

Planning application no.	20/00305/FUL	
Site	Bowmans Harbour, Planetary Road	
Proposal	Erection of a solar farm comprising of 11.5ha of photo-voltaic panels, associated infrastructure, access road and battery storage and installation of boundary fencing and closed-circuit television security cameras	
Ward	Wednesfield South;	
Applicant	City of Wolverhampton Council	
Cabinet member with lead responsibility	Deputy Leader: Inclusive City Economy	
Accountable Director	Richard Lawrence, Director of Regeneration	
Originating service	Planning	
Accountable employee	Phillip Walker	Senior Planning Officer
	Tel	07970136918
	Email	phillip.walker@wolverhampton.gov.uk

1.0 Summary recommendation

- 1.1 Delegated authority to grant planning application 20/00305/FUL subject to conditions and no overriding objections from outstanding consultees.

2.0 Application site

- 2.1 The application site is a landscaped waste repository, known as Bowmans Harbour. It is located approximately one mile to the north-east of the City Centre and approximately 0.5 mile south of Wednesfield Village Centre.
- 2.2 The waste repository site is an irregular shape and has an area of approximately 15 hectares (ha). It is bounded by Planetary Road to the east, Wednesfield Way to the north and a railway line to the west and south. The site slopes significantly from the north to the south.
- 2.3 Immediately adjoining the north-east of the site is a swimming and fitness centre, and associated customer car park, and industrial development is to the south-east. On the northern side of Planetary Road are industrial and commercial premises. On the opposite side of Wednesfield Way is residential development. There is also residential

development, comprising two storey housing, to the south of the railway line, along Helming Drive, Sigmund Close, Friesland Drive and Deans Road.

- 2.4 The site includes substantial landscaped embankments and a pond. A band of Millennium Forest trees and planting along the eastern and southern site boundaries. A private footpath runs north to south through the centre of the site. There is currently no access into the site for the public and the site perimeter is enclosed by mesh fencing and landscaped planting.
- 2.5 The development site has been allocated in the development plan as open space and a proposed “greenway” route is identified running across the site roughly north-south from Wednesfield Way at its junction with New Cross Avenue and Planetary Road towards another proposed greenway route running alongside the railway line and eventually linking towards Moseley Village, further to the south-east. The development plan is clear that such greenways will be protected to allow for the provision of a network of pleasant routes for pedestrians and cyclists.
- 2.6 A public right of way (Ref. FP121) runs along the south-western boundary of the site connecting Deans Road and the Wryley and Essington canal towpath with the railway overbridge towards the south-east of the site.
- 2.7 Access into the site for vehicles and pedestrians is from Strawberry Lane, which is to the south-east of the site.

3.0 Application details

- 3.1 This application proposal is to erect a ground mounted photovoltaic (PV) solar panel farm with associated infrastructure, covering 11.5ha of the Bowman’s Harbour site. The solar farm would have an overall output of 6.9MWp of renewable energy per annum.
- 3.2 The panels would be installed in regular lines from east to west across the site, with two main banks of panels at the east and west of the site. Each bank of panels would be orientated southwards and accessed by a pathway (4.5m wide) running north to south, linking to a further access road running the length of the site at the southern extent.
- 3.3 The proposed panels would be mounted on a metal framework at approximately 20-30° to the horizontal. This metal framework would be set upon a non-penetrative ballast of either solid concrete ‘sleepers’ or filled cages with crushed stone, to provide stability able to withstand environmental pressures such as wind or snow while removing the need for deep foundations. At the end of each line of PV tables, a small electric collector unit would be installed. The overall height of the PV installation would be limited to 3.5m above ground level.
- 3.4 The proposed panels would provide energy for New Cross Hospital, supplying them with the renewable energy generated at the site, enabled by plant and equipment to facilitate this transfer. This requires equipment housing units and two substations across the site

which would connect the panels by cables directly to the Hospital via a private wire network.

- 3.5 The existing access from Strawberry Lane would be utilised, and a new road constructed into the site. The road would be a 4.5m wide cambered surface, formed of a compacted external face, with graded gravel and a geotextile membrane. The proposed road would enable maintenance, inspection and monitoring of the solar farm. The proposed roadway would not be located in areas where there is an engineered clay cap or subsurface leachate and/or surface water management infrastructure.
- 3.6 The majority of the site, including the PV panels, small equipment housing units and two substations, would be set within a secure compound, enclosed by a two-metre green wire mesh fence.
- 3.7 CCTV cameras are proposed to be installed at regular intervals around the perimeter of the enclosure. These cameras would be inward facing, each mounted on a four-metre dark green pole, with thermal imaging capability.
- 3.8 The planning application seeks permission to install the panels for a 25 year period and as such the development proposal is temporary in nature. At the end of this period, the panels and all associated equipment would be decommissioned and removed to enable the site to be reinstated for possible use as a publicly accessible open space.

4.0 Planning History

- 4.1 09/00242/DWF. Installation of a drainage system including the creation of a new pond. Granted 16.09.2009.
- 4.2 BC/0250. Importation of subsoil and topsoil. Granted 31.08.1995.
- 4.3 BC/0236. Variation of conditions 3 and 19 of BC/0213. Granted 29.06.1995.
- 4.4 BC/0195. Repository modification to accommodate additional waste encountered on site, amendment to BCX/0128. Granted 12.05.1994
- 4.5 BC/0213. Revision to and restoration of contours of approved waste repository to accept material from adjacent and nearby reclamation sites and utilisation of existing former railway corridor for transport purposes. Granted 19.11.1994.
- 4.6 BC/0128. Reclamation and stabilisation of land including recovery of shallow coal reserves by means of opencast methods. Granted 05.06.1992.

5.0 Relevant policy documents

- 5.1 National Planning Policy Framework (NPPF)
- 5.2 Planning Practice Guidance – renewable and low carbon energy
- 5.3 The Development Plan (UDP)
Wolverhampton Unitary Development Plan (UDP)

Black Country Core Strategy (BCCS)
City of Wolverhampton Council Open Space Strategy & Action Plan

6.0 Publicity

6.1 One verbal objection has been received. Comments as follows:

- Concerned about possible adverse impact on nature conservation and wildlife.

7.0 Consultees

7.1 Environmental Health – No objection subject to conditions requiring continued access to the existing 65 wellhead chambers at the site, installation of ground mounted solar panels only (to minimise risk of damage to underground gas collection pipework), construction management and site decommissioning plans, external lighting, noise attenuation for external plant and machinery and hours of construction.

7.2 Transportation – No objection subject to a condition requiring construction management and decommissioning method plan and statement.

7.3 Environment Agency – No objection subject to a condition requiring continued access to the existing landfill monitoring infrastructure.

7.4 Network Rail – Make design concerns in respect of the reflectivity of the panels and request that any proposed external lighting is directed away from the railway line.

7.5 Health and Safety Executive Planning Advice, Coal Authority and Severn Trent Water Limited – No objections.

7.6 Landscape and Ecology (CWC), Western Power Distribution, National Grid (Gas) – comments awaited.

8.0 Legal implications

8.1 There are no legal implications arising from this report KR/02092021/C.

9.0 Appraisal

9.1 The main issues in this case are:

- The principle of the development proposal
- Landscape and visual impact
- Cumulative visual and landscape impacts
- Ecological impact
- Glint and Glare considerations
- Access
- Flooding and Drainage
- Environmental health considerations

Principle of the development

- 9.2 The application site is identified as an Opportunity Development Site under saved UDP policy R9 “New Open Space, Sport and Recreation Facilities”. This policy states that new open spaces, sport and recreation facilities should be designed to be physically accessible for all users. The site is currently not publicly accessible, because of health and safety concerns which are linked to the waste repository use of the site. It is unlikely that public access will be allowed within the next 25 years, which would form the life term of the development proposal. As such the principle of using this site as a solar farm for a temporary 25 year period of time, after which it could be decommissioned and the land restored, is acceptable and the proposals would not conflict with UDP policy R9.
- 9.3 NPPF paragraph 152 states that the planning system should support the transition to a low carbon future in a changing climate and support renewable and low carbon energy and associated infrastructure. The proposed development would make use of a former brownfield site and generate renewable energy and support the transition of New Cross Hospital towards a low carbon and renewable economy and energy supply. The proposal would thereby provide significant environmental benefits through the generation of renewable energy, and the principle of the development in terms of delivering a renewable and low carbon energy source is supported provided there are no unacceptable environmental or amenity impacts associated with the proposals. There is principle support in terms of delivering renewable and low carbon energy infrastructure, without having to demonstrate an overarching need and as such, the proposal accords with the NPPF.

Landscape and Visual impact

- 9.4 A Landscape and Visual Impact Assessment (LVIA) was submitted in support of the application with the study area for this application including the wider context of the proposed development and its overall extent, which has been informed by both the landscape character area and the Zone of Theoretical Visibility of the development proposals (ZTV).
- 9.5 At the regional level Natural England [NE] has published National Character Areas [NCA] for England, and this site falls into NCA profile 67 Cannock Chase and Cank Wood. The The Bowmans Harbour site is located in a predominantly urban area so many of the key characteristics identified in the NCA are not applicable and this is acknowledged by the LVIA.
- 9.6 Because the development site is located in an urban area, is inaccessible, and is in relatively poor [landscape] condition the site has been assessed as being capable of accommodating the proposed form of development. The development would also provide the opportunity to enhance and significantly improve the management of retained woodlands and trees on the site boundaries, including the Millennium Forest and proposed Greenway.
- 9.7 The setting of the application site itself is potentially sensitive to change given its status as a ‘natural area’ potentially suitable for open space, sport and recreational development. However, the wider townscape that surrounds the site, which is heavily

influenced by commercial, industrial and residential development, coupled with the fact that the site is intrinsically unsafe due to historical uses greatly reduces the sites sensitivity to this form of development.

- 9.8 A substantial landscape mitigation strategy is proposed in the submitted Landscape Strategy Plan, and the details of which are stated in the LVIA. The mitigation would include additional planting, enhancement and improved management of mature woodland and tree planting, which are sited along the site boundaries, to mitigate for the loss of trees and planting within the central areas of the site. The mitigation proposals include for approximately 6,630m² of new woodland planting, both within and outside the site. There would also be new native hedgerows along the southern and eastern boundaries. A wildflower meadow will be planted beneath the solar array areas. Despite these mitigation proposals the replacement of an area of open space, albeit inaccessible to the public, with a solar array would have an overall residual effect on the local landscape/townscape character of moderate adverse, within the parameters of the LVIA assessment [over a period of 15-Years].
- 9.9 In the longer term, beyond the lifetime of the solar array, the LVIA found that the site would be in a much improved condition, when compared with the current situation. The site would benefit from well-managed, mature mix of woodland habitats on its periphery with an established and diverse mix of meadow and scrubland within its core. Despite initial adverse effects, the development of this site with a sympathetic and temporary use such as that proposed, there is potential to provide endearing landscape character and biodiversity benefits. To that end, once the array has been dismantled and removed the effects on landscape and townscape character would be neutral to slightly beneficial due to landscape amenity and biodiversity benefits. In this respect, the proposed development accords with Planning Practice Guidance (PPG) policy direction as referenced in paragraph 013 (Reference ID: 5-013-20150327 Revision date: 27 03 2015).
- 9.10 Paragraph 013 (Reference ID: 5-013-20150327 Revision date: 27 03 2015) of the PPG states that the visual impact of a well-planned and well screened solar farm can be properly addressed within the landscape if planned sensitively. It states that whilst it is necessary to assess cumulative landscape and visual impact of large-scale solar farms, in the case of ground mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.
- 9.11 The policy direction therefore seeks to ensure that development is appropriate in design taking into account local context and character and having regard to landscape character assessments where appropriate. It seeks to protect and enhance the diversity, high-quality and local character of the natural environment and to ensure no adverse impacts occur upon visual amenity.
- 9.12 From the LVIA it is noted that the extent of visibility for this proposed development is greatly limited by the local topography and the extent of vegetation [trees and scrub] on the site boundaries, along the principal transport routes and areas of public open space in the wider study area. As a result, the site is well screened, and open views of, and into the site are limited to a few locations in close proximity to the site and from taller residential buildings particularly from north and west of the site. The vast majority of surrounding residents and occupants and users of surrounding businesses, services,

cycleways, footways, roads and railway, will experience no change in their view as a result of the development.

- 9.13 Overall, the LVIA finds that the residual significance of effect of the development on the visual amenity within the immediate and wider study area [within 1.0km and 2.5km] would be neutral. The proposed development is in accordance with the PPG, the NPPF and design policies of the adopted development plan given that it would not adversely affect the amenity of the surrounding area.

Cumulative landscape and visual impacts

- 9.14 PPG Paragraph 022 (Reference ID: 5-022-20140306 Revision Date 06 03 2014) defines cumulative landscape impacts as the effects of a proposed development on the fabric, character and quality of the landscape. Essentially, it is concerned with the degree to which a proposed renewable energy development will become a significant or defining characteristic of the landscape.
- 9.15 In respect of the proposed development, it is considered that the solar panel array by virtue of its location within a contained landscaped waste repository and given the topography of the land which is highest to the north and gradually falls to the south-east together with perimeter trees and scrub planting, would provide a substantial screening of the proposed development from the surrounding landscape and visual vantage points which are limited. Collectively these defining aspects of the existing landscape would effectively mitigate the cumulative impacts of the development and if the defining aspect of cumulative landscape impact is whether or not the development takes on a significant or defining characteristic of the landscape, in this case it is considered that the proposed development would neither be significant nor become a defining characteristic of the landscape in which it is located.
- 9.16 Paragraph 022 goes on to define cumulative visual impacts as the degree to which a proposed renewable energy development would become a feature in particular views or sequences of views and the impact this has upon the individuals experiencing those views. It goes on to state that cumulative visual impacts may arise where two or more of the same type of renewable energy development, in this case solar farms, would be visible from the same vantage point or would be visible shortly after each other along the same journey.
- 9.17 Within this context there are no other solar farm developments within the vicinity of the development proposal. There is nothing to indicate that the landscape character of the area is unduly sensitive to change and cannot accommodate this development proposal. It is considered that neither the magnitude nor scale or size of the predicted change would result in any significant cumulative impacts. As such, the proposals accord with the PPG.
- 9.18 The proposed development involves reversible technology and consequently any effects of the development in terms of the environment or with regards to the sites allocation as a development opportunity for open space, sport and recreation, would be both temporary (albeit having a duration of 25 years) and reversible.
- 9.19 The long-term aim is the reinstatement of the site such that it could possibly be used by the public for sport, recreation and as an open space in conjunction with the solar energy production. Subject to good environmental practice and mitigation measures there would

be no cumulative impact from this development. The proposed development would not result in any significant adverse environmental or amenity impacts on the surrounding area, subject to planning controls, and as such accords with the PPG and the NPPF.

Ecological impact

- 9.20 The planning application was supported by a Preliminary Ecological Appraisal (November 2020), an Ecological Survey Report (2020) and a Badger Survey Report (2020). These reports remain valid and can be used to inform the assessment of this application. An ecological management plan (2021) has also been submitted as well as a landscape strategy plan and these confirm the potential impacts and appropriate mitigation required based on the finalised solar farm scheme
- 9.21 The ecological surveys, management plan and landscape strategy plan indicate that the site can accommodate the development proposal without causing unacceptable harm to biodiversity and wildlife, subject to good environmental practice, ecological mitigation measure, management and maintenance. Planning conditions would seek to secure the implementation of the proposed ecological recommendations as required by the surveys and ecological management plan and landscape strategy plan.
- 9.22 The applicant has carried out a Biodiversity Net Gain calculation using the new DEFRA Metric 3.0 which confirms an overall net gain is achievable. The biodiversity net gain calculated is stated at 1.14% subject to the full implementation of the ecological mitigation, management and maintenance proposals. This is acceptable and in accordance with the development plan.

Glint and Glare considerations

- 9.23 Glint and glare may be produced as a result of the proposed development resulting in visual issues and viewer distraction. A glint and glare study was undertaken in May 2020 by Pager Power Urban and Renewables, which indicated that no impact would be felt by any nearby receptors as a result of the proposed development. Solar reflections were geometrically possible from most of the assessed sites, but modelling suggests that suitable screening is in place to minimise the effect on nearby residential developments, roads or the railway line. Mitigation was not deemed to be necessary.
- 9.24 The limited height of the proposed solar farm would be in keeping with the scale and height of the surrounding developments. Given the proposed Scheme has utilised the natural topography of the site, which slopes from north to south towards the railway line, and is proposing to maintain the edges of the site for planting to act as a natural buffer zone, it is likely that visual amenity and glare will be limited. Therefore, given the design of the proposed development, there would be no significant impacts during the construction or operation of the proposed solar farm.

Access

- 9.25 The proposed access into and out of the site would be from Strawberry Lane, and City Council Highway Engineers have confirmed that this is acceptable subject to conditioning construction management and decommissioning method statements.

Flooding and Drainage

- 9.26 NPPF paragraph 169 states that major development should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The application site has an existing sustainable drainage and leachate management systems. The proposals therefore comply with paragraph 169 of the NPPF.

Environmental Health considerations

- 9.27 The site is a landscaped waste repository site which has been subject to investigation and capping engineering schemes since its completion. It is owned and managed by the City of Wolverhampton Council, and incorporates:
- An active landfill gas control scheme; and
 - A comprehensive leachate control system
- 9.28 Furthermore, the site incorporates a specifically engineered site wide water management system, comprising of below ground structures, drainage ditches, settlement ponds and a controlled water discharge system.
- 9.29 The repository at Bowmans Harbour is the subject of an existing Environmental Permit issued by the Environment Agency in respect of environmental monitoring.
- 9.30 There is a substantial long term monitoring contract in place due to the detailed nature of the sampling and analysis required to meet the conditions of the Environmental Permit. The monitoring regime, including the design of deep groundwater monitoring boreholes, their location, frequency of sampling and all analytical protocols for both groundwater and leachate have been agreed with the Environment Agency with the sole purpose of protecting controlled waters. These would continue under the proposed solar farm scheme.
- 9.31 The current proposal has been designed to avoid any physical interaction with the landfill site that could affect the current design and operation of the accepted site management plan and permit requirements, or pose a risk to workers on the site. This is demonstrated by the ground-mounted solar pv panels being mounted on a metal framework. This metal framework would be set upon a non-penetrative ballast of either solid concrete 'sleepers' or filled cages with crushed stone, to provide stability able to withstand environmental pressures such as wind or snow while removing the need for deep foundations and limiting environmental impact.
- 9.32 The proposed Scheme is unlikely to have an unacceptable impact on specific gas, leachate and water management systems currently operational on the site.
- 9.33 While the site is an historic landfill site, odour is not presently a matter of concern and this is not likely to be the case in respect of the proposed operation of the site as a PV array.
- 9.34 Noise levels and air quality impacts from construction, the development itself and decommissioning works can be effectively controlled by conditions requiring construction

and decommissioning method statements. All plant and associated equipment would be noise and ventilation attenuated such that there would not be unacceptable harm caused to the existing amenity enjoyed by nearby residential occupiers.

- 9.35 The landscape and visual impact assessment has satisfactorily demonstrated that the proposed development would not have a detrimental impact upon the visual amenity enjoyed by surrounding residential occupiers.

10.0 Conclusion

- 10.1 This development proposal would generate significant levels of renewable energy for use by New Cross Hospital and responds positively to the Government's objectives of tackling the causes of climate change and moving to a low carbon future. It would make an important contribution towards meeting a Wolverhampton wide target of 2041 for the City to reach net carbon zero. Although there would be some adverse impacts in terms of ecology, landscape and visual quality, these can be acceptably mitigated and controlled by conditions, and any harm caused is outweighed by the benefits in respect of renewable energy production and the reversible nature of this development proposal.

11.0 Detail recommendation

- 11.1 Delegated authority to the Director of Regeneration to grant planning application 20/00305/FUL subject to:

1. No overriding objections from outstanding consultees;
2. Any necessary conditions to include:
 - Construction Management Plan
 - Notification to the local planning authority of the date of commencement of works
 - The development to be retained for a period of not more than 25 years from the date of commencement of the development
 - Within six months of the end of the 25 year period the solar panels shall be decommissioned and all related above and below ground structures shall be removed from the site
 - Within 24 years of the date of commencement or six months prior to the decommissioning of the panels, whichever is sooner, a decommissioning method statement is to be submitted to and approved by the local planning authority. The site shall be decommissioned and restored in accordance with the decommissioning method statement
 - If any of the individual groups (arrays) of solar panels cease to export electricity for a period of six months then a scheme for restoration, including proposals for the removal of the solar panel and restoration of the land, shall be submitted to and agreed in writing by the local planning authority.

- Works to stop if any visibly contaminated or odorous material, or structures of any sort are encountered during the development and remediation works to be agreed with the local planning authority and implemented accordingly
- Tree protection
- The local planning authority shall be notified in writing at least 5 working days before soil stripping is due to commence
- Soil handling scheme for the development
- Hours of construction
- Proposed levels of land
- External Lighting
- Implementation of mitigation proposals and recommendations of landscape and visual impact assessment and landscape strategy plan
- Implementation of mitigation proposals and recommendations of ecology surveys and Ecological Management Plan
- Noise attenuation for external plant and machinery
- Retain existing landfill monitoring infrastructure and continue to provide access for the Environment Agency to this infrastructure

