

**FLINTSHIRE COUNTY COUNCIL**

**REPORT TO:** **PLANNING AND DEVELOPMENT CONTROL COMMITTEE**

**DATE:** **WEDNESDAY, 18 JANUARY 2017**

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

**SUBJECT:** **FULL APPLICATION - ERECTION OF 1 NO. WIND TURBINE (78M TO TIP) AND ANCILLARY INFRASTRUCTURE AND ACCESS AT KINGSPAN LTD. 2-4 GREENFIELD BUSINESS PARK 2, BAGILLT ROAD, HOLYWELL**

**APPLICATION NUMBER:** **052922**

**APPLICANT:** **KINGSPAN**

**SITE:** **2-4 GREENFIELD BUSINESS PARK 2, BAGILLT ROAD, HOLYWELL**

**APPLICATION VALID DATE:** **19.11.14**

**LOCAL MEMBERS:** **COUNCILLOR R DOLPHIN**  
**COUNCILLOR J JOHNSON**

**TOWN/COMMUNITY COUNCIL:** **HOLYWELL**

**REASON FOR COMMITTEE:** **HEIGHT OF TURBINE**

**SITE VISIT:** **YES FOR MEMBERS TO SEE THE VISUAL IMPACT**

**1.00 SUMMARY**

- 1.01 This is a full planning application for the erection of a single 78 metre high turbine, (50m to the hub), access tracks, temporary construction compound, crane hardstanding areas, electrical enclosures and underground cabling within the existing complex at Greenfield Business Park, Bagillt Road, Holywell.
- 1.02 The proposed wind turbine is to provide electricity for an existing business in an established industrial area. This concept is supported in principle. The application has been amended to take account of the issues previously raised and the westerly turbine has been removed from the scheme.

1.03 The landscape impacts of the turbine have been assessed and it is considered although there will be some adverse visual impacts as a result of the siting of a turbine of this scale, it can generally be accommodated within this landscape and any adverse impacts are balanced against the benefits of renewable energy generation and the wider social, environmental and economic benefits.

1.04 It is considered that the other matters set out in policy EWP4 have been addressed. The issues surrounding aviation safeguarding and potential impacts on radar can be dealt with through a suitably worded planning condition as suggested by the aerodrome. Ecological matters can also be dealt with by a suitable condition.

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

- 2.01
1. Commencement within 5 years
  2. Time limit 25 years operation from commencement
  3. Plans
  4. The noise level must not exceed the specified levels (to be included in the condition)
  5. Procedures for shadow flicker impacts if reported
  6. Timing of works and length of construction period to minimise disturbance on wintering birds
  7. Oystercatcher monitoring
  8. Ecological enhancements as set out in supplementary report
  9. Prior to commencement a Radar mitigation scheme to be submitted and agreed in writing
  10. Details of exact model and specifications of the turbine including colour and finish
  11. Micrositing of 5 metres
  12. The siting layout and design and the means of access to be approved prior to commencement of any site works
  13. Construction Traffic Management Plan
  14. Vehicle routing for abnormal indivisible loads to be submitted for approval. This shall identify any removal, replacement, medication and reinstatement of the highway required to accommodate these loads.
  15. Provision for parking and loading unloading of construction vehicles.
  16. Decommissioning scheme and site restoration
  17. Installation of flood proofing measures to equipment
  18. Details of aviation safety lighting
  19. Protocol for dealing with complaints relating to electromagnetic interference including proposed remedial measures

**3.00 CONSULTATIONS**

### 3.01 Local Member

#### Councillor R Dolphin

Requests a site visit and wishes members to visit Greenfield Docks to see the visual impact from the Coastal Path.

Objects to the application on the following grounds;

- The visual impact of the turbine due to its size will impact upon many properties in the area and users of the coastal path
- Impact on tv reception
- Flicker impact , flicker form blades could cause a reaction to people with epilepsy
- Impacts on wildlife in the area especially migrating birds
- Set a precedent for other turbines along the Flintshire Coast

#### Councillor J Johnson

No response received at time of writing.

#### Holywell Town Council

Despite the reduction in the proposal from two turbines to one maintains an objection on the following grounds;

- Impact on residential amenity by over dominance and operational noise
- Impact on the character and appearance of the area through the adverse visual intensity of the proposal
- Impact of construction on highway and general public health and safety linked to flashes/flickers from the large turbine blades and also any damage that may occur to the blades
- Impact on users of the coastal path
- Impact on air traffic using John Lennon airport and on the effective search and rescue and communications functions of emergency services air support units and the RNLI operating in the Dee Estuary

#### Highways Development Control Manager

No objections subject to conditions covering;

- The siting layout and design and the means of access to be approved prior to commencement of any site works
- Construction Traffic Management Plan
- Vehicle routing for abnormal indivisible loads to be submitted for approval. This shall identify any removal, replacement, medication and reinstatement of the highway required to accommodate these loads.
- Provision for parking and loading unloading of construction vehicles.

#### Public Rights of Way

Public Footpath No. 39 abuts the site but no Diversion Order or Temporary Closure Order is required to facilitate the development. Therefore unaffected by the development.

#### Liverpool John Lennon Airport

The airport was provided with a Line of Sight Report prepared by consultants Wind Power Aviation Consultants Ltd on behalf of the applicant in March 2016. The Airports Air Traffic Control Team reviewed the Report and concluded that the positioning and height of the proposed turbine is in a critical area where any degree of clutter from the turbine on the radar return would be unacceptable to ATC.

The Airport was unable to accept the findings of the Applicants report without further work being carried out to verify the Applicant's assessment. This verification was carried out by Osprey Consulting Service in November 2016. This concluded that "the single turbine would not be routinely detected by the LJLA PSR system as there is sufficient intervening terrain between the turbine and the PSR for it to be detectable."

Accepts the findings of the verification report and therefore the airport is in a position to withdraw its objection.

#### Public Protection Manager

I can confirm I have seen copies of the specification for the proposed wind turbine. I have also studied the noise report submitted with the application. The noise report states that the simple ETSU-R-97 level of 35dBA at nearby residential properties will not be reached. The noise report also includes a further background noise assessment of the area as outlined in ETSU-R-97. The further assessment undertaken shows that the application does conform to the ETSU-R-97 criteria.

Therefore, I have no objections to this application. However, I would advise that any permission granted be subject to the following conditions :-

- The noise level must not exceed the specified levels ( to be included in the condition
- Procedures for shadow flicker impacts if reported

#### Welsh Water/Dwr Cymru

The application does not propose to connect to the public sewer.

The site is crossed by a decommissioned water main and Welsh Water as a statutory undertaker has statutory powers to access apparatus at all times. It may be possible for this to be diverted.

#### Natural Resources Wales

The application site is close to protected sites namely the Dee Estuary Special Protection Area (SPA), designated under the EU Birds Directive. The SPA is also a Ramsar Site and Site of Special Scientific Interest (SSSI).

No objection as the proposal in its current form is not likely to adversely affect any Protected Sites or Protected Species.

The site lies wholly within Zone C1 of the Development Advice Maps referred to under TAN 15: Development and Flood Risk. A limited FCA has been submitted with the application. This implies that all principal components of the wind turbine generator will be located approx. 2 metres above ground level with the exception of the turbines transformer. These are likely to experience a greater degree of flood risk, however given the flood resilient nature of the proposed development and that it will predominately supply electricity directly to Kingspan it is considered that this risk is acceptable subject to the installation of flood proofing measures.

#### Airbus

The safeguarding assessment shows that the turbine will still interfere with the radar at Hawarden aerodrome and they require a suitable radar mitigation scheme to be secured by condition. The applicants have agreed to sign the legal agreement with Airbus. Accept a condition to secure the radar mitigation scheme. Until this agreement has been signed and the condition secured they would still maintain an objection.

#### Wales and West Utilities

No objection but have apparatus which may be at risk during construction works.

#### Network Rail

Would like to see the turbine and any equipment sited so that the lateral distance from the railway boundary to the foot of mast is greater than the height of mast and length of propeller blade +3m from the railway boundary. Consultation needs to be undertaken for any abnormal loads which need to cross the railway bridge.

#### CADW

The proposed development is located 600m to the east of the scheduled monument and Cadw guardianship site known as FL001: Basingwerk Abbey. This is an amended scheme of a single turbine development following the removal of a second turbine (T1) to the North West, over which we raised concerns about in December 2014 due to potentially significant visual impacts on the setting of Basingwerk Abbey.

This advice is based upon the LVIA Addendum submitted by the applicant, and photomontage and wireframe drawings taken from viewpoint B2 of that document (Figures A3, A4) and Cadw's own mapping records. The LVIA concludes that there will be 'no change' to views from the Abbey towards the proposed turbine, citing the screening effects of the Abbey buildings and mature tree coverage around the edge of the site. The LVIA should acknowledge that this

assumes the longer term presence of the trees on the boundary of the Greenfield Valley site and that any screening that they provide will be seasonal; it is also possible that there may be still be views of the turbine from different locations within the scheduled area of the Abbey other than the chosen viewpoint. However, in our opinion such views are likely to be greatly reduced by a combination of the intervening topography of the ridge to the south east and seasonal vegetation. We therefore agree with the conclusion of the LVIA that the proposed turbine will have no significant impact on the setting of Basingwerk Abbey.

This proposal also lies within 5km of three historic park and gardens known as C3 Downing, C14 Mostyn Hall and C40 Pantasaph, which are included in the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. In our opinion visibility from the registered parks seems unlikely.

#### Clwyd Powys Archaeological Trust

We note the removal of the northernmost turbine from the scheme and this is welcomed in terms of the visual impact upon the Basingwerk Abbey scheduled monument.

The remaining turbine does not appear to intrude within the views presented for Basingwerk Abbey (B1 wireframe and photomontage) and we would therefore have no objection to this single turbine.

#### Clwydian Range and Dee Valley AONB Joint Committee

The Joint Committee notes that the amended application is for one turbine in place of the two originally proposed. Although the turbine would be visible in some limited views from and of the AONB, having regard to the reduced height, local topography and the distance from the AONB the committee does not consider there will be a significant impact on the nationally protected landscape of the Clwydian Range and Dee Valley.

#### Ministry of Defence

No objection.

In the interests of air safety the MOD will request that the development should be fitted with aviation safety lighting. The turbine should be fitted with 25 candela omni-directional red lighting or infrared lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point.

The principal safeguarding concern of the MOD with respect to the development of wind turbines relates to their potential to create a physical obstruction to air traffic movements and cause interference to Air Traffic Control and Air Defence radar installations.

Defence Infrastructure Organisation Safeguarding wishes to be

consulted and notified of the progression of planning applications and submissions relating to this proposal to verify that it will not adversely affect defence interests.

If planning permission is granted we would like to be advised of the following prior to commencement of construction;

- the date construction starts and ends;
- the maximum height of construction equipment;
- the latitude and longitude of every turbine.

This information is vital as it will be plotted on flying charts to make sure that military aircraft avoid this area.

#### RSPB

The RSPB welcomes measures proposed to reduce disturbance at roost sites and implement post construction monitoring of roost sites as set out in sections 7.5.4 and 7.5.5 of the updated Environmental Statement (ES). However they maintain their objections until the wording of the draft conditions has been seen. Would be willing to withdraw their objection following sight of the draft conditions.

### **4.00 PUBLICITY**

#### 4.01 Press Notice, Site Notice and Neighbour Notification

6 letters of objection were received to the initial application for two turbines following consultation in November 2014. A re-consultation exercise was undertaken when T1 was removed from the scheme in November 2015. In response to the revised application for 1 turbine 2 objections were received on the grounds of;

- The revised application for 1 turbine still has the same problem as the previous application. It is still very high and is an eyesore as a backdrop to Basingwerk Abbey which is a major visitor attraction and Scheduled Ancient monument
- the wind turbine will be visible from residential properties and the turning blades will never blend into the landscape
- Turbines can lead to health issues in people viewing the turbine
- The green energy requirement could be met by smaller turbines or solar panels on the roof of the building.
- The viewpoints do not show the true impact on Holywell towards Carmel
- Will set a precedent for other turbines in the area and we can already see the off shore ones and ones in Liverpool
- Visual impact – contrary to policies GEN1, L1, EWP4 and STR7
- Proximity to SSSI/SAC/RAMSAR
- Impact on Wales coastal path

An objection was received to the application for two turbines. We would like to reiterate our previous concerns, however if these have been ameliorated by the removal of the western turbine then this is a vast improvement. We do not wish to remove the objection from file.

## **5.00 SITE HISTORY**

5.01 Various, but of most relevance are:-

050941 - 2 No. extensions to existing production building – granted 13<sup>th</sup> August 2013.

049300 – Erection of 2 no wind turbines (110m to the tip) and ancillary infrastructure and access. Refused 07.11.13.

048323 - Retention of 50 m high anemometry mast for a temporary period of 3 years – granted 19<sup>th</sup> May 2011.

048361 - Installation of photovoltaic roof mounted power plant and associated electrical engineering works (retrospective) – granted 14<sup>th</sup> April 2011.

044135 - Erection of a met mast – granted 7<sup>th</sup> February 2008.

044134 - Erection of a wind turbine – withdrawn 21<sup>st</sup> December 2007.

041540 - Erection of a small scale wind turbine to supply electricity to Kingspan offices – granted 11<sup>th</sup> September 2006.

038621- Extension to existing office to form training and visitor centre with associated car parking – granted 2<sup>nd</sup> September 2005.

## **6.00 PLANNING POLICIES**

6.01 Flintshire Unitary Development Plan

Policy STR1 – New Development

Policy STR2 – Transport and Communications

Policy STR3 – Employment

Policy STR7 – Natural Environment

Policy STR8 – Built Environment

Policy STR10 – Resources

Policy GEN1 – General Requirements for Development

Policy GEN3 – Development in the open countryside

Policy GEN5 – Environmental Assessment

Policy EM1 (14) - General Employment Land Allocations

Policy D1 – Design Quality, Location & Layout

Policy D2 – Design

Policy D3 – Landscaping

Policy D4 – Outdoor Lighting

Policy L1 – Landscape Character



Policy L2 – Area of Outstanding Natural Beauty  
 Policy WB1 – Species Protection  
 Policy WB2 – Sites of International Importance  
 Policy WB3 – Statutory Sites of National Importance  
 Policy HE2 – Development Affecting Listed Buildings & Their Settings  
 Policy HE6 – Scheduled Ancient Monuments & Other Nationally  
 Important Archaeological Sites  
 Policy AC12 – Airport Safeguarding Zone.  
 Policy AC13 – Access & Traffic Impact  
 Policy EWP1 – Sustainable Energy Generation  
 Policy EWP4 – Wind Turbine Generation  
 Policy EWP12 – Pollution  
 Policy EWP13 – Nuisance  
 Policy EWP17 – Flood Risk  
 National Policy  
 Planning Policy Wales Edition 8 January 2016  
 Technical Advice Note (TAN) 5: Nature Conservation & Planning  
 (2009).  
 Technical Advice Note (TAN) 6: Planning for Sustainable Rural  
 Communities (2010).  
 Technical Advice Note (TAN) 8: Renewable Energy (2005).  
 Technical Advice Note (TAN) 11: Noise (1997).  
 Technical Advice Note (TAN) 18: Transport (2007).  
 Additional Guidance  
 ETSU-R-97 – The Assessment and Rating of Noise from Wind Farms.  
 Its compliance in association with the above policies is addressed  
 below.  
 Practice Guidance: Planning Implications of Renewable and Low  
 Carbon Energy February 2011

## **7.00 PLANNING APPRAISAL**

### 7.01 Introduction

This is a full planning application for the erection of a 78 metre high (to the blade tips) wind turbine 0.9MW, access tracks, temporary construction compound, crane hardstanding areas, electrical enclosures and underground cabling within the existing complex at Greenfield Business Park, Bagillt Road, Holywell.

### 7.02 Site Description

It is proposed to locate the 0.9MW turbine within the existing Kingspan factory site which comprises a number of large industrial buildings, hardstandings storage of materials and internal access roads for the manufacturing and storage of insulated panels. The location proposed within the complex for the turbine is currently used for lorry parking and storage and is located within the south east of the site. The application site itself is 0.39 ha.

7.03 The site is bounded to the north east by open land and then the Dee Estuary adjacent to which runs along the Coastal Path. To the south

of the complex is the railway line. The site is all located within the Greenfield Business Park. Its immediate neighbours are industrial businesses.

#### 7.04 Site History

A previous planning application (049300) was submitted in December 2011 for the erection of two wind turbines and ancillary equipment of 110 metres in height. One of the turbines which was the subject of that planning was in the same location as the current turbine and there was an additional turbine located to the western end of the complex. This was refused by Planning and Development Control Committee on 7<sup>th</sup> November 2013 for the following reasons.

1. Due to the height, size, location and movement of the turbines, it is considered that they would have a significant detrimental visual impact upon the character and appearance of the wider landscape and thereby contrary to Policies GEN1, L1, EWP4, and STR7 of the Flintshire Unitary Development Plan.

2. Due to the height, size, location, movement and views of them, the proposed turbines are considered to adversely affect both the setting of the Scheduled Ancient Monument and Grade 1 Listed Building of Basingwerk Abbey and thereby contrary to Policies HE6, HE2 and EWP4 of the Flintshire Unitary Development Plan.

3. It is considered that due to the height, size, location and movement of the proposed turbines, they would have a detrimental impact upon the safe and efficient operation of both Hawarden and Liverpool John Lennon Airports and thereby contrary to Policy EWP4 (e) of the Flintshire Unitary Development Plan.

7.05 A revised application subject of this report (052922) was then submitted for two turbines in the same locations but at a reduced height of 78 metres to the tip of the blade. Following consultation on this the applicant then decided to remove one of the turbines (T1) as the visual impact on Basingwerk Abbey and from other viewpoints was still an issue and the previous reasons for refusal had not been overcome. The current application is therefore for a 78 metre single turbine sited to the east of the Kingspan complex. (T2)

#### 7.06 Proposed Development

It is proposed to erect a single 78 metre high turbine, (50m to the hub), access tracks, temporary construction compound, crane hardstanding areas, electrical enclosures and underground cabling. The turbine tower would be of tapered tubular steel construction and the blades of fibreglass with lightning protection. The finish of the turbine would be of a low-reflectivity semi-matt white to mid-grey hue.

7.07 Kingspan manufactures insulated panels and directly employs 350 staff on site. The turbine is to generate energy to meet Kingspan's

on-site energy usage and desire to be carbon neutral. Kingspan have a corporate target to make their manufacturing sites net zero energy by 2020 with an interim target of achieving 50%. In April 2011 Kingspan gained planning permission for the installation of a roof mounted photovoltaic power plant and associated engineering works (048361). This development has been implemented and has an output of 0.4MW.

7.08 The application has been accompanied by an Environmental Statement compiled by Wind Direct. This includes;

- Landscape and Visual Assessment by Aspect Landscape Planning
- Ecological Assessment by Avian Ecology
- Aviation Assessments by Aerostat Surveys Ltd
- Noise Assessment by KR Associates
- Basingwerk Abbey Cultural Heritage Assessment by CFA Archaeology Ltd

7.09 It is anticipated that the construction period would be 4 months. The turbine would have a 25 year operating period after which it would be decommissioned. The decommissioning phase will be short term and temporary. The project would be subject to a separate grid connection.

7.10 Issues

National and local policy set out the issues to consider in assessing wind turbines. At a national level Practice Guidance: Planning Implications of Renewable and Low Carbon Energy February 2011 sets out the matters to consider in assessing proposals for wind turbines. At a local level Policy EWP4 of the Adopted Flintshire UDP sets out the criteria for assessing the impacts of wind turbine development. These criteria are;

- a) The development is not sited within, nor would have a significant adverse impact on, a sensitive area of national or regional environmental, landscape or heritage importance,
- b) The development in conjunction with other wind turbine developments will not have a detrimental cumulative impact upon the landscape
- c) The impact of the development upon agriculture, forestry, recreation and other land uses is minimised to permit existing uses to continue unhindered
- d) The turbines will be appropriately designed so as to avoid or mitigate against, unacceptable environmental impacts including noise, light reflection, shadow flicker and impact on wildlife
- e) Sufficient steps are taken to avoid or where possible to mitigate electromagnetic interference to any existing transmitting or receiving systems
- f) Where the development of associated ancillary buildings is required the structures are sensitively designed to enhance the character and quality of the locality and

g) Adequate provision has been made in the scheme for the restoration and aftercare of the site on the cessation of the use.

7.11 These are dealt with below through a discussion of the main issues. The key issues to consider in addition those in the above policy are the impact on; Airport Safeguarding and Policy AC12; the impact on wildlife using the Dee Estuary Special Protection Area, RAMSAR site and Site of Special Scientific Interest and the impact on The Scheduled Ancient Monument and Grade 1 Listed Building.

7.12 Principle of Development – National Policy Context

In terms of national guidance, Planning Policy Wales (PPW) advises that the Assembly Government's aim is to secure an appropriate mix of energy provision for Wales, whilst avoiding, and where possible maintaining environmental, social and economic impacts. This will be achieved through action on energy efficiency and strengthening renewable energy production.

7.13 In considering planning applications for renewable energy schemes, the Welsh Government advises that planning authorities should take account of:-

- The contribution a proposal will play in meeting identified national, UK and European targets.
- 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 minimise impacts on local communities, to safeguard quality of life for existing and future generations.
- To avoid, mitigate or compensate identified adverse impacts.
- The impacts of climate change on the location, design, build and operation of renewable and low carbon energy development.
- Grid connection issues where renewable (electricity) energy developments are proposed; and
- The capacity of and effects on the transportation network relating to the construction and operation of the proposal.

7.14 Welsh Government also advise that most areas outside strategic search areas within urban locations should remain free of large wind power schemes. It states 'in these areas there is a balance to be struck between the desirability of renewable energy and landscape protection'. Whilst that balance should not result in severe restriction on the development of wind power capacity, there is a case for avoiding a situation where there is a proliferation of turbines across the whole of a county.

7.15 Welsh Government has clear priorities to reduce carbon emissions with one of the ways of delivering this being through the continued

development of renewable energy generating projects. TAN8 Renewable Energy included a target of 4 TWh per annum of renewable energy production by 2010 and 7 TWh by 2020. In a letter from the then Minister of Environment and Sustainable Development to Heads of Planning in July 2011 it states that the PPW 2000MW onshore wind target would be achieved by 1700MW coming from within Strategic Search Areas and the remaining 300MW anticipated to come from a combination of development under 25MW, brownfield sites as well as community and local schemes and a contribution from micro-generation. As of 2015 756MW of this target has been developed or consented with a further 963MW in the form of undetermined planning applications. This includes both types of schemes.

- 7.16 Within PPW Figure 12.3 identifies renewable and low carbon energy scales for planning purposes;
- Strategic – over 25MW for onshore wind
  - Local Authority wide – between 5MW and 25 MW for onshore wind
  - Sub Local Authority area – between 50kW and 5MW.
- 7.17 Practice Guidance: Planning Implications of Renewable and Low Carbon Energy February 2011 sets out the issues local planning authorities should consider in determining applications for energy generation by wind turbines.
- 7.18 Local Planning Policy  
In terms of Local Planning Policy, the Flintshire Unitary Development Plan (UDP) strategy, identifies that sustainable development is a key theme within the plan, in line with PPW. The vision for the plan is 'to nurture sustainable development capable of improving the quality of life in Flintshire without causing social, economic, resource or environmental harm to existing or future generations'.
- 7.19 The application site lies outside the defined settlement limits and within the open countryside however it is within an existing employment area covered by Policy EM1 (14) General Employment Land Allocations Greenfield Business Park Phase II. It is therefore within a brownfield site and set in a localised industrial context.
- 7.20 Policy GEN3 sets out the types of development which may be acceptable within the open countryside. Criterion (j) refers to development which is appropriate to the open countryside and where it is essential to have an open countryside location.
- 7.21 Policy STR10 of the UDP provides guidance on the issue of resources and in terms of energy, criterion e advises 'utilising clean, renewable and sustainable energy generation where environmentally acceptable, in preference to non-renewable energy generation and incorporating energy efficiency and conservation measures in new development.

In addition Policy EWP1 adopts a presumption in favour of renewable energy schemes subject to them meeting the other relevant requirements of the plan.

- 7.22 The detailed guidance on wind turbine development is set out in Policy EWP4 'Wind Turbine Development', which requires proposals to meet a number of criteria as set out above.
- 7.23 It is clear that there is a positive approach taken by Welsh Government to renewable energy having regard to the issue of global warming and climate change. The clear message of both PPW and the Flintshire Unitary Development Plan is that renewable energy proposals should be permitted unless there are unacceptable impacts on landscape, nature conservation and/or residential amenity in relation to noise and shadow flicker contrary to the criteria in Policy EWP4 of the UDP.
- 7.24 There are no planning permissions for large scale wind farms within the county. Permission has been granted for smaller scale turbines 15 – 20Mw in various locations across Flintshire. The only permission for a larger turbine to date is at West Coast Energy's offices in Mold. This is for a 35 metre high turbine of 55kw. This permission has recently been renewed and it is not operational.
- 7.25 In terms of the principle of development, this is therefore supported subject to an assessment of the impact of the siting of the turbine as discussed below.
- 7.26 Impact on Character & Appearance of Landscape  
The proposal was accompanied by a Landscape and Visual Impact Assessment undertaken by Aspect Landscape Planning. This was supplemented by an Addendum following the removal of T1. The Council had this reviewed by an Independent Landscape Architect.
- 7.27 The site lies to the north east of Holywell within an existing industrial area located between the A548 road corridor and the Dee Estuary. The industrial area comprises large scale built form, a sewage treatment works, a recycling centre and extensive area of hardstanding associated with service yards and surface storage. The mainline railway line between Chester and Holyhead defines the southern edge of the site within an area of open ground and scrub separating the Kingspan site from the estuary to the north. The site is set adjacent to the Dee Estuary with the landform rising to the south west. Holywell is located in an elevated position to the south west with the landscape adopting an undulating character. Within the immediate setting of the site the landscape is characterised by industrial brownfield sites. Beyond the industrial area a network of medium scale fields create a degree of separation between the site and main settlement of Holywell.

- 7.28 Despite the rural character of the wider setting there were a number of settlements within the Zone of Theoretical Visibility Models which covered a 15km radius study area. There are also a number of key transport routes and recreational receptors in the form of public rights of way and areas of publicly accessible land within the 15km study area. The site lies outside of the Clwydian Range Area of Outstanding Natural Beauty (AONB) which is located 8 -15 km to the south west. The site is not theoretically visible from the AONB.
- 7.29 The original assessment considers the impact of the turbine from 11 viewpoints to assess the impact from a number of receptors. The addendum following the removal of Turbine 1 included extra viewpoints on the Coastal path at the Council's request. The original LVIA for the two turbines considered that there would be significant visual effects from 5 of the 11 viewpoints and predicted significant visual effects from a sixth viewpoint and at locations along the Wales Coastal Path.
- 7.30 Following the removal of T1, the revised LVIA concluded that only one viewpoint will experience significant visual effects. This viewpoint is one of the two additional viewpoints from the Wales Coastal Path and is located just half a kilometre to the south of the Kingspan site. However the LVIA considers that there is a substantial reduction in visual effects from the amended proposal. The reduction in height of the turbine by over 30 metres results in the proposals being afforded a much greater degree of visual containment by intervening built form and vegetation in particular from viewpoints lower down in the landscape.
- 7.31 In terms of transport routes, the turbine will remain visible from certain viewpoints along the A548, A5026 and B5121 and the railway line. Within the immediate setting of the site, significant effects will still be experienced by road and rail users where the proposed turbine is visible within the Kingspan site. The transient nature of the receptors means that such views are fleeting.
- 7.32 In terms of recreational receptors the highest sensitivity receptors are those walking, cycling or riding through the landscape. These receptors are considered to be of high sensitivity. There are a number of national and regional cycle routes, national and long distance trails, a network of local rights of way, areas of Open Access land within the study area.
- 7.33 With regard to the National Cycle Routes 5 and 56 these both pass through the study area with ZTV illustrating some visibility. The visibility from NCR56 results in a neutral effect. From NCR5 there will be some glimpsed views of the blades resulting in a negligible magnitude of change and an effect of moderate/minor significance. However much of the route passes through urban areas or well-vegetated street scenes and it is considered that the perceived effect

would be highly localised. The LVIA considered that the proposal can be integrated without detriment to the amenity of this route.

- 7.34 Regional Cycle Routes 70 and 89 these are located on the northern side of the estuary and as such views across to the proposals are likely. However they will be seen as a minor component within the views and as such it is considered will result in a slight magnitude of change and therefore be of moderate significance. Again any views would be highly localised as a result of intervening topography.
- 7.35 It is therefore considered that the proposal meets with criteria c of Policy EWP4 in terms of the impacts on recreational users of nearby land uses.
- 7.36 With regard to Holywell Heritage Park located to the south west of the site the removal of T1 has removed any impact on views from this area.
- 7.37 The Council's independent Landscape Architect agrees with the applicant's conclusions however also considers that there would still be a significant adverse effects from Viewpoint 2: View north east from the junction of Wood Lane and Awel y Mor and Viewpoint 7: View north from open access land at Halkyn Mountain. A turbine of this scale is always going to have some adverse landscape impacts in any context. There are no potential mitigation measures that could limit the impacts due to the nature of the proposal. However the Landscape Architect appointed by the Council does not consider that there is a strong enough case to refuse the application on landscape impact grounds.
- 7.38 The cumulative effects of the proposal have also been assessed in relation to other similar proposals. The proposed scheme is well separated from other offshore wind turbine schemes and those at Seaforth and Port of Liverpool. There will therefore be a limited magnitude of change and the turbine can be integrated without detriment or creating significant adverse cumulative effects.
- 7.39 Despite the adverse landscape impacts from some viewpoints It is considered that the turbine does meet with criteria a) and b) of policy EWP4. In terms of criteria a the proposal is not sited within, nor would have a significant adverse impact on a sensitive area of national or regional environmental, landscape or heritage importance and in terms of criteria b the cumulative impacts would be acceptable. Also in terms of any ancillary equipment and criteria f) of policy EWP4, the impact of this will be negligible in the existing industrial context.
- 7.40 Aerodrome safeguarding  
The application site is within the consultation zone for Liverpool John Lennon Airport and Hawarden aerodrome. Both aerodromes raised objections to the previous application which led to a reason for refusal.



Throughout this application process the applicants have been working with the airports and aviation consultants to try to overcome these objections and demonstrate that the turbine would not affect the safe operation of the airports.

- 7.41 The turbine is 23km west-southwest of Liverpool John Lennon Airport (LJLA). A Radar Impact Assessment in respect of John Lennon Airport was undertaken in October 2014 by Aerostat Surveys Ltd and was submitted with the planning application. This assessment concluded that radar equipment at LJLA is highly unlikely to suffer any interference as a result of the proposed turbines. However Liverpool John Lennon Airport undertook their own in house assessment and concluded that there is still some line of sight within the primary surveillance radar creating clutter.
- 7.42 Following these concerns a “A Line of Site Report” by Wind Power Aviation Consultants Ltd” was submitted in March 2016 and was reviewed by LJLA. At the same time Air Traffic Control at LJLA carried out its own internal assessment which concluded that the positioning and height of the proposed turbine is in a critical area where any degree of clutter from the turbine on the radar return would be unacceptable to LJLA Air Traffic control. The Airport suggested that the applicant commission an independent verification exercise of the Line of Sight Report to determine that there will be no unacceptable impact. In the event of impacts, that verification exercise can also then identify the range of mitigation measures available to the applicant to abate the impact to an acceptable level.
- 7.43 A further Briefing Note was prepared by Osprey Consulting Services in November 2016 which undertook an additional Line of Sight Assessment for the turbine to assess if the turbine would be detectable on the Primary Surveillance Radar at LJLA. This concluded that “the single turbine would not be routinely detected by the LJLA PSR system as there is sufficient intervening terrain between the turbine and the PSR for it to be detectable.” LJLA accepts the findings of the verification report and therefore the airport is in a position to withdraw its objection.
- 7.44 The turbine is also within the consultation zone for Hawarden aerodrome. A Radar Mitigation Options Report was submitted as part of the Environmental Statement by Aerostat Surveys. This concludes that a radar mitigation scheme is viable. The applicants have also been in discussions with them regarding the safeguarding concerns raised. A radar mitigation scheme has been proposed similar to the one used at the Frodsham wind farm under operation by Peel Holdings. Airbus will accept a suitable condition to this affect.
- 7.45 It is therefore considered that the proposed development is in accordance with Policy AC12 of the Flintshire Unitary Development Plan.

- 7.46 Setting of Scheduled Ancient Monuments  
CADW have been consulted upon the likely impacts of the developments upon the Scheduled Ancient Monuments or registered historic landscapes, parks and gardens in the area. The application was accompanied by a Cultural Heritage Assessment.
- 7.47 The proposed development is located in the vicinity of the Scheduled Ancient Monuments known as Basingwerk Abbey, Holywell Castle, Wat's Dyke NE of Meadow Mills, St. Winefride's Chapel and Greenfield Valley Mills.
- 7.48 Basingwerk Abbey  
It was considered as part of the previous application that both turbines would be visible as a major feature in the skyline to the east of the Abbey. The turbines were therefore reduced in height and T1 has since been removed from the scheme.
- 7.49 The setting of the Abbey when looking towards the site was one of wooded seclusion with a fall to the coastal plain beyond. This aspect appears in several antiquarian views including those of Moses Griffith and PC Canot (1778). It is considered this setting makes a connection to the understanding and appreciation of the Abbey and the Cistercian ideals that influenced its location. On an arc running from the farm/museum to the south west through to the industrial estate to the north east, this setting has been substantially altered by post-medieval and more recent encroachment.
- 7.50 The proposed development is located 600m to the east of the scheduled monument and Cadw guardianship site known as FL001: Basingwerk Abbey. This additional information presents the scheme as a single turbine development following the removal of a second turbine (T1) to the North West, over which CADW raised concerns in December 2014 due to potentially significant visual impacts on the setting of Basingwerk Abbey.
- 7.51 The LVIA Addendum concludes that there will be 'no change' to views from the Abbey towards the proposed turbine, citing the screening effects of the Abbey buildings and mature tree coverage around the edge of the site. CADW consider that the LVIA should acknowledge that this assumes the longer term presence of the trees on the boundary of the Greenfield Valley site and that any screening that they provide will be seasonal; it is also possible that there may still be views of the turbine from different locations within the scheduled area of the Abbey other than the chosen viewpoint. CADW consider that such views are likely to be greatly reduced by a combination of the intervening topography of the ridge to the south east and seasonal vegetation. CADW therefore agrees with the conclusion of the LVIA that the proposed turbine will have no significant impact on the setting of Basingwerk Abbey.

- 7.52 This proposal also lies within 5km of three historic parks and gardens known as C3 Downing, C14 Mostyn Hall and C40 Pantasaph, which are included in the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. CADW consider that visibility from the registered parks seems unlikely.
- 7.53 CADW now raise no objection to the proposed siting of the turbine. It is therefore considered that the proposed development complies with Policy EWP4 a) and HE6 of the Flintshire Unitary Development Plan.
- 7.54 Ecology  
The development site is adjacent to the Dee Estuary Special Protection Area (SPA), designated under the EU Birds Directive. The SPA is also a Ramsar Site and Site of Special Scientific Interest (SSSI), designated and protected under the Wildlife & Country Act 1981 (as amended) and the Conservation of Habitats & Species Regulations as amended. These designations are due to the estuary's importance as a wintering site for significant populations of migratory waders including Oystercatchers, and its importance for breeding seabirds such as Little Terns.
- 7.55 The key issue with regard to this application is the turbines potential disturbance effects on the migratory and wintering waders. The southern turbine (T2) is in close proximity to the designated site: 250 m from the foreshore and foraging sites and 300 m of the designated SPA/Ramsar feature, oyster-catcher high tide roost.
- 7.56 With respect to this supplementary information has been provided by the applicant summarising existing research/monitoring work regarding the likely reaction of roosting oystercatchers to the presence of an operational wind turbine, located approximately 250 m from the roost. This information illustrates the paucity of research work on turbines and wader roosts, but both Natural Resources Wales and the Royal Society for the Protection of Birds accept that from this limited evidence, oystercatchers appear to be one of the less sensitive species of waders to suffer displacement from turbines.
- 7.57 As the proposals may therefore impact on the SPA/SAC, a Habitat Regulation Assessment (HRA) under Regulation 61 (Conservation of Habitats & Species Regulations 2010) has been undertaken. This concludes that taking into account the site's conservation objectives and precautionary principle that oystercatchers are not likely to suffer displacement from wind turbines provided mitigation measures are undertaken to avoid potential in combination effects.
- 7.58 It is accepted that birds roosting (winter) on the salt marsh also suffer from recreational disturbance. Fencing/planting adjacent to the footpath would help protect the roost in the long term and avoid an in combination effect.

- 7.59 The extended Phase 1 habitat survey also assessed the area for otters. There is no potential for otters on the site but the proposed enhancements to reduce recreational pressure on the adjacent saltmarsh would potentially benefit otters as well as roosting oystercatchers.
- 7.60 To conclude, it is considered that any construction effects can be avoided through timing of works and pollution controls. From the supplementary information submitted it is considered that the turbines are unlikely to have a significant effect on features of the Dee Estuary SPA/Ramsar Site, namely migratory and wintering waders and wildfowl, in this case specifically oystercatchers. Monitoring during the construction and operation of the turbines will provide more robust information to demonstrate this and highlight any changes. This will be secured by condition.
- 7.61 The enhancement works referred to within the supplementary information such as fencing the marsh, widening and/or other salt marsh restoration works should be undertaken to protect the roost and avoid a potential in combination effect. This will be secured by condition.
- 7.62 NRW do not object to the proposed siting of the wind turbine. RSPB are satisfied with the submitted revised information however maintain their objection until the detailed wording of the conditions has been drafted. This however would follow the recommendation to grant permission.
- 7.63 It is therefore considered that the proposal complies with policies WB1, WB2 and criteria a and d of Policy ESP4 of the Flintshire Unitary Development Plan.
- 7.64 Highways  
The turbine components would be brought into the UK from mainland Europe via the ports of Southampton, Immingham or Grangemouth and would access the local road network via the M56. From the M56 the components would travel along the A5117, A548 and un-classified road and the site. The local road network is suitable to take the loads subject to some localised minor highway improvements. The Highways Development Control Manager has no objection subject to conditions covering the access, Construction Traffic Management Plan and an Abnormal Loads Assessment.
- 7.65 Flood Risk  
The site lies wholly within Zone C1 of the Development Advice Maps referred to under TAN 15: Development and Flood Risk. A limited FCA has been submitted with the application. This implies that all principal components of the wind turbine generator will be located approx. 2 metres above ground level with the exception of the turbines

transformer. These are likely to experience a greater degree of flood risk, however given the flood resilient nature of the proposed development and that it will predominately supply electricity directly to Kingspan it is considered that this risk is acceptable subject to the installation of flood proofing measures.

7.66 Visual impact from residential properties

The removal of T1 therefore increases the distance to residential properties on Station Road which were the nearest properties to the turbines. The nearest properties to T2 are Derby Terrace on the A548 Bagillt road at approximately 400 metres, with a number of other properties along this road. Two of the viewpoints within the LVIA are taken from this area R1 and R2. The proposals will be seen in the context of the existing industrial estate which forms the setting of these views. T2 is seen within the context of intervening mature vegetation which creates a vertical scale and integrates the turbine.

7.67 While significant visual effects are possible from properties within Holywell within 1km of the site where the proposals will be visible above the existing industrial area. The LVIA concludes that where the proposal is visible it will not give rise to an overwhelming and unavoidable degree of change so as to make the outlook from the properties unsatisfactory.

7.68 Within 1-5km of the site it is indicated that there are possible views from the wider setting of Holywell, Bagillt, Mostyn, Gorsedd and Pentre Halykn. However field assessments have indicated that the proposals will only give rise to a slight magnitude of change within the context of views from Mostyn, Gorsedd and Pentre Halkyn as a result of intervening features and the general orientation of many properties within the various settlements. More properties are likely to experience views within the wider settlement of Holywell and parts of Bagillt, where direct views towards the proposed turbines will give rise to a moderate degree of change. It is considered that some properties will experience a major/moderate effect however this significant change will not be so great as to make the outlook from the properties unsatisfactory.

7.69 Noise

Wind turbines emit two types of noise: aerodynamic noise provided by the movement of the rotating blades through the air; and mechanical noise from gearboxes or generators. New turbines have been designed to reduce noise outputs. UK Government Guidance (ESTU-R-97 The Assessment and Rating of Noise from Wind Farms) sets out that noise from wind turbines should be no more than 5dB above existing background noise levels during the day and night.

7.70 A noise survey has been carried out based on relevant government guidance to assess potential noise impacts on the nearest residential receptors. This concluded that noise from the turbine would remain

within 5dB above the background noise levels during both day and night.

7.71 Public Protection have reviewed the submitted information and have no objection subject to a condition on noise levels to ensure that the turbine does not exceed the predicted levels.

7.72 Shadow flicker

Shadow flicker can occur when the blades of a wind turbine cover the sun for brief moments as they rotate. There is the potential for some limited shadow flicker occurrences resulting from the turbines. Where shadow flicker is identified to be a problem mitigation measures will be implemented. The worst case scenario of shadow flicker hours are 177 hours per year. This is 2.02% of its operating time.

7.73 Public Protection are satisfied with the scheme and that a condition be imposed to mitigate any shadow flicker impacts. The mitigation strategy set out in the Environmental Statement refers to the compilation of a log of shadow flicker events to be made by affected parties following verification by representatives from the operator. If shadow flicker is then recorded as a nuisance, a strategy would then be agreed at the expense of the operator which could include measures such as installing blinds at affected properties or for a device to be fitted to the turbine for it to automatically shut down when the conditions for shadow flicker occur. It is therefore considered that criteria d of Policy EWP4 has been met.

7.74 Television Reception

Wind turbines, including micro turbines, can also interfere with telecommunications (i.e. TV, radio and phone signals) by blocking or deflecting those requiring line of sight or by the scattering of transmission signals. Scattering of signals mainly affects domestic TV (both analogue and to a lesser extent digital TV) and radio broadcasts. Wind turbines can affect domestic television reception up to 5km from the turbines.

7.75 It is often possible to mitigate impacts by careful siting of individual turbines within a site so that turbine blades avoid a buffer zone, typically 100m either side of the signal path. Failing this, it may be necessary for the developer to pay for a signal to be re-routed around the wind turbine(s). Where site investigations reveal a likely impact on domestic radio or TV reception, various solutions are possible including upgrading of domestic aerials or delivery of the signal by other means, for example by cable. Analogue television is now not in use so there unlikely to be an impact on television reception however there could be an impact on analogue radio transmissions.

7.76 The Environmental Statement considers the impact on television reception, radio reception and other sources of electromagnetic interference. Consultation has been undertaken with the relevant

operators. It is considered that a suitably worded condition can deal with the potential for any such impacts from electromagnetic interference to be mitigated. It is therefore considered that criteria e of Policy EWP4 has been met.

7.77 Other Matters

The site is crossed by a decommissioned watermain. This does not affect the siting of the turbine however as it runs to the west of the application site.

7.78 In terms of the comments by Network Rail the distance required is 81 metres from the railway line. The turbine location is 170 metres from the railway line and therefore the scheme meets with Network Rail's requirements for separation.

**8.00 CONCLUSION**

8.01 The proposed wind turbine is to provide electricity for an existing business in an established industrial area. This concept is supported in principle. The application has been amended to take account of the issues previously raised and the westerly turbine has been removed from the scheme.

8.02 The landscape impacts of the turbine have been assessed and it is considered although there will be some adverse visual impacts as a result of the siting of a turbine of this scale, it can generally be accommodated within this landscape and any adverse impacts are balanced against the benefits of renewable energy generation and the wider social, environmental and economic benefits.

8.03 It is considered that the other matters set out in policy EWP4 have been addressed. The issues surrounding aviation safeguarding and potential impacts on radar can be dealt with through a suitably worded planning condition as suggested by the aerodrome. Ecological matters can also be dealt with by a suitable condition.

8.04 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.

8.05 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.

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

8.07 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.

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

Planning Application & Supporting Documents  
National & Local Planning Policy  
Responses to Consultation  
Responses to Publicity

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