

**FLINTSHIRE COUNTY COUNCIL**

**REPORT TO:** **PLANNING COMMITTEE**

**DATE:** **2<sup>nd</sup> SEPTEMBER 2020**

**REPORT BY:** **CHIEF OFFICER (PLANNING, ENVIRONMENT AND ECONOMY)**

**SUBJECT:** **INSTALLATION AND OPERATION OF A GROUND MOUNTED SOLAR PANELS AND ASSOCIATED INFRASTRUCTURE**

**APPLICATION NUMBER:** **060765**

**APPLICANT:** **FLINTSHIRE COUNTY COUNCIL**

**SITE:** **CRUMPS YARD, DOCK ROAD, CONNAH'S QUAY, CH5 4DS**

**APPLICATION VALID DATE:** **10<sup>TH</sup> DECEMBER 2019**

**LOCAL MEMBERS:** **CLLR A SHOTTON**  
**CLLR B ATTRIDGE**

**TOWN/COMMUNITY COUNCIL:** **CONNAH'S QUAY COMMUNITY COUNCIL**

**REASON FOR COMMITTEE:** **MAJOR APPLICATION**

**SITE VISIT:** **NO**

**1.0 SUMMARY**

- 1.1 The proposal is a full planning application for installation and operation of a ground mounted solar panels and associated infrastructure on land at Crumps Yard, Dock Road, Connah's Quay.
- 1.2 The site extends to approximately 3.2 hectares. The main issues for consideration are:
- The principle of development,
  - Character and appearance of the area,
  - Aerodrome safeguarding,
  - Highways safety, and
  - Flood Risk

- 1.3 This application is recommended for approval subject to receiving confirmation from Network Rail that wish to make no comment on the proposals impact upon the railway network.

**2.0 RECOMMENDATION: TO GRANT PLANNING PERMISSION, SUBJECT TO THE FOLLOWING:-**

1. Commencement of development within 2 years.
2. Carried out in accordance with the submitted details.
3. No generation of electricity hereby permitted shall take place after 40 years from the date on which electricity is first transmitted from the site, nor after electricity ceases to be generated for a continuous period of 6 months; whichever is the earlier.
4. No generation of electricity hereby permitted shall take place unless a monthly record is kept by the site operator of the amount of electricity generated that month; and that record shall be made available for inspection by the local planning authority.
5. When electricity ceases, as per the requirements of any of the circumstances in condition 3, within 12 months all plant/machinery/development to be removed and land restored to its pre-development condition in accordance with a scheme to be submitted to be agreed in writing with the Local Planning Authority prior to such works being undertaken.
6. Prior to commencement, the submission of a construction traffic management plan.
7. No infiltration of surface water drainage into the ground is permitted other than with the consent of the LPA
8. No site clearance within the bird nesting season
9. Prior to commencement, the submission of a Biodiversity Enhancement Plan

**3.0 CONSULTATIONS**

Local Member

Clr Shotton: No Response at the time of writing

Clr Attridge: No Response at the time of writing

Connahs Quay Community Council

Supports the proposed development

Highways Development Control

No objection subject to the submission of a construction management plan prior to commencement.

Public Protection

No Objection

County Ecologist

No objection subject to the submission of a Biodiversity Enhancement Scheme prior to commencement.

Welsh Water/Dwr Cymru

No Objection

Natural Resources Wales:

Recommend planning permission should only be granted the following documents are within the condition identifying approved plans and documents on the decision notice:

Flood Consequences Assessment (FCA) by Hydrogeo (ref: HYG548, Version 3, June 2020).

Airbus

Hawarden Aerodrome Safeguarding has assessed against the safeguarding criteria as required by DfT/ODPM Circular 1 / 2003: Safeguarding of Aerodromes and the Commission Regulation (EU) No 139/2014 and has identified that the proposed development does not conflict with safeguarding criteria.

Network Rail

No Response at the time of writing

National Air Traffic

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS has no safeguarding objection to the proposal.

Clwyd Powys Archaeological Trust

Note the content of the supporting Heritage Impact Assessment and the LVIA. The HIA indicates a negligible impact due to the nature of the solar array development which will be ground mounted rather than requiring below ground supports. The site has also been extensively reclaimed in the past and is now a hardstanding area. The archaeological impacts are therefore negligible and CPAT would have no objection to this development.

Emergency Services

No response at the time of writing

County Tree's Officer

No response at the time of writing

Liverpool John Lennon Airport

No response at the time of writing

County Conservation Officer

Considered the content of the Heritage Impact Assessment and the LVIA, and raise no objection to the proposal.

#### **4.0 PUBLICITY**

- 4.1 A consultation exercise, including a Press Notice, Site Notice's and Neighbour Notifications, was undertaken. Three letters of support were received.

#### **5.0 SITE HISTORY**

- 5.1 The Application Site is brownfield land, however, there are no recent planning applications or permissions associated with the Application Site.

#### **6.0 PLANNING POLICIES**

- 6.1 Flintshire Unitary Development Plan  
Policy STR1 – New Development  
Policy STR7 – Natural Environment  
Policy STR10 – Resources  
Policy GEN1 – General Requirements for Development Control  
Policy GEN3 – Development in the open countryside  
Policy D1 – Design Quality, Location and Layout  
Policy D2 – Design  
Policy D3 – Landscaping  
Policy L1 – Landscape Character  
Policy WB1 – Species Protection  
Policy WB2 – Sites of International Importance  
Policy WB3 – Statutory Sites of National Importance  
Policy WB6 – Enchantment of Nature Conservation Interests  
Policy AC2 – Pedestrian Provision and Public Rights of Way  
Policy AC13 – Access and Traffic Impact  
Policy EWP1 – Sustainable Energy Generation  
Policy EWP5 – Other Forms of Renewable Energy Generation  
Policy EWP11 – Development on or adjacent to Landfill Sites
- 6.2 Flintshire County Council Supplementary Planning Guidance  
SPGN No. 3 Landscaping  
SPGN No. 6 Listed Buildings  
SPGN No. 8 Nature Conservation & Development
- 6.3 National Policy and Technical Advice  
Planning Policy Wales: Edition 10  
Technical Advice Note 5: Nature Conservation & Planning (January 2009)  
Technical Advice Note 8: Renewable Energy (July 2005)  
Technical Advice Note 12: Design (2016)

## **7.0 PLANNING APPRAISAL**

### **7.1 The Site and its Surroundings**

The Application Site is located directly to the South of Dock Road, within the settlement Connah's Quay, as defined by the Flintshire Unitary Development Plan. The Application Site lies within close proximity to the local highway network, with the B5129 road located approximately 85m to the south of the Application Site, and Dock Road running along the northern boundary. In addition, the North Wales Coast Line railway lies along the southern site boundary. There are also a number of recreational routes present within the vicinity of the Application Site, with the Wales Coastal Path and National Cycle Route 5 running adjacent to the River Dee, to the North.

7.2 The Application Site covers approximately 3.2 hectares, with the potential to support circa 1.6MW of solar PV development. The site boundaries comprise a mixture of fencing and earth bunds, which currently do not prevent public access. The Application Site is relatively level and open with gentle slopes towards Dock Road Landfill Site, which lies adjacent to the boundary. There are two areas of concrete hardstanding, one adjacent to the proposed site entrance from Dock Road, and the other is located centrally and comprises a number of long pits infilled with crushed aggregate. There is some scrub and mature trees which accounts for approximately 25% of the site area.

7.3 The surrounding area is characterised by industrial development, with Dock Road Industrial Estate located to the north. The Industrial Estate comprises industrial yards and small light industrial buildings. Further to the north lies the Dee Estuary, and the large Tata Steel works lies on the northern side of the Estuary. A rough grassed area is present east of the southern half of the Application Site, and a small industrial yard is present east of the northern half of the Application Site, beyond these is a sports-field and further rough grassed areas.

### **7.4 The Proposal**

The Proposal which is subject to a full planning application comprises the construction and operation of a 1.6MW solar farm development and the associated infrastructure at Crumps Yard, including:

- 7.5
- Solar PV modules mounted on to arrays with concrete plinths;
  - 2 x inverter/ transformer units;
  - 2 x battery storage containers;
  - Onsite cabling;
  - Fencing and security measures; and

- Substation

- 7.6 An existing hardstanding area lies adjacent to the Application Site entrance, it is proposed that this area of land is utilised for the placement of the inverter/transformer units and the battery storage containers. This area will also be utilised as a temporary construction compound. The construction compound will be populated with solar PV modules and plant as the project nears completion, when less laydown space is required.
- 7.7 The Proposal comprises the installation of solar photovoltaic (PV) modules, fixed to a mounting structure to form arrays. The arrays would be orientated towards the south, running in an east to west direction across the Application Site. The arrays will have a clearance above ground level (agl) of approximately 1.0m and an upper height of no more than 3m agl, angled at 20 degrees to the horizontal
- 7.8 The solar arrays would be fixed to the land with the use of concrete blocks This construction method limits ground disturbance as they do not require piling in to the ground. Earthworks would therefore be limited to cable trenches. 4.5 The installation of the solar PV arrays causes minimal ground disturbance, occupying approximately 5% of the Application Site area. A proportion of the associated infrastructure would be located within the existing hardstanding area, limiting further ground disturbance. The remainder of the land within the Application Site is therefore accessible for vegetation growth and has the potential to be utilised for biodiversity enhancements for the lifespan of the Proposal.
- 7.9 Two inverter/ transformer units are required to control the voltage of the electricity generated across the Proposal, prior to reaching the substation. The solar PV modules would be connected to inverter units to convert the direct current produced by the modules in to alternating current, which is compatible with the local electricity distribution network. These would be located within the hardstanding area, located adjacent to the site access point. 4.7 The inverter/ transformer units would be raised off of the ground by 0.5m with an overall height of 3.4m, length of 12.2m and width of 2.5m.
- 7.10 The substation compound would be positioned to the west of the inverter/ transformer units and the battery storage containers, towards the northern boundary of the Application Site. The substation would measure 10.48m in length, 5.38m in width and 4.75m in height with a pitched roof.
- 7.11 The Proposal would also include the capacity for two containerised battery storage units to allow for the storage of electricity during times where demand on the local distribution network is low. The battery storage containers would be located adjacent to the northern boundary of the Application Site. The battery storage containers would be raised

off the ground by 0.5m and measure 12.2m in length, 2.4m in width and have an overall height of 3.4m.

- 7.12 The Application Site would be enclosed by green wire mesh security fencing, measuring 3.3m in height. Inward facing CCTV cameras would be mounted on to the security fencing.
- 7.13 The proposal seeks permission for the use to be temporary, for a period of 40 years, with the land reverting back to its current state after this period unless a further grant of permission is made.
- 7.14 The application is accompanied by the following information in support of the proposal:
- Planning Policy Statement;
  - Design and Access Statement;
  - Scaled Plans and Drawings;
  - Landscape and Visual Impact Assessment;
  - Preliminary Ecological Appraisal;
  - Transport Assessment;
  - Glint and Glare Assessment;
  - Flood Consequence Assessment; and
  - Contaminated Land Site Investigation Report

#### The Principle of Development

- 7.16 National Policy and Guidance
- 7.17 The Welsh Government (WG) has clear priorities to reduce carbon emissions, with one of the important ways of delivering this being through the continued development of renewable energy generating projects. TAN8 included a target of 4 Twh per annum of renewable energy production by 2010 and 7 Twh by 2020.
- 7.18 PPW advises that the WG's aim is to secure an appropriate mix of energy provision for Wales, whilst avoiding, and where possible minimizing, environmental, social and economic impacts. This will be achieved through action on energy efficiency and strengthening Renewable energy production.
- 7.19 When considering planning applications for renewable energy schemes, WG advises that planning authorities should take into account:-
- The contribution a proposal will play in meeting identified national, UK and European targets and potential for renewable energy.
  - The wider environmental, social and economic benefits and opportunities from renewable energy and low carbon development.

- The impact on the national heritage, the coast and the historic environment.
- The need to minimize impacts on local communities, to safeguard quality of life for existing and future generations.
- To avoid, mitigate or compensate identified adverse impacts.

7.20 In addition, there is a raft of further key documentation relevant to the proposal, for example, EU Energy Strategy 2020, Climate Change Strategy for Wales (2010), Energy Wales a Low Carbon Transition (2014), Planning implications of Renewable and Low Carbon Energy – Practice Guidance (Welsh Government, 2011) and Planning for Renewable and Low Carbon Energy – A Toolkit for Planners (Welsh Government, 2015).

7.21 The above paragraphs therefore set out the national planning policy framework associated with renewable energy proposals.

7.22 The Planning and Compulsory Purchase Act 2004 stipulates at S.38 that 'if regard is to be had to the development plan for the purpose of any determination to be made under the Planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise'. Accordingly, the UDP is the starting point for the consideration of this application, unless National Planning Policy supersedes the provisions of those applicable policies

7.23 Local Planning Policy

7.24 There are a number of strategic and general policies within the UDP which are applicable to this proposal and I consider each in turn below:

7.25 STR1 New Development - Advises that development should generally be located within existing settlement boundaries, allocations, development zones, principal employment areas and suitable brownfield sites and will only be permitted outside these areas where it is essential to have an open countryside location.

7.26 STR7 Natural Environment – One of the stated aims of this policy is to safeguard Flintshire's natural environment by protecting and enhancing the character, appearance and features of the open countryside. The site is brownfield land within the settlement boundary and adjoins areas of industrial, commercial and residential development.

7.27 STR10 Resources – Criterion a) requires that new development must make the best use of resources through utilizing suitable brownfield land wherever practicable in preference to greenfield land or land with ecological, environmental or recreational value. The brownfield nature of the site satisfies this requirement. I am also satisfied that

proposal accords with criterion e of STR10 in that it clearly utilizes clean, renewable and sustainable energy generation.

- 7.28 Policy GEN1 requires that proposed development should harmonise with the site and surroundings and, amongst other matters, the development should not have a significant adverse impact on recognised wildlife species and habitats. The appraisal below illustrates that the proposals accord with these general policy aims.
- 7.29 Policy EWP1 therefore presumes in favour of renewable energy schemes subject to them meeting the other relevant requirements of the Plan and more detailed criteria are contained in EWP5 – Other Forms of Renewable Energy. The proposed development is considered to accord with these policies.
- 7.30 The UDP recognizes that the use of renewable energy, as opposed to conventional sources of power will help offset the use of finite resources and will assist in limiting the release of greenhouse gases into the atmosphere thereby contributing to addressing climate change. As such the Plan strongly encourages the generation of energy from renewable sources where its location and operation is environmentally acceptable.
- 7.31 Taking all of the above into account, I am comfortable that the proposals satisfy the requirements of national and local policy as a matter of principle.

#### Ecological Impacts

- 7.32 The application site is some 150 -200m south of the Dee Estuary SSSI/SAC/SPA/Ramsar site and River Dee SSSI/SAC with industrial units in between. The Dee Estuary SAC designation relates to the estuarine habitats while the SPA/Ramsar designations relation to the migratory and wintering bird populations, By comparison, the River Dee SSSI/SAC is primarily designated for migratory fish such as Atlantic salmon and otters
- 7.33 Under Regulation 48 of the Conservation (Natural Habitats) Regulations 1994, the Council must consider whether a development proposal in combination with other plans for projects is likely to have a significant effect on the Deeside and Buckley Newt SAC. Guidance to Local Planning Authorities is given in TAN 5: Nature and Conservation Planning (particularly paragraphs 6.3.6 and 6.3.7). In particular, at paragraph 6.3.7 it is stated: “It is clearly essential that planning permission is not granted without the planning authority having satisfied itself that the proposed development....would not impact adversely on any European protected species.....”
- 7.34 The effect of the proximity of these designations and the above referenced legislation is such that the need to ensure no adverse

impacts upon SSSI/SAC/SPA/Ramsar features arising from development proposals is a material planning consideration. Accordingly, it is essential that this matter is properly addressed in the consideration of this application.

- 7.35 There are no notable habitats on site as listed under the S7 Environment Act (Wales) 2016 and the site has low floral diversity and the species recorded were common and widespread.
- 7.36 The development would not lead to a direct loss of habitat within the SAC or SSSI. However, there are opportunities for habitat enhancement through the future management of the site e.g. to maintain short grassland suitable for reptiles within the development –in and around the solar panels and adjacent to the railway, together with enhancing the existing scrub woodland with additional native tree planting. This would also benefit other species such as hedgehogs recorded on site.
- 7.37 Taking all of the above into account, I am comfortable that the proposals satisfy the requirements of national and local policy subject to conditions in relation to site clearance and biodiversity enhancement.

#### Highway Impacts.

- 7.38 The application was accompanied by a Transport statement which has been the subject of consideration by the Local Highway Authority submitted. The Highways Officer has raised no objection subject to the submission of Construction Traffic Management Plan prior to commencement of development.

#### Impact of Glint and Glare

- 7.39 The solar farm will be located approximately 6.5km north-west of Hawarden Airport. This assessment pertains to the possible effects upon aviation activity, railway operations and signals, Clwydian Range and Dee Valley AONB and nearby roads and dwellings.
- 7.40 **ATC Tower**  
The analysis has shown that no solar reflection from the proposed solar development towards the ATC tower is geometrically possible. Therefore, no impact is expected, and no mitigation strategy should be implemented.
- 7.41 **Approaches**  
The analysis has shown that no solar reflection from the proposed solar development towards planes approaching Runway 22 is geometrically possible. However, reflection is geometrically possible for planes approaching Runway 04. The impact of solar reflections upon pilots is categorised as low because, when reflection occurs,

the reflective area will be outside the pilot's view (50° in both directions). This level of glare is acceptable based on the relevant guidance. No significant impacts on approaching aircraft are predicted.

#### 7.42 Railway Signals

The analysis has shown that a solar reflection from the proposed solar development towards a railway signal is geometrically possible. However, considering the orientation of the signal, any reflections would intercept the rear of the signal i.e. they would not illuminate the signal light directly. Therefore, no impact is anticipated.

#### 7.43 Railway Observers

The analysis has shown that a solar reflection from the proposed solar development towards train driver positions on the railway line are geometrically possible. However, it will be either sufficiently screened or not originating from within the train driver's field of focus. Therefore, no impact is anticipated.

#### 7.44 Dwellings

The analysis has shown that a solar reflection from the proposed solar development towards 12 of the 17 dwellings assessed is geometrically possible. However, it is concluded that impacts will be acceptable without further mitigation because:

- The solar reflection and direct sunlight will coincide meaning that the residents will likely see both the reflecting solar panel area and the Sun.
- The solar reflection will occur between 5:55-6:20 GMT which is early during the day.
- The solar reflection will not last more than 20 minutes per day.

Therefore, no significant impact is anticipated, and no mitigation is required

#### 7.45 Dock Road

The analysis has shown that a solar reflection from the proposed solar development towards road users travelling in both directions on Dock Road is geometrically possible. However, available imagery shows that screening in the form of vegetation and buildings will screen the reflections in all cases assessed. Therefore, no impact is anticipated.

#### 7.46 Fisherman's Road

The analysis has shown that a solar reflection from the proposed solar development towards road users travelling in both directions on Fisherman's Road is geometrically possible. However, available imagery shows that screening in form of vegetation and buildings will screen the reflections in all cases assessed. Therefore, no impact is anticipated.

- 7.47 Clwydian Range and Dee Valley AONB  
The analysis showed that no solar reflection is geometrically possible towards the reference locations within the AONB. Therefore, no mitigation is required.
- 7.48 AIRBUS, National Air Traffic Services and Network Rail have been consulted upon these reports and their findings. None raise any objection from a safeguarding perspective.

Impacts upon the visual character and appearance of the landscape

- 7.49 The proposals are accompanied by a Landscape and Visual Impact Assessment and a Historic Environment Assessment. These assessments have considered both the visual impacts of the proposed development from various vantage points around the site and also the impact of the proposals upon any historic assets in the locality.
- 7.49 The Application Site is not within the settings of any designated heritage assets, however nine grade II listed buildings are within 1km of the Application Site. There is no inter-visibility between the Application Site and these assets. The Proposals would not be capable of affecting the contribution made by setting to the heritage values of these assets.
- 7.50 The local landscape is largely characterised by urban and industrial development, Inter-visibility between the site and the surrounding areas is very limited with existing building and vegetation in and around the industrial estate largely screening view beyond its immediate vicinity. There would be some moderate effects on the character of the Application Site itself however wider effects on landscape character would be negligible.
- 7.51 Therefore it is considered, bearing in mind the above in regards to Policies GEN1 and L1 that the proposed development would comply with the policies i.e. in sequential terms the site is acceptable, being brownfield. Whilst it will have some degree of impact it would not be to the extent that it is unacceptable given the nature of development site.

Flood Risk

- 7.52 The site lies within Zone C1 and Zone B as defined by the development Advice Map referred to under Technical Advice Note (TAN) 15 Development and Flood Risk (July 2004), and is shown to be located partially within the 0.5% (1 in 100) and 0.1% (1 in 1,000) annual probability event (AEP) floor outline on the NRW Flood Risk Map.

- 7.53 The application is supported by a revised updated Flood Consequences Assessment (FCA) which has been updated to include additional flood risk data and revised mitigation measures. The FCA has included some breach outputs for the tidal Dee, which show the site to be at risk from flooding. It should be noted that the outputs are based on 100 years of climate change, which is in excess of the 40-year lifetime of development agreed for this scheme.
- 7.54 The proposed mitigation uses the River Dee defended in-channel level for the 0.5% Annual Exceedance Probability (AEP) event for the year 2065 as the design event, which is 6.90 m AOD. The FCA recommends that all vulnerable equipment including the panels, switchgear, batteries, inverter/transformers and grid connection substation will be set at a level of 7.20 m AOD, which provides a freeboard of 300 mm above the in-channel level. This approach is considered to be conservative, and NRW are therefore satisfied that the proposed mitigation measures will manage flood risk at the site to an acceptable level.

## **8.0 CONCLUSION**

- 8.1 The proposed development is therefore considered acceptable in both principle and detailed matters subject to conditions outlined in Paragraphs 2.01 above.

### **8.2 Other Considerations**

The Council has had due regard to its duty under Section 17 of the Crime and Disorder Act 1998 and considered that there would be no significant or unacceptable increase in crime and disorder as a result of the recommended decision.

The Council has acted in accordance with the Human Rights Act 1998 including Article 8 of the Convention and in a manner which is necessary in a democratic society in furtherance of the legitimate aims of the Act and the Convention.

The Council has had due regard to its public sector equality duty under the Equality Act 2010.

The Council has had due regard to its duty under Section 3 of the Wellbeing of Future Generations (Wales) Act 2015 and considered that there would be no significant or unacceptable impact upon the achievement of wellbeing objectives as a result of the recommended decision.

### **8.3 LIST OF BACKGROUND DOCUMENTS**

Planning Application & Supporting Documents

National & Local Planning Policy  
Responses to Consultation  
Responses to Publicity

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