

FLINTSHIRE COUNTY COUNCIL

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

DATE: **WEDNESDAY, 6 NOVEMBER 2013**

REPORT BY: **HEAD OF PLANNING**

SUBJECT: **049300 - FULL APPLICATION - ERECTION OF 2 NO. WIND TURBINES (110 M TO TIP) AND ANCILLARY INFRASTRUCTURE AND ACCESS AT KINGSPAN LIMITED, 2-4 GREENFIELD BUSINESS PARK 2, GREENFIELD**

APPLICATION NUMBER: **049300**

APPLICANT: **KINGSPAN LIMITED**

SITE: **2-4 GREENFIELD BUSINESS PARK 2, GREENFIELD, HOLYWELL.**

APPLICATION VALID DATE: **19TH DECEMBER 2011**

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

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

REASON FOR COMMITTEE: **MEMBER REQUEST AND DUE TO SIZE AND SCLAE OF DEVELOPMENT**

SITE VISIT: **YES**

1.00 SUMMARY

- 1.01 This full application seeks planning permission for the erection of two, 2.5 mw, 110 m to tip high, wind turbines and ancillary infrastructure at Kingspan Ltd on the Greenfield Business Park 2, Greenfield. The main issues are the principle of development in planning policy terms, the impact upon the setting of scheduled ancient monuments, listed buildings and conservation areas, the effects upon the amenities of adjoining residents, the highway implications, the effects upon wildlife and the adjacent bridleway together with the effects upon the safety of

aircraft.

- 1.02 Whilst Kingspan's continued move to renewable energy is to be welcomed and their presence in the Flintshire economy recognised, it is considered, however, that the proposals will have a significant detrimental impact upon the landscape, the setting of the Scheduled Ancient Monument and listed building of Basingwerk Abbey.

2.00 RECOMMENDATION: TO REFUSE PLANNING PERMISSION FOR THE FOLLOWING REASONS

- 2.01
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.

3.00 CONSULTATIONS

3.01 Local Member :

Councillor Mrs R. Dolphin

Requests Committee determination as:-

- Received many complaints as to size of application making it a contentious issue.
- Application is close to Basingwerk Abbey which is listed, development will have impact of this heritage site.

Requests site visit for:-

- Members to see the visual impact it would have on surrounding area, i.e., Dee Estuary, cycleway, SSSI etc.
- Closeness to properties and its detrimental impact on them in terms of noise, flicker and tv transmissions.

Preliminary views are:-

- Detrimental impact on coastal path/cycleway.
- Noise impact on residential amenity in Greenfield are serious concerns.
- Height of proposals are too much for the area.

Councillor J. Johnson

No response received to date.

Holywell Town Council

Object on the following grounds:-

- Impact on residential amenity by over dominance and noise.
- Impact on character and appearance of area through adverse visual intensity.
- Impact of construction on highway and general public health and safety, linked to flashes/flickers from large turbines blades and also damage that may occur to blades through wear and tear and bad weather.
- Impact to the detriment of community facilities including issues of Greenfield Dock and recently opened coastal path.
- Impact of effective search and rescue and communication functions of emergency services and support units (Police and Air Ambulance) and the RNLI operating in Dee Estuary.
- Absence of any independent assessment of proposal and its inland location.

Head of Assets and Transportation

Recommends that any permission includes suggested conditions.

Head of Public Protection

No adverse comments in terms of noise and shadow flicker. Suggests certain planning conditions upon any consent granted.

Countryside Council for Wales

Would object to the issue of consent for this proposal before completion of a satisfactory assessment under the Conservation of Habitats & Species Regulations (2010).

North Wales Wildlife Trust

No response received to date.

Wirral Council (Planning)

No response received to date.

Environmental Directorate (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. There could be permissive use by horse riders.

Network Rail

Has the following comments to make on the application.

- Wish to see wind turbine site so that the lateral distance from the railway to foot of mast is greater than height of mast and length of propeller blade plus 3 m.
- Request applicant makes contact with Network Rail Abnormal Loads Team to inform them of route of the wind turbine and blades to site. May be structures which are weight restricted and could be damaged.
- Should contact Network Rail Asset Protection Team to determine if proposed wind turbines represent any potential for shadow flicker affecting the ability of train drivers to view signals without restriction. Also the potential for any ground vibration.
- Must ensure all cabling is routed so that no access to the operational railway or land is required under the railway and land for cabling. If require access under Network Rail land for cabling, they would object.

Liverpool John Lennon Airport

Object to the proposals as the safe operation of the airport would be seriously compromised. The rotation of the wind turbine blades would be detected by the airports primary radar creating clutter. Effect can be highly distracting for a controller and cause confusion.

North Wales Police – Air Operations Unit

Concerned regarding potential of two significant obstructions along our access route in poorer weather. Conclude that the location is known to use and are able to circumnavigate them (by flying over the river). Requests turbines should display suggested aviation obstruction lights during hours of darkness and periods of poor light and visibility.

Civil Aviation Authority

Has no responsibilities for safeguarding sites other than its own property, and a consultation by a Council is taken as a request for clarification of procedural matters.

Defence Infrastructure Organisation

MOD has no objection to the proposal. MOD requests the turbines are fitted with 25 Candela omni-directional red lighting or infrared lighting with an optimised flash pattern of 60 flashes per minute of 200 ms to 500 ms duration at the highest practicable point.

National Air Traffic Services

No safeguarding objection to the proposal.

RSPB

Initially objected to the southern proposed turbine and had concerns related to the northern proposed turbine. Reasons for concerns were due to the nature conservation importance of the Dee Estuary, ecological impacts of the proposal, relevance to European and UK

legislation and further information and necessary mitigation measures.

Upon receipt of further information which has attempted to address main concerns, would be willing to withdraw its objection, if appropriate mitigation measures being provided. These being post construction monitoring of this roost and others, financial contribution to safeguarding wader roosts around the Dee Estuary and construction of a fence adjacent to the footpath/cycleway and oyster catcher roost to help exclude pedestrians and dog walkers from the foreshore.

CADW

It is probable that the north turbine will have some degree of visual impact upon views from all of the scheduled ancient monuments of Basingwerk Abbey, Holywell Castle, Wats Dyke: Section NE of Meadow Mills, St. Winefride's Chapel and Greenfield Valley Mills. This impact is to be mitigated to some extent by a variety of factors as outlined, with the exception of that of the northerly turbine 1 upon eastwards views of Basingwerk Abbey.

CPRW

Object on the following grounds:-

- The development due to their size will be obtrusive and completely dominate the surrounding landscape due to their size.
- Will adversely affect a significant level of both the residential and visual amenities of this urban location.
- Impact upon amenities of adjoining residents in terms of noise and shadow flicker.
- Turbines will interfere with televisions.
- Will change the visual amenity and character of the area that will be unable to be mitigated against not only impact upon residents but visitors and persons participating in recreational activities.
- Turbines and their moving features make them a sensitive issue when viewed from locations such as Basingwerk Abbey, a Scheduled Historical Monument, Greenfield Dock and the All Wales Coastal Path.
- Detrimental impact upon ecology of the area and the estuary in particular.
- Concern is expressed over safety of the turbines in relation to the proximity of their locations to the railway, roads and All Wales Coastal Path.

- Questions amount of electricity actually generated.
- Will set a precedent for similar large scale on shore electrical wind generating technology along Dee Estuary if planning consent is granted.

Airbus

Object – based on the unacceptable impact on air traffic safety and air traffic procedures. Proposed development is within safeguarded area of Hawarden Aerodrome for windfarms and its location is in direct line of sight from the Air Traffic Control's radar tower. Will produce a permanent echo return in the area cluttering the radar picture and impacting on Air Traffic Control safe operation and control of aircraft.

Ramblers Association

Size and scale of the proposals inappropriate for this location. Would be sited close to the All Wales Coastal Path and would have a detrimental effect on the enjoyment of those using what is expected to be a long distance walk of international standing. Kingspan's green initiatives and its desire to harness natural resources may be that small wind turbines would be more acceptable.

Clwydian Range AONB Joint Advisory Committee

Large scale development will have significant impacts over a wide area. Although turbines will be visible in some views from and into the AONB, having regard to local topography and distance from AONB, JAC does not consider there will be a significant impact on the Clwydian Range. The limited impact the development would have on the AONB could be mitigated further, if size of the proposed turbines were reduced.

Natural Resources Wales

Believe that the installation and operation of turbines as described in the Environmental Statement is unlikely to significantly affect the features of the European site concerned, namely, the Dee Estuary Special Protection Area (SPA), or those of the Dee Estuary Ramsar site.

Wales & West Utilities

Has gas pipes within the area. Applicant to be advised of safe digging practices used to verify and establish actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used.

SP Energy Networks

Have plant and apparatus within the area and developer should be advised of need to take appropriate steps to avoid any potential danger that may arise during their works in relation to electrical apparatus.

4.00 PUBLICITY

4.01 Press Notice, Site Notice, Neighbour Notification

50 letters of objection and 2 petitions with 25 signatures upon it received. The grounds of objection being:-

- Unconvinced that the relatively small amount of energy generated by turbines which is less than 30% of the installed capacity makes them a cost-effective option.
- Will be a visually significant alien intrusion into the panoramic sweep of the Dee Estuary as seen from the Wirral Coast and to an extent from the Welsh Coast. Visual impact from the Clwydian Hills and would affect the setting of Basingwerk Abbey, a scheduled ancient monument together with other local recreational areas.
- If application is approved – effectively on the Dee Estuary shore, it will set an unfortunate precedent, which would result in further applications, for even larger turbines, given the lucrative subsidies available to wind farm operators.
- Adverse impact on the Dee Estuary SSSI/SAC/RAMSAR Site.
- Impact upon tourism in Flintshire.
- Effect on local population with sound, wind, loss of light and dust.
- Blight on area.
- Loss of property values.
- Would not encourage companies to consider locating to the area with such a monstrosity on its doorstep.
- Will detrimentally affect farm animals.
- Wind turbine construction can disrupt the hydrology of the area and contaminate water supplies.
- Health concerns due to the low noise generated.
- Light pollution – strobe effect when sun is behind rotating blades can cause health problems.
- TV and radio broadcast will be interfered with.
- Workers at Kingspan will be affected in terms of their health.
- All further alternatives for cheaper electricity have not been fully researched e.g, power from the Dee and water through the Greenfield Valley.
- Flickering could affect the safety of motorists with potential for serious accidents – walkers and trains.
- Wind power most expensive form of electricity, it survives on direct and indirect subsidies. Cost to taxpayers is not good value because wind energy cannot provide firm generating capacity nor can it make a significant contribution in reducing greenhouse gas emissions.
- Impact of turbines on autistic people.
- Because of their height they would be a hazard to air sea rescue which use the railway tracks to guide them.
- Could mount solar panels on their walls of the factory. Could purchase more land and build a solar panel farm which may meet all their energy needs. Could use an underground heat pump or

build a power station using food or farm waste. Could purchase or build turbines further up the coast at the sea wind farm as this would meet all their energy costs.

- Safety aspects to ice build up on the blades due to close proximity to a footpath and secondary road.
- Potential for ground vibration.
- Impacts on approaches to Liverpool and Hawarden Airport. Impacts on emergency services and military flight paths and helicopters.
- Contamination assessment of the land is appropriate as land has been previously used by a chemical factory.
- Kingspan should have included proposals for screening.
- WAG targets are being used as a “red herring”. Turbines will simply benefit Kingspan alone and have a minimal impact on WAG targets.

Also Mark Isherwood AM

Concerns raised as follows:-

- Impact on residential amenity (e.g., hours of use, loss of privacy loss of light, over dominance, noise, traffic).
- Impact on character and appearance of area (design, appearance and intensity).
- Impact on community facilities.

Planning policies and proposals, or Government planning advice

5.00 SITE HISTORY

5.01 Various, but of most relevance are:-

050941

2 No. extensions to existing production building – granted 13th August 2013.

048323

Retention of 50 m high anemometry mast for a temporary period of 3 years – granted 19th May 2011.

048361

Installation of photovoltaic roof mounted power plant and associated electrical engineering works (retrospective) – granted 14th April 2011.

044135

Erection of a met mast – granted 7th February 2008.

044134

Erection of a wind turbine – withdrawn 21st December 2007.

041540

Erection of a small scale wind turbine to supply electricity to Kingspan

offices – granted 11th September 2006.

038621

Extension to existing office to form training and visitor centre with associated car parking – granted 2nd September 2005.

6.00 PLANNING POLICIES

6.01 Flintshire Unitary Development Plan

STR1 – New Development.

STR3 – Employment.

STR6 – Tourism.

STR7 – Natural Environment.

STR8 – Built Environment.

STR10 – Resources.

STR11 – Sport, Leisure & Recreation.

GEN1 – General Requirements for Development.

GEN5 – Environmental Assessment.

D1 – Design Quality, Location & Layout.

D2 – Design.

D3 – Landscaping.

D4 – Outdoor Lighting.

L1 – Landscape Character.

L2 – Area of Outstanding Natural Beauty.

WB1 – Species Protection.

WB2 – Sites of International Importance.

WB3 – Statutory Sites of National Importance.

HE2 – Development Affecting Listed Buildings & Their Settings.

HE6 – Scheduled Ancient Monuments & Other Nationally Important Archaeological Sites.

AC12 – Airport Safeguarding Zone.

AC13 – Access & Traffic Impact.

EM3 – Development Zones & Principal Employment Areas.

SR8 – The Dee Estuary Corridor.

T10 – Greenfield Valley.

EWP1 – Sustainable Energy Generation.

EWP4 – Wind Turbine Generation.

EWP12 – Pollution.

EWP13 – Nuisance.

EWP17 – Flood Risk.

National Policy

Planning Policy Wales Edition 5, November 2012.

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) 12: Design (2009).

Technical Advice Note (TAN) 13: Tourism (1997).
Technical Advice Note (TAN) 14: Coastal Planning (1998).
Technical Advice Note (TAN) 15: Development & Flood Risk (2004).
Technical Advice Note (TAN) 18: Transport (2007).

In terms of the National Policy context, it is clear that there is a positive approach taken by the Welsh Government to renewable energy having regard to the issue of global warming and climate change. The clear message of both Planning Policy Wales and the Flintshire Unitary Development Plan is that renewable energy proposals should be permitted unless there are unacceptable impacts on landscape, nature conservation and amenity etc.

7.00 PLANNING APPRAISAL

7.01 Site Description & Proposals

The site comprises the existing Kingspan factory with the proposals sited on an area of land that is currently used as a lorry park in the north of the site, and storage for pallets at the end of the factory in the south of the site. Kingspan occupies an area of approximately 15 hectares and is used for storage, lorry parking and the construction of insulated panels. The coastal path, adjacent to the Dee Estuary marks the eastern edge of the boundary, the railway line forming its western boundary, the access road to the Greenfield Recycling Centre to the south and the Greenfield Docks upon the northern boundary.

7.02 Kingspan is located upon the eastern edge of Greenfield Business Park. This in turn is located approximately 2.48 km to the north east of Holywell and approximately 5.8 km north of Flint on flat low lying land.

7.03 With it forming part of the Greenfield Business Park, its immediate neighbours are also industrial businesses. The nearest residential dwellings to the northern turbine is approximately 357 m away with the nearest residential dwelling to the southern turbine is located approximately 427 m away.

7.04 The proposed scheme consists of two 2.5 MW wind turbines with a dedicated transformer, associated access track and infrastructure. The turbines will have a tip height of up to 110 m, with a 65 m tower and 45 m blades. The candidate turbine for this proposal is a Nordex N90.

7.05 The turbine towers will be a tapered tubular steel construction and the blades constructed from fibreglass with lightning protection, protecting the entire turbine. The finish of the turbines would be of low reflectivity, semi-matt white to mid-grey hue.

7.06 The ancillary works involve the creation of crane hardstandings, temporary construction compound, electrical enclosures, switchgear

house, grid connectors, new access track and access track upgrades. The wind energy scheme is designed to be monitored remotely, and would have an installed capacity of up to 5 MW. The scheme is expected to have an operational life of approximately 25 years. The wind turbines will provide approximately 60% of Kingspan's energy demand. When the wind turbines produce more energy than is required by Kingspan, the excess electricity would be exported to the National Grid. The amount of energy supplied to Kingspan and/or the grid will change dependant on demand from Kingspan and the wind resource.

7.07 The addition of the wind turbines to provide a source of renewable energy would help Kingspan in the long term by helping to reduce their carbon footprint, maintaining green credentials with major existing customers and attracting new ones. Reducing Kingspan's energy costs nationally would lead to some reduction in CO² emissions. The UK has a target of cutting its emissions by 80% by 2050.

7.08 Issues

The main uses to be considered within the determination of this planning application are the principle of development in planning policy terms, the effects upon the visual appearance and character of the landscape, the impact upon the setting of Scheduled Ancient Monuments, listed buildings and conservation areas, the effects upon the amenities of adjoining residents in terms of noise, obtrusiveness and loss of light etc, the highway implications, the effects upon wildlife, effects upon the safe and efficient operation of airports together with the effects upon the economy.

7.09 Principle of Development

In terms of national guidance, and the principle of the developments in planning policy terms, the most recent version of Planning Policy Wales (PPW) has been drafted in light of the Welsh Government's Energy Policy Statement (2010) which sets out the sustainable renewable energy potential for a variety of different energy technologies. The statement is clear that planning policy at all levels should facilitate the delivery of both the Statement and the UK/European targets on renewable energy.

7.10 PPW advises that the Assembly Government's aim is to secure an appropriate mix of energy provision for Wales, whilst avoiding, and where possible minimising environmental, social and economic impacts. This will be achieved through action on energy efficiently and strengthening renewable energy production.

7.11 In considering planning applications for renewable energy schemes, the Welsh Government 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 minimise impacts on local communities, to safeguard quality of life for existing and future generations.
- To avoid, mitigate or compensate identified adverse impacts’.

7.12 The Welsh Government provides more detailed guidance in TAN8 – Planning for Renewable Energy. It states that ‘the potential for the development of wind power within urban/industrial brownfield sites is so far largely untapped. A number of urban/industrial sites have been identified as having some potential based on strategic assessment in a report proposed for the Assembly Government There may be further opportunities for the development of wind farm or other renewable energy schemes or urban/industrial brownfield sites up to 15 MW within Wales and these should be encouraged’.

7.13 Welsh Government advises also that most areas outside strategic search areas 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 wind turbines are spread across the whole of a County’.

7.14 In terms of Local Planning Policy, the Flintshire Unitary Development Plan strategy identifies that sustainable development is a key theme running through 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’.

7.15 Policy STR10 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’.

7.16 Turning to the plan’s detailed policies, Policy EWP1 sets the scene by adopting a presumption in favour of renewable energy schemes subject to them meeting the other relevant requirements of the plan. The detailed guidance on wind turbine development is set out in Policy EWP4, which requires proposals to meet specific criteria e.g., not have a significant adverse impact on landscape etc.

- 7.17 In conclusion, 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, residential amenity etc. Therefore, it is considered that in principle, the proposals are acceptable in planning policy terms.
- 7.18 Landscape Character & Appearance
Policy L1 of the Flintshire Unitary Development Plan states that new development must be designed to maintain or enhance the character and appearance of the landscape.
- 7.19 The proposed development of the turbines, each with substantial foundations, ancillary buildings, hard surfacing and fencing within the Kingspan complex would, it is considered, cause little physical damage to the landscape as this is already substantially a hard surfaced brownfield site.
- 7.20 The development would however, be considered to alter the character of the site by the introduction of the two tall structures which would be visible from well outside the Business Park. The two turbines would be very significant, introducing tall vertical elements into the landscape on the edge of the Dee Estuary and the turning blades of the turbines would be visible well above the general level of coastal developments.
- 7.21 The Landscape and Visual Assessment undertaken within the submitted Environmental Impact Assessment (EIA) describes in detail the landscape character of the North Flintshire and Wirral coastal areas on either side of the Dee Estuary. Within the Flintshire Landscape Strategy (1996), Greenfield falls within the category of the 'Coastal and Estuarine Flats' and where the land rises to the south west it becomes the 'Dee Coastal Slopes'.
- 7.22 It is freely recognised in the EIA that the turbines would significantly affect the character of the landscape, especially where the turbines would be widely visible against the sky. The character of the landscape would be altered to the extent that it is suggested that the existing landscape character for the area is changed to 'Coastal and Estuarine Flats with Turbines' and 'Dee Coastal Slopes with Turbines'. The visual impact of the 110 m turbines would be extensive due to the great height of the structures. They would inevitably stand out due to the light colour and vertical shape which is uncharacteristic of most other features in the landscape. In addition the constant movement of the turbine blades, when in operation, would draw the eye thereby compounding the visual prominence.
- 7.23 In Landscape and Visual Assessment, the views from residential

properties, footpaths and outdoor recreational facilities, where people are likely to take an interest in the view, are rated as highly sensitive or of greater significance than views from other areas such as roads and industrial areas.

- 7.24 In the communities close to the site, the turbines would be seen to varying degrees rising up above the industrial buildings of the Greenfield Business Park and the tops of turbines would be seen from sections of the A548. Further away from the site, on the rising ground to the south west, the turbines would be increasingly visible. There would be significant views of the turbines from the residential areas of Holywell and the scattered communities situated on the coastal hills overlooking the Dee Estuary.
- 7.25 The EIA, indicates that the erection of the turbines would cause a significant change to the view from dwellings at Greenfield, Bryn Celyn, Whelstone and Pen y Maes situated 1-2 km away. There would also be significant change in the view from residential dwellings overlooking the site at Bagillt, 1.5 – 4.4 km away.
- 7.26 There would also be views of the turbines or parts of the moving blades from roads and housing on the hillside further afield such as from certain dwellings to the south east at Pentre Halkyn and Windmill.
- 7.27 The turbines would be seen standing out against the Dee Estuary from the large area of Open Access Land on rising ground to the west and south west of Holywell at Halkyn Mountain and close to Brynford. The outline of the turbines would be seen in some instances with the more distant ranks of coastal turbines beyond, causing a small cumulative effect with disturbing near and distant movement in the landscape. There would be a significant view of the turbines from sections of the National Cycle Route 5 near Brynford.
- 7.28 Due to the great height of the wind turbines they would be seen across the Dee Estuary from the Wirral. The wide, open landscape of the Dee Estuary with the Welsh coastal hills beyond is a very important feature viewed from many places on the Wirral. Buildings and other structures on the Welsh coast generally blend into the landscape. However, the proposed turbines would clearly stand out as two, intrusive, light coloured, vertical structures rising up from the water's edge, not breaking the skyline, but rising two thirds of the way up the coastal hills behind.
- 7.29 The turbines would be clearly visible from Heswall Fields and Parkgate and from many dwellings which have views across the Dee Estuary. From Heswall a number of dwellings would have unrestricted views across the estuary towards the proposals and the EIA indicates that the change to the view would be significant.

- 7.30 In addition the EIA indicates that there would be a significant change to the view from a number of recreational and leisure facilities close to the Dee Estuary including the Wirral Way, the Wirral Country Park, National Trust sites and golf courses. Photomontage visualisations from Heswall Fields public open space and from the summit of Thurstaston Hill opposite Greenfield give an indication of the appearance of the turbines in the Dee Estuary landscape. There are also caravan sites, footpaths and a yacht club where views of the turbines across the Dee Estuary would have a detrimental impact on the view.
- 7.31 To conclude, given the above, it is considered that the proposed turbines would be significantly intrusive in the landscape over a wide area and would change the character of the landscape to its visual detriment and therefore contrary to Policy L1 of the Flintshire Unitary Development Plan.
- 7.33 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.
- 7.34 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.
- 7.35 Basingwerk Abbey
It is considered that both turbines will be visible as a major feature in the skyline to the east of the Abbey. The setting of the Abbey when viewed from this direction is 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. It is considered that the prominent positions of the moving turbines in one of the few aspects which preserve any semblance of a pre-modern landscape will have a significant adverse impact upon the setting of Basingwerk Abbey.
- 7.36 Holywell Castle
It is possible that one or both of the turbines may be visible from the elevated position of this monument, albeit at a distance of over 1 km. It is considered that whilst the turbines are likely to have some impact upon the setting of the monument, it is likely to be limited by distance, intervening topography and the woods.

- 7.37 **Wats Dyke: Section NE of Meadow Mills**
The elevated position of this length of monument would dictate that one or both of the turbines are likely to be visible from various points along its length, although it is considered that the well-established woodland through which it runs limits those views.
- 7.38 **St. Winefride's Chapel**
It is considered that the tip of the blades of the northern turbine will be marginally visible when at the apex of their movement but the intervening topography and vegetation are likely to screen St. Winefride's from such views.
- 7.39 **Greenfield Valley Mills**
The northern turbine is more likely to be visible from the central Meadow Mills and the most northerly Abbey Mills, both located at a point where the valley begins to broaden out and falls to the coastal plain. There may be some impact upon the settings of both monuments, although this is likely to be partially, if not wholly mitigated by the visual barrier formed by the eastern side of the valley, vegetation and in the case of lower laying Abbey Mills, modern development.
- 7.40 To conclude, it is considered that the northern turbine will have some degree of visual impact upon views from all of the mentioned monuments. This impact is to be mitigated to some extent by a variety of factors. However, it is considered that both turbines will have a detrimental impact upon the setting of Basingwerk Abbey.
- 7.41 **Setting of Listed Buildings & Conservation Areas**
The EIA states a major impact on only one listed building, the station at Holywell Junction (Grade II*). However, it is considered, the impact on areas which are quiet and set in attractive landscapes and are not associated with movement are more likely to suffer impacts.
- 7.42 It is considered that the relatively close proximity of both turbines as a backdrop to views from within Basingwerk Abbey which is listed Grade I would be both significant and harmful. Its character is essentially contemplative and peaceful, deriving from its original purpose as an Abbey and place of religious observation and worship. The moving blades and the large scale of the turbines would be an unavoidable and highly discordant backdrop to the Abbey which is considered harmful to the character of the setting of the listed building. The presence of the turbines would make it very difficult to ignore our technological age and slip into quieter imaginings of a gentler slower paced time.
- 7.43 The revised report submitted by the applicant's agent states that the only possible detrimental impact from a Conservation Area is that of Gadlys. However, given that neither of the proposed turbines can be seen from this area and group of listed buildings, it is considered that

they will not detrimentally affect the setting of this Conservation Area or group of listed buildings.

7.44 Residential Amenity

In terms of noise, the assessment submitted by the Applicant's Agent shows that the wind speed dependent noise levels predicted at the groups of properties nearest the proposed wind turbines are comparable with the existing background levels at the same wind speed. They state that the turbine type is able to achieve the ETSU recommended noise limits. Total noise from all the turbines at all houses will remain within a 'flat' limit of 35 dB or 5dB above the background level, whichever is the greater (in terms of LA90). A severe night time noise limit level will also be met.

7.45 The Council's Environmental Health Department have been consulted upon the application, in relation to noise, who confirm that the two turbines would be ETSU-R-97 compliant and therefore would not significantly affect the amenity of local residents due to excessive noise. The turbines will not produce any significant mechanical noise and there is a significant separation distance between the turbine locations and the nearest noise sensitive properties. In the event of any possible noise disturbance there is a preference for a lower noise limit of 32dB to be placed upon any planning permission granted, as a condition. Other planning conditions are suggested e.g., to encompass normal and nighttime operation under ETSU-R-97, measures for the investigation of reported noise nuisance and the means of compliance/control of the nuisance can be shown to be occurring and measures to protect amenity during construction etc.

7.46 The Environmental Health Department consider also that there will be no significant detrimental impact upon the amenities of the nearby residents in terms of shadow flicker as any of the potential effects are likely only to occur in the early morning during the summer months and due to the separation distance of the turbines from the properties. Even then, each property can only be affected for a relatively short time. However, it is not possible to prove an adverse effect by calculation alone as there are a great deal of other factors that can affect the incidence of shadow flicker e.g., cloud cover on the day, wind direction, incidence/angle of rotor blades, angle and size of windows, residents daily routine etc. The incidence of shadow flicker can easily be established using computer programming so; it could easily be controlled in worst case/nuisance conditions by the use of computer controlled systems. It is recommended therefore, that an agreed investigation procedure could be developed and conditioned. In the worst case there may be scope to control each individual turbine so that they could be stopped at time when nuisance is being caused by the passage of the sun.

7.47 To conclude, due to the above it is considered that there will not be a significant detrimental impact upon residential amenity in terms of

noise and shadow flicker. Also due to the distance away of the properties from the proposals (400 m), it is considered that there will not be a significant detrimental impact in terms of obtrusiveness either.

7.48 Footpaths

Public Footpath No. 39 abuts the site but no diversion order or temporary closure order is required to facilitate the development. The footpath is therefore physically unaffected by the development. The comments from the Ramblers Association are noted. However, it is considered that due to the height, distance away from the turbines to the footpath, low noise and shadow flicker generated from them, that they will not have a significant detrimental impact upon the walkers enjoyment of their activity along this small section of the All Wales Coastal Path.

7.49 Highways

An initial assessment of the access route was undertaken by the applicant's agent from suitable points to the site to ensure the local highway network could accommodate the large vehicles and vehicle movements associated with the delivery of the turbine components.

7.50 The assessment shows that the public roads are generally of good standard and would be suitable, subject to localised minor highway movements, to safely accommodate the large loads associated with the delivery of the turbine components during the construction period.

7.51 A swept path analysis has been submitted to determine if the junctions along the access route could accommodate the delivery of the turbine blades and towers which are the largest loads to be delivered to the site, and if any road improvements would be required.

7.52 The routes from the swept path analysis indicate that both the blades and tower transporters can be accommodated by the access route, if selected minor highway improvements and minor works are conducted.

7.53 This assessment and swept path analysis have been considered together with the highway improvements by our highways department who conclude that they are acceptable, subject to conditions placed upon any planning permission granted.

7.54 Wildlife

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 (2010). 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.
- 7.56 The two turbines are in close proximity to the designated site: 250 m from the foreshore and the southern turbine is within 300 m of the designated SPA/Ramsar feature, oyster-catcher high tide roost.
- 7.57 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 300 m from the roost.
- 7.58 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.
- 7.59 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.
- 7.60 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.
- 7.61 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.
- 7.62 To conclude, it is considered that:-
- Construction effects can be avoided through timing of works and pollution controls.
 - From the supplementary information, 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 oystercatcher, monitoring during the construction and operation of the turbines will provide more robust information to demonstrate this and highlight changes.
 - Enhancement works mentioned 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.

7.63 Aircraft Safety

Various organisations have been consulted upon the application to assess the developments potential to create a physical obstruction to air traffic movements, and cause interference to air traffic control and air defence radar installations. Both Airbus and Liverpool John Lennon Airport object to the proposals based on the unacceptable impact on air traffic safety and air traffic procedures.

7.64 Airbus advise that the proposed development is within the safeguarded area of Hawarden Aerodrome for windfarms (18.4 km) and their location is in direct line of sight from the air traffic control's radar tower. This will be producing a significant permanent echo return in the area, cluttering the radar picture and impacting on air traffic control safe separation and control of aircraft. Liverpool John Lennon Airport (LJLA) also confirm that the rotation of the wind turbine blades with this development would be detected by the airport's primary radar, creating clutter; e.g., in the form of twinkling or the formation of tracks on screen. This effect can be highly distracting for a controller and can cause confusion when trying to distinguish between rear aircraft and false targets, especially as the proposed site lies under a radar vectoring area for aircraft turning onto the final approach of LJLA's 09 runway.

7.65 The applicant's agent acknowledges that the scheme will impact upon the radar and that mitigation will be required. They argue that mitigation options are available, in particular the Thruput option. However, LJLA advise that this option is still being trialled and no work has been undertaken to develop a safety case to be considered by the CAA, as a result the scheme is still not proven. Therefore, the airports argue Thruput at this moment in time cannot be classed as a viable robust mitigation that could be implemented.

7.66 The applicant's agent suggests that a Grampian style condition is put on any grant of planning permission stating that development does not commence until a method statement for mitigation is agreed with the Local Planning Authority and the Airports. It is considered that both would want to agree to suitable and robust mitigation measures that have been agreed by all parties prior to planning permission being granted to ensure that both Airbus and LJLA's concerns can actually be mitigated against. The Head of Legal & Democratic Services advises that it would be appropriate to put such a condition upon any planning permission granted.

7.68 Socio Economic/Environmental Benefits

The scheme is designed to supply the site with energy from a renewable source and based on a 5 MW scheme, the electricity reduced from the turbines would provide 50% of Kingspan's electricity

requirements. Based upon a 28% capacity factor, the scheme would produce electricity equivalent to that consumed by 2,955 homes. Also 7,371 tonnes of carbon dioxide per annum would be saved by the implementation of the scheme.

- 7.69 It is recognised that the Holywell site is Kingspan's Divisional Headquarters, managing operations throughout the UK, Ireland, France, Holland, Belgium, France, Scandinavia, Middle East, Singapore, Australia and New Zealand. As a result the company is considered an important part of the economy to the area, both as a major employer, directly employing around 350 staff, and through local sourcing of goods and services such as haulage, catering and office supplies.
- 7.70 If granted planning permission, it is considered that the benefits will be felt throughout the local area and beyond. The scheme would help to protect economic activity in the area which in turn strengthens the local economy. It is reported that for every megawatt of wind energy installed generates £700,000 worth of value for the UK, of which £100,000 stays in local area.

8.00 CONCLUSION

- 8.01 Whilst Kingspan's approach to the issue of global warming and climate change by the proposals is to be welcomed and their impact upon the local economy recognised, it is considered, however, that these factors do not outweigh the fact that the developments will have a significant detrimental impact upon the visual appearance and character of the landscape and the setting of the scheduled ancient monument and listed building of Basingwerk Abbey.
- 8.02 In considering this planning application 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.

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