole to cut greenhouse pollution, adapt to climate change, and help nature recover.

15. Whilst the majority of actions set out in the plan are related to the council's activities and procedures, the following are related to development in Warrington and the planning process:
    - Ensure new development promotes sustainable and active travel.
    - Promote net zero and climate ready approaches for new developments.
    - Explore the feasibility of local solar farms and other renewable opportunities, including group buying schemes.
    - Ensure flood risk is considered in all stages of the planning process.
    - Ensure new developments adopt SUDS in line with new government legislation.
    - Promote use of green infrastructure to achieve biodiversity net gain on development sites.
    - Embed adaptation principles within emerging Warrington design guide SPD.

16. Further information is set out in The Warrington Design Guide (draft for external consultation December 2023) which is ambitious in its approach to climate resilience and calls for every development to play its part in responding to the climate emergency. Design Codes for the Employment and Residential Phases of development will be prepared and once agreed with WBC will sit alongside the Development Framework to guide future development proposals.

17. Each planning application relating to redevelopment of the site will be supported by a phase specific Energy & Sustainability Statement, in accordance with WBC's validation checklist. This will confirm the energy strategy for each phase of development and include an appraisal of the proposal against the established policy context.

General Approach

18. Peel is committed to sustainable development and any future planning applications for employment space or housing will be accompanied by an Energy and Sustainability Statement. This will demonstrate the range of measures incorporated into each phase of the proposed development to reduce energy consumption, carbon emissions, adapt to climate change and ensure high levels of sustainability, energy and climate change performance in accordance with national and local policy, including Policy ENV7, DC6 and MD3 of the Warrington Local Plan.

Land Use and Ecology including Biodiversity Net Gain

19. The proposed land uses, locations and their compatibility will encourage a self-sustaining neighbourhood where the need to travel, and travel by car, is significantly reduced. This will help reduce traffic that will end up by having wider environmental and social benefits e.g. less disturbance, noise and air quality. The proposed development includes a mix of complimentary uses comprising of places to work, community infrastructure, recreation opportunities and homes. It will help make urban spaces more secure and diverse by encouraging people's interactions, and concentrations.

20. The urban structure principles adopted will further contribute to the sustainability of employment development by creating a connected and permeable grid structure that will help to maximise sustainable movement patterns by supporting public transport accessibility and promoting active travel through legible and direct footpaths and cycle paths (to be complemented by cycle storage and cyclist facilities such as showers and changing rooms in employment buildings).

21. The Habitat and Landscape Strategy will address the site constraints and opportunities including achieving a minimum 10% BNG on each phase in accordance with the allocation wide Biodiversity Net Gain Strategy, improving accessibility through well designed attractive new places, and integrating the development with the surrounding area. The landscape strategy will set an overarching landscape strategy including buffer planting, screening and a network of well connected open spaces for employees and residents.

22. The BNG strategy aims to secure the delivery of a minimum of 10% Biodiversity Net Gain across the entire FF Development Site, primarily focusing on on-site mitigation within each phase centred on the Fiddles ferry Nature Reserve, eastern and southern boundary corridors and Vyrnwy Aqueduct corridor. In addition, the restoration of the ash lagoons will also be prioritised as to contribute to BNG in accordance with the ongoing ash extraction. In the short term, priority can be given to land outside ash reserves or operational ash lagoons.

23. The development presents the opportunity to enhance existing ecological assets within the existing nature reserve and green infrastructure assets adjacent to and within the allocation site.

Low Carbon Travel

24. A comprehensive Highways Technical Briefing Note has been prepared to support the wider Fiddlers Ferry site and is appended to the Development Framework. This Note provides highways and transport information including consideration of access by active and sustainable modes of transport.

25. The Transport Strategy confirms that the proposed development will include a series of active travel networks throughout the site including multi-user routes and trails for pedestrians and cyclists often within green corridors, with segregated cycle and pedestrian routes along key routes. This will expand and connect to the wider surrounding networks. These links include:

- A continuous 2m wide footway and 3.2m wide cycleway will be provided from the A562 Widnes Road, along the spine road to the Phase 1 Employment Site;
- North-west multi-user route a 3m wide shared route (suitable for pedestrians, cyclists and potentially equestrians) with aa minimum verges of 2.5m is proposed to access the development prior to occupation of employment phase 1;
- Safeguarding of a walking and cycling corridor to the existing PRoW via Johnsons Lane is proposed as part of the phase 1 employment;
- Shared footway/cycleway towards Bennett's Lane in the west to facilitate access to FF Employment Phase 1. This comprises a 2.5m wide shared footway/cycleway, separated from the carriageway by a 0.5m wide verge, together with a staggered Toucan crossing across Widnes Road near Bennett's Lane. A minimum 2.5 (maximum 3.5m) wide shared

footway/cycleway would continue to Weates Close, subject to obtaining relevant permissions from HBC.

- Shared pedestrian and cycle facilities along Widnes Road towards the Farnworth Road roundabout in the east. This comprises a minimum 2.5 (maximum 3.5m) wide shared footway/cycleway, separated from the carriageway by a 0.5m wide verge where feasible.
- Land to be reserved along the Widnes Road site frontage between the North West Link and the Central Vehicular Access for segregated pedestrian and cycle facilities. Alternatively, a commodious route for pedestrians and cyclists to be provided through Employment Phase 2.
- There is an existing track to the east of the FFPS Site that connects with a PRoW that leads to Station Road in Penketh. It is envisaged that improvements would be made to this track and PRoW for pedestrians and cyclists to provide enhanced connectivity and an alternative route to the east, subject to feasibility assessments. This section of route also provides access to the Trans Pennine Trail (TPT) (National Cycle Network Route 62) via existing level crossings, and onward connections to Hall Nook in Penketh.
- An additional connection to the south of the FFPS Site, via the existing bridge, is envisaged as part of the residential phase(s) of development, subject to subject to structural condition and operational requirements associated with ash extraction.

26. In order to serve the employment element of the Fiddlers Ferry Allocation site it is envisioned that the following will be provided:

- Diversion of bus service 110 or 32 into the FF Allocation Site to serve the FF Employment Phase 1 development. Buses will route along the primary access (spine road), along the FF Employment Phase 1 estate road, and then return to Widnes Road via the secondary access;
- Provision of a bus stop with shelter on the FF Employment Phase 1 estate road; and
- Bus service enhancements comprising extended operating times to cover an appropriate start time from Warrington bus interchange, additional early services on Sundays and Public Holidays, and extended operating times on Saturday/Sunday services.
- A Mobility hub could be located within the employment site or in the vicinity of the local centre. This hub would offer the following types of facility:
    - Hire/pool bikes;
    - Cycle maintenance workshop;
    - Drop-off/pick-up point;
    - Parcel hub;
    - Taxi rank;
    - Bus stop;
    - Parking;
    - EV chargers; and
    - Car club vehicles.

27. As the residential development comes forward, it is envisaged that the public bus service will permeate through the employment and residential elements of the site. Accordingly, the Development Framework has been developed to accommodate bus routing throughout the FFPS Site to ensure future accessibility by public transport. The bus routing plan in the Development Framework shows how bus routing is envisaged to develop as subsequent employment and

residential phases come forward. The buses would utilise a combination of primary and secondary vehicle route networks through the site.

28. Future phases of development will also bring a mix of land uses to the FFPS Site, that will offer greater potential to reduce the need to travel outside of the FFPS Site. For example, a mix of employment and residential uses, together with a local centre with amenities, will maximise the potential for active and sustainable travel within the FFPS Site and reduce off-site vehicle movements.

Employment Development

29. Employment development will incorporate a strategy for energy efficient, low carbon buildings through more sustainable design, reducing a buildings' primary energy demand through energy efficient fabric and services, the buildings. There is a commitment to target Exemplar BREAAM, but achieving Very Good as a minimum for all employment development to reduce energy needs, reduce waste, mitigate against climate change, and reduce greenhouse gas (GHG) emissions.

30. These measures are:
    - Passive design solutions through building orientation and layout.
    - Meeting Part L 2021 as a minimum, aiming to exceed the building regulations as part of the BREEAM strategy, by applying the 'fabric first' approach, reducing u-values and air permeability as much as possible to ensure an optimum fabric efficiency and reduced energy demand.
    - An all-electric building services strategy which will benefit from gradual decarbonisation of the national grid including LED lighting and PIR (passive infrared) control.
    - Incorporation of low and zero carbon energy generation on site in the form of air source heat pumps (ASHPs) and solar photovoltaic (PV) to meet at least 10% regulated energy demand in line with Policy QE1 of the adopted Local Plan, and ENV7 of the emerging Local Plan.
    - Roof spaces will be prioritised for the provision of renewable energy generation, including Solar PV Panels, rooflights to provide natural daylight to the buildings below and opportunities maximised to incorporate Green Roofs.
    - Quantify the embodied carbon of the proposed development by undertaking a Life Cycle Assessment (LCA) and reducing emissions where possible by implementing material efficiency measures and specifying and procuring natural, lower carbon materials.
    - Maximise sustainable transport, exploring options to increase public transport accessibility to the site and active travel by providing safe cycle and walkways, cycle storage, and cyclist facilities such as showers and changing rooms in employment buildings. The development will include cycle paths throughout the site and secure cycling parking in line with Policy INF1 in the emerging local plan.
    - Development in a sustainable location designed to encourage and facilitate walking, within cycling distance to major settlements and train stations and public transport strategy to maximise trips by bus rather than car.
    - Adaptation to Climate Change by reducing overheating by implementing the cooling hierarchy.

- Target a 40% reduction in water consumption compared with the baseline set by the BRE, by installing water saving sanitaryware.
- Development within an area of low flood risk and incorporation of SuDS including attenuation basins and permeable paving to reduce surface water run-off with a 45% allowance for climate change, as further explained within the supporting Drainage Strategy.
- Maximise green infrastructure to achieve at least a 10% net gain in biodiversity from the baseline and align the design with other sustainability considerations such as drainage, health and wellbeing, and overheating.

BREEAM Compliant

31. There is a commitment to target Exemplar BREAAM achieving Very Good as a minimum for all employment development prioritising credits within the Energy, Materials and Waste sections to reduce carbon.

32. As part of the BREEAM strategy, a Life Cycle Assessment (LCA) of the building's superstructure, sub structure, core services, and hard landscaping will be undertaken, with an aim to quantify and reduce embodied carbon emissions where possible.

33. LCA is an evaluation of the environmental effects of a product, service or process over its entire life cycle. The assessment considers all the steps that lead from raw material to manufactured product, including extraction of the materials, energy consumption, manufacture, transportation, use, recycling, and final disposal or end of life.

34. The following measures will be considered at application stage to reduce the embodied carbon associated with the development:
    - Material efficiency including avoidance of overengineering of the steel frame, foundations, and core services.
    - Reuse of material from the demolition, including the crushing of concrete for use as subbase and pipe bedding.
    - Procuring materials, such as steel, with recycled content.
    - Specifying and procuring concrete in line with the ICE Low Carbon Concrete Road Map.
    - Specification of low-temperature and/or recycled tarmac.
    - Specifying products with a low global warming potential (GWP) refrigerant.
    - Procuring materials locally, to reduce emissions associated with transport.
    - Using lower carbon alternatives to white diesel, such as green diesel or hydrotreated vegetable oil (HVO).

Water Efficiency

35. Potable water is an increasingly important natural resource and with the majority of the UK classed as being in an area of moderate or severe water stress the conservation of water is becoming a more significant sustainability metric. As part of the BREEAM assessment and in order to achieve a Very Good rating the development aims to maximise water efficiency through targeting the following credits:

    - 40% reduction in water consumption through reducing flow rates and flush volumes of sanitaryware.

- Water monitoring throughout the buildings.
- Water leak detection and prevention.
- Reducing unregulated water usage through specification of climate resilient planting which does not require irrigation.

Residential Development

36. The development will provide a mix of highly efficient new homes within an attractive setting with access to employment, recreation, education, social and retail uses within the development.

37. All dwellings will meet the Future Homes Standard benefiting from innovative, efficient and low carbon technologies including air source heat pumps, solar PV arrays, battery storage and EV charging provision. This standard requires a minimum 75% CO2 emissions performance beyond Building Regulations Part L 2013 which will be achieved via a 'fabric first' approach, all electric energy strategy and innovative low carbon technologies including air source heat pumps, solar PV and battery storage.

Energy Hierarchy

38. In addition to policy and legislation requirements, where there has been identified opportunity at application stage, higher sustainability standards will be targeted. All new homes will seek opportunities where appropriate to be designed to reduce their energy demand whilst meeting remaining demand in the most environmentally friendly way in order to reduce their carbon footprint. The proposed strategy has been developed in accordance with best practice and comprises three stages of priority knows as the 'fabric first' approach as follows:

    1. Be Lean – reduce energy demand from the outset through enhanced building fabric design and construction beyond the minimum standards required under Building Regulations 2021 Part L1A. This could include simple measures such as sealing services (e.g. water pipes and cables), using proprietary seals and collars, ensuring blockwork is sealed and parging layer/plaster finish applied to external walls before erecting studwork for internal partitions will further contribute to good levels of air tightness.

    2. Be Clean – all residential development will comply with Part L 2021 compliance standards and explore a range of high efficiency building systems beyond Part L 2021 covering clean mechanical and electrical systems, heating, ventilation, hot water, lighting and controls. These include:
        - 100% low energy lighting;
        - Low carbon heating via air source heat pumps;
        - 'Showersave' wastewater heat recover systems;
        - Advanced controls including heating; and
        - High efficiency ventilation. services and controls.

    3. Be Green – incorporate renewable and/or low carbon energy generation technologies to achieve further carbon reductions and/or meet any associated planning policies.

39. Further to the above, additional design measures contributing to low carbon dwellings will be provided these will include:
    - passive design solutions through dwelling orientation and layout;
    - energy efficiency measures through the design of services and improved fabric performance;
    - calculation of predicted design energy consumption rates and associated CO_2 emissions in comparison with 'baseline' Part L standards including both 'regulated' and 'un-regulated' energy use; and
    - assessing the viability of low and zero carbon energy sources.
    - ensuring natural capital and 10% biodiversity net gain is evaluated and taken into account at the earliest practical stage in new projects;
    - incorporating green infrastructure into new developments and managing existing green assets to ensure long- term quality; and
    - incorporating sustainable drainage (SuDS) principles within new developments where appropriate.

Conclusion

40. The Development Framework sets out a range of positive design measures that have been considered and identified for how future phased development will maximise sustainable development.

41. This statement confirms how the Development Framework has considered sustainability and sets out the requirements for each phased planning application including:

    - Meeting policy requirements at all levels to maximise sustainability and mitigate the impacts of climate change;
    - Beneficial reuse of brownfield land to reduce the need for undeveloped sites elsewhere;
    - Using environmental design principles and design codes to respond to the climate emergency, promote net zero and be ready for climate change;
    - Target Exemplar BREAAM achieving Very Good as a minimum using low embodied energy materials, reducing waste and the need for resources such as energy and water;
    - Maximise opportunities for the use of decentralised energy systems that would use or generate renewable or other forms of low carbon energy;
    - Prioritising employment roof spaces for the provision of renewable energy generation, including Solar PV Panels;
    - A minimum of 10% BNG will be achieved at each phase of the development;
    - The development will enhance the existing nature reserve and green infrastructure assets adjacent to and within the allocation site;
    - Promotes active travel through the inclusion of a range of multi-user routes throughout the site, increased bus routes for enhanced public transport and the improvement/creation of links from the site to the surrounding area;
    - The commitment to meet the Future Homes Standards within the residential development to deliver low carbon and energy efficient homes.

42. These measures demonstrate that the development will maximise sustainability in accordance with policy at all levels and new land uses in the most environmentally friendly way in order to

maximise sustainability and net zero benefits, reduce the developments carbon footprint and be resilient to climate change.