Communities Directorate

5 March 2015

Adur Planning Committee

Date: **Monday 16 March 2015**

Time: **7:00pm**

Venue: **Council Chamber, Civic Centre, Ham Road, Shoreham-by-Sea**

Committee Membership: Councillors Brian Boggis (Chairman), Peter Metcalfe (Vice-Chairman), Carol Albury, Brian Coomber, David Donaldson, Emma Evans, Geoff Patmore and Ben Stride

NOTE:
Anyone wishing to speak at this meeting on a planning application before the Committee should register by telephone (01903 221006) or e-mail heather.kingston@adur-worthing.gov.uk **before noon on Friday 13 March 2015.**

Agenda

PART A

1. Declarations of Interest / Substitute Members

Members and officers must declare any disclosable pecuniary interests in relation to any business on the agenda. Declarations should also be made at any stage such an interest becomes apparent during the meeting.

If in doubt contact the Legal or Democratic Services representative for this meeting.

Members and Officers may seek advice upon any relevant interest from the Monitoring Officer prior to the meeting.

Any substitute members should declare their substitution.

2. Confirmation of Minutes

To approve the minutes of the Planning Committee held on 16 February 2015 which have been emailed to Members.

3. Items Raised Under Urgency Provisions

To consider any items the Chair of the meeting considers urgent.

4. Planning Applications

Reports by the Director for Customer Services, attached as Item 4.

5. Public Question Time

To receive any questions from Members of the public in accordance with Council Procedure Rule 11.2

(**Note:** Public Question Time will last for a maximum of 30 minutes)

PART B – Not for Publication – Exempt Information Reports

None

For Democratic Services enquiries relating to this meeting please contact:

Heather Kingston
Democratic Services Officer
01903 221006
heather.kingston@adur-worthing.gov.uk

For Legal Services enquiries relating to this meeting please contact:

Carmel Briody
Senior Solicitor
01903 221124
carmel.briody@adur-worthing.gov.uk

Duration of the Meeting: Four hours after the commencement of the meeting the Chairperson will require the meeting to consider if it wishes to continue. A vote will be taken and a simple majority in favour will be necessary for the meeting to continue.

Planning Committee
16 March 2015
Agenda Item 4

Ward: ALL

Key Decision: ~~Yes~~ / No

Report by the Director for Economy

Planning Applications

1
Application Number: AWDM/1702/14 **Recommendation – Approve**

Site: **Pump House C E G B Basin Road South Southwick West Sussex**

Proposal: **Construction of two 100kw wind turbines, 35.4m from base to blade tip on the southern spur of land forming the eastern arm and breakwater of Shoreham Harbour. Application accompanied by an Environmental Impact Assessment.**

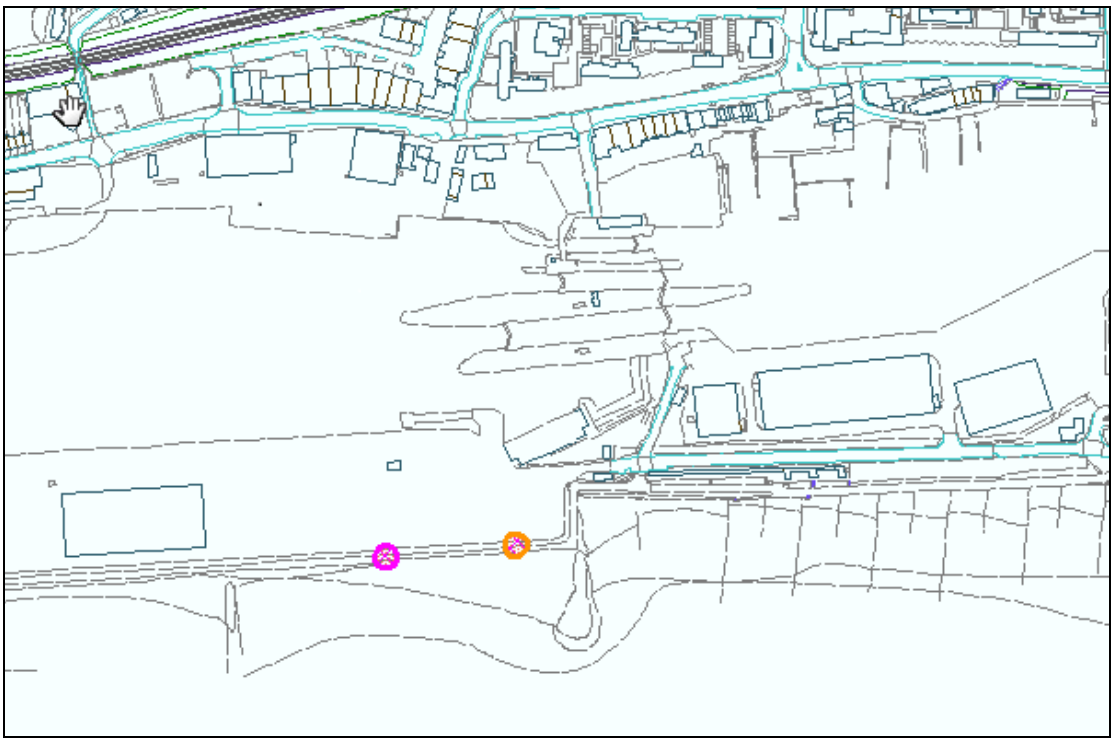
1

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Proposal: **Construction of two 100kw wind turbines, 35.4m from base to blade tip on the southern spur of land forming the eastern arm and breakwater of Shoreham Harbour. Application accompanied by an Environmental Impact Assessment.**

Applicant: Shoreham Port Authority Ward: Southwick Green
Case Officer: Peter Devonport



Not to Scale

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Site and surrounds

The proposal is located on the western tip of the southern isthmus (South Quayside) of Shoreham Harbour, close to the River Adur mouth, harbour entrance and locks. It sits just to the north of the shoreline by a footpath used by the public and to the south of the adjacent port land. The site straddles the concrete linear revetment on the eastern breakwater marking the shoreline just above a shingle beach and is close to the Shoreham Port Pump House and pilot house by Basin Rd South.

The southern Quayside comprises principally port land, facilities and infrastructure and related industrial land and beach but also is home to Carrots café, public toilets and car park and is served by Basin Rd South with coastal public footpath along much of its length as well as designated Sustrans Cycle Path, and, of course, beach.

Across the harbour entrance, to the north, lies Shoreham Harbour Port East Arm including Half Tide Quay, Penneys Wharf, Albion Wharf and Turberville Wharf- all working wharves as well as Custom House the offices of the Port Authority and Lady Bee industrial estate. Beyond the port area is the main coastal arterial road (A259) and a belt of industrial land bounded by a railway to the north.

Further to the east on the north side of the A259 (Albion Street) is a long stretch of suburban housing with pockets of medium rise flats, interspersed with industrial/commercial uses.

To the north of the railway is the residential area of Southwick. This includes Shoreham College and Southwick Conservation Area.

The land to the west of the harbour entrance comprises Shoreham Beach. Shoreham Fort, an ancient monument, sits just to the west of the harbour entrance on this land.

Shoreham town centre stands to the west of here.

The South Downs National Park is located on higher ground some 1.8 kms to the north and 3.5 kms from Shoreham Airport to the west.

In all, the nearest housing is some 300ms way to the north and over 700 ms to the west.

It is not on identified potentially contaminated land.

The site lies close to the outer boundary of the Hazardous Substances HSE consultation outer zone.

Proposal

The proposal follows pre-application discussions and a subsequent Screening Opinion by the Council that a full Environmental Impact Assessment is necessary. Community consultation by the Port Authority followed in the summer/autumn of last year.

The proposal comprises two Norvento nED100 100kw wind turbines which have a direct drive (i.e. no gearboxes and no hydraulic systems).

The turbines occupy two adjacent sites separated by some 62 ms which together amount to some 788 sq ms (including the blade overhangs).

The masts, including hub, are 24.5 ms tall and each house threes mounted rotor blades of 11 ms, giving a total height of 35.4 ms and rotor blade diameter of 22ms. The head/nose dimension of the hub is 5.06 ms deep.

The bases of the masts are 1.85 ms wide and taper slightly towards the hub.

The masts would be made of tubular steel and the rotor blades of fibreglass and epoxy. No lighting is proposed.

The structures are designed to be watertight, including maintenance door.

The turbines are secured by micropiled foundations to a depth which would be established following geotechnical investigations. The footprint of such works is 31.8 sq ms and involves pouring some 39.8 cubic metres of concrete.

Maintenance would normally generate two visits a year by small vehicles.

At the end of their useful life (20-25 years) the turbines would be decommissioned and removed and the land reinstated to its former condition.

The purpose of the wind turbines is to make a significant contribution to meeting the Port's energy needs in a sustainable manner in line with its Energy Strategy and compatible with its *Ecoport* status and aspiration to become a *Green port.*

Specifically, the turbines would generate on average 555,000kWh of electricity per year and are designed and located to power the Port's Pump House which sits to the north east and is essential to the operation of the port. The Port Authority explains that being a tidal port, daily use of the locks results in water being lost back to the sea and water levels in the basin being reduced. It is therefore essential for sea water to be pumped back into the basin, a function which is undertaken by the Pump House. Powering the pump house is the largest single consumption of electricity at the port and alone requires 475,000kWh each year, equating to 28% of the Port's total electricity consumption. The two turbines would meet and slightly exceed the pump house's energy requirements.

The proposal is supported by a Design and Access Statement and Environmental Impact Assessment including noise, heritage, archaeological and visual assessments, Flood Risk; Radio and radar; and shadow flicker assessments; and Habitat survey report, together with community engagement report.

Planning History

<u>15 wind turbines 1995</u>

An appeal was dismissed by the Secretary of States in 1995 for two conjoined wind turbine applications (Adur DC and Hove BC), straddling the boundary with Portslade and extending 3 kms along the beach on the seaward side of the eastern arm of the harbour, from the south western end of the breakwater almost as far as Aldrington Basin. This followed refusals by this Council on grounds of wider visual and neighbour amenity harm including from noise and also from Hove Borough Council.

The proposal included 12 x 58 ms tall wind turbines (each 500kw) on *the outer Lay-By Wharf and East Breakwater, Southwick/Shoreham* in addition to the three proposed on land adjacent to Basin Rd South in Portslade (Borough of Hove), sited 160 ms to 280 ms apart.

The proposals were dismissed by the Secretary of States after a Public Inquiry on grounds of visual harm, appearing as visually dominant and oppressive features within the port area and over a wider area the movement of the turbine blades would have a disturbing and intrusive effect, to the detriment of residents visual amenity and changing the visual character of the urban environment from more distant viewpoints. Had there been no other serious objections to the proposal, the Secretary of States conjectured that it might have been possible to frame a condition to control noise emissions in a robust manner to address the concerns raised by the Inspector.

Rampion Offshore Wind Farm

Planning permission was granted by the Secretary of State in July 2014 following a Public Examination for the Rampion Offshore Wind Farm comprising up to 175 wind turbines (and allied substations and converter station and cabling) with a gross electrical capacity of up to 700MW,some 13 kms off the coast between East Worthing and Newhaven.

Environmental Statement Non-Technical Summary

1. Introduction

1.1 This document is the Non-Technical Summary of the Environment Statement for the proposed wind turbine development project at Shoreham Port. It summaries the contents of the Environment Statement in non-technical language.

2. The Proposed Site

2.1 The proposed development is located within the small coastal town of Shoreham-by- Sea in West Sussex, adjacent to the English Channel within Shoreham Harbour. The Harbour is located five miles west of Brighton and five miles east of Worthing. It stretches for three miles and is bounded to the north by the A259 south coast road and the adjacent coastal communities/built up areas (see Sheet 1 of the Location Plan at Appendix 1a).

2.2 The proposed development site is situated on the southern spur of land forming the eastern arm and breakwater of Shoreham Harbour as shown on Sheet 2 of the Location Plan at Appendix 1a, 4m AOD. The spur forms part of the outer-lay by terminal to the Port connecting to the main urban area of Shoreham via Basin Road South, a principal distributor road. The Harbour entrance and mouth of the River Adur is 400m to the west and a shingle beach/the sea lies immediately to the south. The proposed site is 88m to the south west of the main Harbour Pump House, 500m west of the Power Station and 140m south of the locks which provide access to the harbour for vessels and a pedestrian access route to the north side of Shoreham Port, the marina and Southwick. The National Cycle Route crosses the locks here as does a public footpath (Reference FP9So) as shown on the plan at Appendix 1d.

2.3 There are no designated heritage assets within the site boundaries of the two turbines as shown on the Block Plan at Appendix 1b. There are a number of Listed Buildings, Scheduled Ancient Monuments (SAM) and Conservation Areas in the wider area as shown on the plans at Appendix 2b and 2c. They include the Grade II Listed Building of the Sussex Boat Club at the marina, the Grade II Listed Lighthouse 623m to the northwest and the Shoreham Fort SAM 656m to the west. The nearest Registered Parks and Gardens are located within the urban area of Brighton and Hove between 5 – 10km away – see the plan at Appendix 1c.

2.4 The plan at Appendix 1d also illustrates the location and nature of ecological sites in the vicinity of the site as well the South Downs National Park which fringes the northern edge of the urban areas. The site does not fall within any statutory or non-statutory nature conservation designations. Part of the Adur Estuary further west is a Site of Special Scientific Interest and there is a Local Nature Reserve and Site of Nature Conservation Importance at Shoreham Beach also to the west (760m). The network of recreational routes locally is shown on the plan at Appendix 1d a number of which extend into the countryside/National Park including the Downs Link, Monarch's Way and the Sussex Borders Path. As mentioned above the plan also shows National Cycle Route 2 along the coast as well as the nearby public footpath (FP9So).

3. The Proposed Development

3.1 The proposed development comprises the erection and operation of two Norvento nED100 100 kW wind turbines at the site. These will have a hub height of 24.5m and a height to blade tip of 35.4m. The rotor diameter is 22m and the three blades are to be comprised of fibreglass and epoxy. The turbine tower will be made of tubular steel, with a height of 24.5 and a flood resistant design with watertight door. The turbines will have a direct drive (no gearbox and no hydraulic systems). The turbine elevations are provided on the plan at Appendix 1e. The turbines will have micropiled foundations as illustrated on the plan at Appendix 1f.

3.2 No new access will be required for the erection of the turbines. The existing principal distributor road, Basin Road South will be utilised for transporting turbine components and construction materials to site. Given the small size of the turbines,

the loads involved will not constitute abnormal traffic movements. Whilst the delivery of the turbines will involve some extra vehicle movements on the local road network, these will be negligible in terms of their contribution to the overall levels of traffic and any possible related environmental effects.

3.3 The turbines' compact piled foundations will extend to a limited depth, the exact extent of which will be established following geotechnical investigations. The area affected will only comprise be 31.8m2 and the works will involve pouring just 39.8 cubic metres of concrete. The erection of the turbines will involve a mobile crane. The construction period is expected to last a maximum of two months. A Construction Environmental Management Plan will be prepared to ensure adherence to all relevant planning conditions and normal health, safety and environmental legislation requirements including prevention of pollution from site-based activities and management of construction waste.

3.4 During operation, there may be two trips a year by small vehicles for maintenance purposes.

3.5 The decommissioning of the turbines will take place at the end of their useful life or before then, if it is decided to cease generation. At this stage, the turbines will be dismantled using a crane and the redundant components removed from site for appropriate disposal. The ground conditions/levels around the turbine base will be reinstated to the current character so as to match the surroundings. It is anticipated that a similar/ possibly lower level of activity to the construction/erection stage will be involved with similar safeguards.

3.6 The immediate setting for the proposed turbines has an industrial character. There is a Health and Safety Zone around Building 8 on South Quayside (where ammonium nitrates are stored) and this is illustrated on the plan at Appendix 1d. The lighting towers stand at 30m. The Power Station is 106m. The drawing at Appendix 1g shows the proposed turbines in comparison to other structures.

3.7 The 2011 EIA Regulations require Environmental Statements to contain appropriate details of any alternatives considered. An outline of alternatives studied is needed together with the reasons for the choice made, taking into account the environmental effects. For the sake of clarification, no alternative sites or technologies were considered as part of the project. The project forms part of a wider renewable energy strategy throughout the Port, where solar installations have taken place.

3.8 Alternative models of turbine were considered for the site and assessed in terms of the need to generate sufficient energy to power the pump house whilst respecting the immediate context/setting for development, especially its character, the scale of nearby structures and the sensitivity of receptors including birdlife, heritage assets and human beings. Careful attention to fitting the turbine to the immediate context was also considered to have concomitant benefits in terms of other matters e.g. the

project's possible visual effects when viewed from locations further away such as the South Downs National Park.

3.9 Apart from the Norvento nED100 machine (100kW and a tip height of 35.4m), the following turbines were assessed for their energy and environmental suitability: • -Endurance E-3120 (55kW) with a tip height of 34.6m;
• -Northwind 100 (100kW) with a tip height of 40.5m;
• -Norwin 29 (225kW) with a tip height of 44.6m, and;
• -EWT 500 (500kW) with a tip height of 76.3m.

Overall, the Norvento nED100 turbine provided the necessary energy yield with a reasonably low tip height to lessen visual intrusiveness (for example in comparison to the equivalently rated Northwind machine) and satisfactory performance in relation to noise.

4. The Likely Significant Environmental Effects of the Proposed Development

4.1 The proposed development's predicted significant environmental effects are summarised below for the following topics:

• Renewable Energy/Climate Change
• Landscape and Visual Amenity
• Cultural Heritage and Archaeology
• Noise
• Shadow Flicker

Renewable Energy/ Climate Change

4.2 It is estimated that the two proposed turbines will generate 555,000kWh of electricity per year, enough to power the Port's Pump House.

4.3 Using this power will directly reduce the demand for non-renewable energy at the Port as well as give greater flexibility to the timing of the operation of the pumps. Currently, to ensure that they demand as little energy as possible, the pumps run only during periods of high tide. The introduction of a renewable wind energy resource will allow greater flexibility in the operation of the pumps.

4.4 Renewable UK's carbon dioxide calculator yields a figure of 6,327 tonnes of CO2 saved over the lifetime of the turbines (25 years).

4.5 The renewable energy generated would contribute to sustainable development objectives, reducing greenhouse gas emissions and helping combat climate change. PPG explains why this is important as follows:

"Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas

emissions to slow down climate change and stimulate investment in new jobs and businesses."
(Paragraph: 001 Reference ID: 5-001-20140306)

4.6 One of the key principles for planning set out in the National Planning Policy Framework is to support the transition to a low carbon future in a changing climate and encourage the use of renewable resources (for example by the development of renewable energy). Paragraph 98 of the NPPF stresses that local planning authorities when determining planning applications should recognise that even small-scale renewable energy development projects 'provide a valuable contribution to cutting greenhouse gas emissions'.

Landscape and Visual Amenity

4.7 The Landscape and Visual Impact Assessment (LVIA) has followed Landscape Institute and related best practice guidance. It has identified the existing landscape and visual environment of the site within a 10 km radius study area and assessed its sensitivity to change. The assessment has also described the nature of predicted changes to receptors and has concentrated on predicting the likely effects of the proposed development during the construction, operational and decommissioning phases. Finally, the assessment has determined the likely significance of predicted changes, taking into account the sensitivity of the receptors concerned and the magnitude of the predicted changes.

4.8 Predicted landscape and visual effects during the operation of the two turbines are most pronounced within a 2km radius where from a handful of localised areas within and on the fringes of the harbour and from sections of the esplanade within 2km to the east and west, the majority of the proposed turbines will visible above the local skyline. However, the assessment notes that where the proposed turbines will be visible they will be perceived within the context of numerous man-made features associated with the harbour and working port which have already established the strong industrial and man-made influence of this coastal area. Within this context, the assessment concludes that the proposed turbines will barely affect the existing characteristics of the receiving landscape. Visually, the proposed turbines will be a conspicuous and partial change to a small proportion of the industrial context and due to blade movement will affect the experience of this industrial landscape. However, the assessment concludes that the tall slender masts of the turbines will be placed into a dialogue with the surrounding industrial buildings, chimneys and boat masts whilst blade movement will reflect the natural coastal surroundings and the coming and going of the tide as well as the frequent movement of cargo ships and private boats. As such, the assessment concludes that the proposed development could potentially be perceived as a new sculptural element reflecting its coastal and industrial context. Beyond 2km, views towards the turbines are limited and where they are visible the turbines form a very small component above an urban skyline that is frequently broken by numerous other vertical man-made features perceived at a similar or larger scale.

4.9 The vast majority of effects on landscape, townscape and visual receptors during the operation of the two turbines are judged to be not significant in the assessment including:

• No significant effects being predicted on the intrinsic quality, characteristics or integrity of any landscape designations, including the South Downs National Park;
• No significant effects on the character and qualities of the Landscape Character Areas within the study area;
• No significant effects on the character and qualities of the Townscape Character Units identified within the study area;
• No significant effects on the integrity and landscape quality of the settings to any listed structures, buildings or Scheduled Ancient Monuments (SAM) within the study area or on any designed landscapes or recreational areas (as also confirmed by the Cultural Heritage and Archaeological Impact Assessment in Volume 3 of the Environmental Statement);
• No significant landscape effects are predicted at any of the 8 representative static viewpoints; and
• No significant cumulative effects.

4.10 The construction phase of the proposed development is assessed to have a minor and not significant effect on the fabric of the application site and extended harbour area. Effects during the decommissioning phase of the work will be similar to the construction stage, involving an increase in the human activity and heavy plant (not an uncharacteristic feature) over a short period of time. Therefore the effects arising at this stage of the project are assessed to be minor and not significant.

Cultural Heritage and Archaeology

4.11 The cultural heritage and archaeological impact assessment was conducted in accordance with the Institute for Archaeologists standards and English Heritage guidance on assessing the effects of development of the settings of heritage assets. The following effects were assessed in full: direct impacts on designated and non-designated heritage assets; indirect impacts on the settings of designated and non-designated heritage assets, and; cumulative effects on cultural heritage assets of the turbines in combination with existing/proposed wind developments in the wider landscape. The assessment has involved: analysis of Zone of Theoretical (ZTV) mapping; analysis of photomontage and wireframe information; consideration of the Historic Environment Record for West Sussex; use of the Institute for Archaeologists standards; consideration of the English Heritage consultation response on the EIA Scoping Opinion request; use of English Heritage guidance on the assessment of development impacts on heritage assets; application of the tests in paragraphs 132, 133 and 134 of the NNPF dealing with the issues of substantial harm/less than substantial harm in relation to designated heritage assets, observation of the duties in the Planning (Listed Buildings and Conservation Areas) Act 1990, and: field work study/observations.

4.12 The assessment of impact of the proposed turbines on heritage assets including their settings concluded there would be no effects on the setting of Listed Buildings associated with the Green sub Area of the Southwick Conservation Area, the setting of the Kingston Buci Conservation Area, the setting of the Green sub area of the Southwick Conservation Area and the setting of Southwick Conservation Area as a whole. Minor effects have been predicted on:

• The setting of the Scheduled Ancient Monument of Shoreham Fort and its associated undesignated assets;
• The setting of the Grade II Listed Kingston Lighthouse; and
• The setting of Riverside heritage assets including the Listed Building of Sussex Yacht Club, associated undesignated assets and the Riverside Sub Area of the South Conservation Area.

4.13 These minor effects have been judged to be noticeable but beneath the threshold where the National Planning Policy Framework tests apply. No cumulative effects were identified with the planned offshore Rampion wind farm.

4.14 No direct physical impacts are predicted on archaeology. There are no designated or non-designated assets within the site. The history of the land's development and use means that subsurface archaeological remains are very unlikely. The potential for remains is low as is the potential to impact on historic landscape character at the site.

Noise

4.15 There were two parts to the noise assessment work. An assessment of the likely effects on nearby residential properties and another that considered possible effects on the Marine Management Office Building and other industrial/commercial premises within the port area.

4.16 Given the urban location of the turbines and the density of the local housing areas, a sample of representative dwellings/locations were the subject of the residential noise assessment. The dwellings/locations were Locks Court, Coates Court, 27 Albion Street, 29 Victoria Road and 5 Colebrook Road. Detailed background noise surveys and acoustic modelling of the turbines' noise emissions were carried out to predict operational noise levels at the sample dwellings/locations under a range of wind speed. The assessment for these nearby dwellings/locations indicates that the noise level from the proposed turbines will be lower that the levels recommended by guidance endorsed by Government for both the quiet daytime and night time periods. This guidance is known as ETSU-R-971.

4.17 The noise assessment work for the Marine Management Organisation (MMO) Building and industrial/commercial properties in the port, involved a background noise survey at the MMO premises and prediction of the noise levels from the proposed turbines using the manufacturer's stated power levels with an appropriate level of

uncertainty applied (in accordance with best practice). The predicted noise level complies with British Standard 8233, The Control of Noise at Work Regulations and background noise levels in a manner similar to that stated in ETSU-R-97. The assessment therefore concludes that the likely noise impact from the proposed wind turbines on industrial/commercial properties within the port will be acceptable.

Shadow Flicker

4.18 The only building within a ten rotor diameter distance (220m) of the proposed Turbines is the MMO Building, at 165.09m distance from Turbine ID1 and 84.87m from Turbine ID 2. Specialist computer software (Garrad Hassan's WindFarmer (Version 5.3.27.0) was used to predict shadow flicker effects on this Building.

4.19 There are 78 days when the MMO Building could potentially experience more than 30 minutes of shadow flicker per day. These are mostly within February /March and September/October. The MMO Building also lies in a zone where it is predicted that the overall potential exposure to shadow flicker is likely to exceed 30 hours per year. The worst-case scenario is that this building could potentially experience up to 119 hours of shadow flicker per year, which is adjusted to 50 hours (0.5% of the year) when average sunshine hours for the UK are considered.

4.20 Bearing in mind the general European/German best practice maximum exposure threshold guidelines of 30 minutes per day and 30 hours per year, these exceedances would be considered to be significant without mitigation. Paragraphs 4.21 and 4.22 below demonstrate that mitigation can be implemented to prevent any shadow flicker, thus resolving the issue.

4.21 The English National Planning Practice Guidance notes that:

"Modern wind turbines can be controlled so as to avoid shadow flicker when it has the potential to occur. Individual turbines can be controlled to avoid shadow flicker at a specific property or group of properties on sunny days, for specific times of the day and on specific days of the year. Where the possibility of shadow flicker exists, mitigation can be secured through the use of conditions."

4.22 With the imposition of an appropriate planning condition, it is unlikely that the MMO Building would experience any significant shadow flicker effects. Hence, whilst the assessment has predicted the potential for significant shadow flicker effects to be experienced at the MMO Building at certain times of day during the year, the imposition of a planning condition to control the operation of the turbines will provide effective mitigation such that the residual effects will be nil.

5. Effects Scoped out of Detailed Assessment

5.1 The EIA work and the Environmental Statement have not ignored environmental aspects other than those discussed in Section 4 above. These matters have been

properly considered. They were, however, scoped out of detailed assessment work for the reasons discussed in the next section and the evidence that has been gathered on each matter.

Effects on Ecology/Ornithology

5.2 As part of the EIA study work, Fine Energy appointed PJC Ecology to carry out an Extended Phase 1 Habitat Survey to determine the project's likely effects on wildlife interests. It concludes:
• the site is not situated within or adjacent to statutory or non-statutory sites;
• the site is considered to be of low ecological value;
• the site is not considered suitable for reptile species;
• it is not considered that the development will affect local bat populations or their favourable conservation status;
• protected bird species are largely associated with habitats not present within the application site and are considered to be unlikely to be using the site; and
• consultation with the Royal Society for the Protection of Birds does not identify any constraints and the siting and numbers of turbines is not considered to be significant in terms of bird strikes.

Effects on Aviation, Radar and Telecommunications Infrastructure (including Shipping)

5.3 Consultations with the MOD, Ofcom and local telecommunication operators (who have responded) have revealed no objections to the proposal. In addition to this, Fine Energy appointed Pager Power to conduct a specialist study of the likely impact of the turbines on marine radar and radio communications at the Port. This predicts no significant adverse effects upon VHF transmitters or marine radar. Shoreham Airport did not respond to consultation and it is assumed that there are no impacts predicted on their Air Traffic Control operations or any physical/technical safeguarding issues - they will of course be consulted again on the application. Fine Energy's aviation consultants, Bowden Muir Aviation Navigation Services have carried out an assessment for other interests. Significant terrain screening exists between the site and the following Airports and their radar: Gatwick Airport Primary Surveillance Radar (PSR) (NSL) at 35.4km, Heathrow 10cm PSR (NSL) at 71.6km, Heathrow 23cm PSR (NSL) at 73.2km, and Southampton PSR (NSL) at 79.4km. Likewise terrain screening around Perching Hill has been assessed to provide protection to Pease Pottage PSR (NERL), especially given the height of the proposed turbines which will be below 150m AGL. There are no en-route aeronautical navigational aids or sites that need to be considered.

Traffic Noise Effects

5.4 The delivery of the turbines will involve some extra vehicle movements on the local road network. However, these will be negligible in terms of their contribution to the overall levels of traffic and any possible related environmental effects. The proposed access will be from Basin Road South, a principal distributor road. The Port Master

Plan Final Report October 2010 records high levels of traffic. If anything the port is busier today and therefore the total current traffic levels will be higher. The traffic created by the turbines will clearly be insignificant, especially post construction for maintenance i.e. maybe two vehicle trips a year compared to 3,000 trips a day on Basin Road South in 2010.

Construction Noise Effects

5.5 As noted above in Section 3 the turbines will have compact piled foundations to a limited depth, the exact extent of which will be established following geotechnical investigations. The area affected will only comprise be 31.8m2 and the works will involve pouring just 39.8 cubic metres of concrete. The erection of the turbines involves a mobile crane. Even without the background noise levels of the operational Port, these activities cannot reasonably be considered likely to give rise to any significant disturbance or nuisance. (The Council's Environmental Health Officer acknowledged the existing background noise levels in the consultation response for the Environmental Impact Assessment Screening Opinion.)

Pollution to Air/Water and Waste Generation Effects

5.6 Apart from operational noise, wind turbines do not give rise to any other emissions or pollutants. There are no fumes or waste water generated. As mentioned above the depth/extent of excavations for foundations will be kept to a minimum, with the former being guided by detailed geotechnical investigation. The excavation of the foundations will only be to. Interrogation of Environment Agency online data has shown that the site is not underlain by any known aquifers, groundwater or watercourses which would in any way be contaminated or a pathway to any other sensitive receptor. The Screening Opinion also acknowledged that there are no records of contaminated land on the site. The construction process will be guided by a Construction Environmental Management Plan that will ensure proper disposal of any site waste and storage of equipment/materials.

Public Safety Effects (including flooding)

5.7 The Screening Opinion mentioned a number of points relating to this issue: the possibility of fall over, blade disconnection, the loss of power due to flooding and the location of the site within a Health and Safety Executive (HSE) Consultation Zone. The Companion Guide to former Planning Policy Statement 22 on Renewable Energy made it clear that wind turbines are a safe energy technology with no significant risks to the public from either fall over or blade failure. This was confirmed by the Health and Safety Executive in their 2006 Report to Government2 which stated that in relation to hazards such as whole or partial blade failure, falling ice, fire and lightning "The history of the industry indicates that the likelihood of occurrence of incidents from these hazards is low". National English Planning Practice Guidance mentions that for buildings a fall over distance (i.e. the height of the turbine to the tip of the blade) plus 10% is often used as a safe separation distance. The maximum height of the turbine

will be 35.4m to the very tip of the blade. The nearest building is the pump house 65.2m to the north. This is not staffed. The nearest staffed building is the Marine Management Organisation, 88m to the north east of the nearest turbine. The nearest County Council recognised public right of way is 109.26m to the north east of the closest turbine. This is an established footpath (Reference FP9So as shown on the plan at Appendix 1d). In any event, given the safety track record of wind turbine technology there is no need to restrict public access in the vicinity of the project. The two turbines will not affect the use of the informal footpath along the sea defence wall to the breakwater or the use of the adjacent beach. The susceptibility of the proposal to flooding is a material planning consideration and a Flood Risk Assessment accompanies the planning application. This explains that wind turbines as 'Essential Infrastructure' are deemed suitable in principle in Flood Zone 3 (subject to the Exception Test). It also confirms that the turbines are of low risk of tidal flooding, that the risk from wave overtopping can be mitigated through flood resistant design and that the proposed development will not increase flood risk elsewhere. The location of the proposed site with the HSE Consultation Zone does not give rise to any significant risk issues because wind turbines are not deemed to form 'sensitive development' as far as major hazard installations are concerned under the Executive's methodology for planning for developments near such installations, given that they do not give rise to large numbers of people being present for extended periods of time.

Consultation Responses

South Downs National Park Authority

The two turbines proposed would be located approximately 2klm south of the boundary with the South Downs National Park (SDNP), and approximately 2.5klm south from the elevated Downs public access land over Southwick Hill. From this elevated position, Southwick Harbour is clearly visible. The shoreline is punctured by a variety of existing vertical structures which serve the heavy industry of the locality, with the power station chimney particularly prominent.

The National Park has the highest status of protection as a designated area of landscape beauty, cultural heritage and wildlife. Bearing in mind the distance the new turbines would be sited from the National Park, together with the considerable urban conurbation at varying topography between the National Park and the port site for the two turbines, these combine to help minimise the environmental effects and visual impact of the proposed wind turbines at the height and location proposed. This together with the heavy industrial setting of the site for the new turbines and the existing high port lighting towers, and other vertical structures in place in this industrial location, it is considered unlikely that the proposed wind turbines, in this instance, would have significant environmental effects or harmful visual impact on the purposes, special qualities and landscape setting of the SDNP.

Environment Agency

We are pleased to note that all vulnerable elements of the proposed development will be located above the predicted flood level in 2115. Therefore we have no objection to the proposal as submitted.

English Heritage

We offer the following advice in addition to our previous comments dated 7th April 2014, made during the EIA screening stages of this proposal.

<u>English Heritage Advice</u>

The proposal involves the installation of two medium scale wind turbines on a southern spur of land forming the eastern arm of a breakwater at Shoreham Harbour. These are to provide sustainable energy to power the Pump House, in line with the harbour's existing credentials as an Eco Port.

As would be expected Shoreham Harbour has an industrial and maritime character with its port infrastructure, marina, warehouses and industrial buildings. The most dominating feature is the power station and its tall chimney, but there are other tall vertical elements such as the port's lighting towers that punctuate the horizon as well as the masts of the moored boats.

Whilst there are no designated heritage assets within the site boundaries, our previous response highlighted the presence of the scheduled ancient monument of Shoreham Fort, listed buildings and conservation areas within the vicinity of the site whose settings could be affected by the proposal. We recommended therefore, that a detailed study should be provided to assess the impact of the development on the significance of designated assets.

The Government's policies for the historic environment are set out in section 12 of the National Planning Policy Framework. Paragraph 132 explains that the significance of heritage assets can be harmed by development within their settings and paragraphs 133 and 134 explain that any harm would need to be clearly justified and balanced against any public benefits. We are also mindful of paragraph 98 of the NPPF which explains that local authorities, when determining planning applications, should recognise the contribution of renewable energy schemes in helping to mitigate climate change.

We have looked at the Cultural Heritage and Archaeology Chapter of the EIA, which is very thorough, and which has assessed the impact of the proposal on a wide range of heritage assets and has provided photomontages of the how the turbines will appear in views from some of these. We generally concur with the findings of this that there would be negligible to minor harm to the significance of designated heritage assets. This is because the turbines will be viewed within the industrial context of Shoreham

Harbour, which as explained above, already contains a number of tall structures that are visible in near and far views. The turbines would be much smaller in height than the chimney of the power station and would be sited alongside the lighting towers which are of a similar height to the proposed turbines. They will therefore be seen within this context and will not be an out of keeping or dominant element in this landscape. Whilst we appreciate the turbines will be rotating, the working harbour is not a static environment but a dynamic one where vehicles and boats move in and out against the backdrop of the ever changing sea and sky.

We therefore consider this is a suitable location for the wind turbines and that any minor harm that would result from the proposal is outweighed by the benefits of providing a source of sustainable energy for the port.

Recommendation

We would urge you to address the above issues, and recommend that the application should be determined in accordance with national and local policy guidance, and on the basis of your specialist conservation advice. It is not necessary for us to be consulted again at this stage. However, if you would like further advice, please contact us to explain your request.

Natural England

I have reviewed the above application and I can confirm it is Natural England's view that it is unlikely to impact on the interest features of the SSSI as previously advised in our letter of 31st March 2014. We have no further comments to make at this time.

Ministry of Defence

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.

If the application is altered in any way we must be consulted again as even the slightest change could unacceptably affect us.

Environmental Health Officer

Environmental Health has a public health role and we are not qualified to comment on television reception.

With regards noise; I have no concerns with the applicant's noise survey. This shows noise levels at the closest properties are within the ETSU guidance. Shoreham Beach residents are further away.

Highway Authority
Further information required on details of proposal, in particular a plan is required including details of how the structures will be maintained; Information and plan showing access route for construction purposes (and vehicle types); and a construction management plan (this may be reserved by condition).

Drainage Officer
No objections.

Head of Building Control
My view is that the current indicative design is minimal and the pile depth and perhaps diameter will increase when they get the geotechnical report. I do however recognise that this form of foundation is appropriate and the plant needed to form a piled foundation of greater depth is much the same so the overall impact will change very little.

Representations

The application was the subject of pre-application community consultation by the applicants last year.

The outcome is summarized by the applicants as follows;

In total 20 people offered a response, 14 (70%) of which were in support of the proposal, four (20%) had concerns and two (10%) expressed conditional support if their concerns are adequately addressed.

Several respondents expressed appreciation for the design of the project. They were satisfied that the renewable energy produced would directly benefit the locality as it would power the Port's pump house.

Many people were not concerned about the visual impact as the turbines will be located in an industrial setting. These people considered that turbines will neither improve, nor harm the aesthetics.

In respect to the current application, the following objections have been received.

Kingston Lane Southwick

I have lived on Kingston Lane for 17 years and have walked down to the harbour arm innumerable times for recreational purposes and I consider that the turbines could not have been put in a more intimidating position for walkers. The turbines should be placed elsewhere in a position not menacing the multitudes of people throughout the year using this local amenity for recreational/health purposes

No address given

Should be refused as is too close to local residents houses. The application has been refused once by a Government inspector as totally unacceptable. The previous application was for many more is this the start of something big on an instalment plan

Few years ago same applicant applied for larger development of the same nature which went to a Government Inquiry. The inspector found among many things it was a infringement on residential living standards as it was too close to housing. He also said the A259 was a busy road and the moving blades would be a distraction for motorists. If planning permission is granted it would be difficult to refuse a further request to extend the number.

Resident from Shoreham Beach

In Vol 2 Landscapes and Visual Assessment there is a report by VLM which contains many errors and references to Southam by Sea. Clearly its author doe sot know the area and has not checked the report so there can be little credence attached to it.

Vol4 concerns noise and uses an established method of measuring the background noise and adding a turbine noise to it. In most examples the background measurements have been made in areas near the main A259 which is the main road through Shoreham and the turbines add a small amount to it. It is noted however that no measurements have been made on Shoreham Beach which is just as near the turbines and is much quieter particularly at night.

If proper measurements were made in an unbiased way at say the eastern end of the Old Fort or Fort Haven the noise from the turbines would be unacceptable.

The location: The proposed turbines are adjacent to the path leading to the western end of the eastern harbour arm. This path is widely used by recreational walkers,

joggers, dog walkers, cyclists and fisherman who will be within touching distance of the towers and right underneath the blades. This must be a safety hazard.

76 Greenways Crescent

Over-development. I would like more information please.

Support

The following representations of support have been received

Carrats Café

No objections it might make people think and look a bit closer at renewable energy.

4 Shoreham Court

Fully support application re more renewable energy.

Adur Business Centre Little High Street Shoreham

I fully support this planning proposal. The Wind turbine will look interesting and we need to embrace renewable energy solutions.

Brighton Energy Co-op

On behalf of our 200 members, fully supports the proposed development at Shoreham Port. Locally-generated renewable energy is key to a sustainable future, and the wind turbines provide an innovative new way of providing clean energy to the area.

Hove Civic Society

Strongly support the proposal which reflects the aspirations of the emerging JAAP which our society has commented on extensively. The JAAP supports the harbour authority's ambition to become an important hub for the renewable energy generation and this application will provide a further opportunity for the harbour to move I that direction. We believe the proposal will help Shoreham harbour take a significant step towards becoming more us and that in turn will help other renewable energy technologies to be promoted in the region.

Planning Assessment

The main issues raised by this proposal are:-

a) The principle of wind turbines within the port, scale efficiency and siting of turbines, access impacts and contribution to Port regeneration and to decarbonising energy generation nationally and locally.
b) Impact on safety including, impact on telecommunications at the port, structure fall-over and road and aviation safety.
c) Impact on amenity of neighbours and visitors in terms of noise, shadow flicker, interference to TV, radio etc. and other disturbance.
d) Quality of the design and impact on local character, views and landscape/townscape, including national park and setting of heritage assets
e) Wildlife and other environmental impacts, including archaeology and flood risk
f) Precedent of 1995 Public Inquiry decision on wind turbines

The Committee should consider the planning application in accordance with:

Section 70 of the Town and Country Planning Act 1990 (as amended) that provides the application may be granted either unconditionally or subject to relevant conditions, or refused. Regard shall be given to relevant development plan policies, any relevant local finance considerations, and other material considerations; and

Section 38(6) Planning and Compulsory Purchase Act 2004 that requires the decision to be made in accordance with the development plan unless material considerations indicate otherwise.

The Adur Local Plan saved policies comprise the Development Plan here but the Government has accorded the National Planning Policy Framework considerable status as a material consideration which can outweigh the Development Plan's provisions where such plan policies are out of date; or silent on the relevant matter or at variance with the National Planning Policy Framework. Where the National Planning Policy Framework prevails, it states that planning permission should be granted *unless:*

—any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
—specific policies in this Framework indicate development should be restricted

The Saved Policies from the 1995 Local Plan are now twenty years old. Whilst the Council's own Conformity Assessment of the saved policies still indicates broad compliance with the National Planning Policy Framework, the weight that may be attached to many of the detailed policies is limited. Policies most relevant are Policy AG1: Policy AB1; Policy AB3; Policy AB11; Policy AE7 and; Policy AE8.

The weight accorded to the Draft Adur Local Plan as a material consideration is also limited due to its still emerging status, albeit formal submission in expectation of Public Examination is imminent. Most relevant policies are Policy 1: Sustainable Development Policy 2 Spatial Strategy; Policy 8 Shoreham Harbour Regeneration Area; Policy 13 Adur's Countryside and Coast; Policy15 Quality of the Built Environment and the Public Realm; Policy16 A Strategic Approach to the Historic

Environment; Policy17 The Historic Environment; Policy 32 Biodiversity; Policy35 Pollution and Contamination, and; Policy37 Flood Risk and Sustainable Drainage.

For the same reason, the importance attached to the Draft Shoreham Harbour Joint Area Action Plan is restricted as it is also still under preparation and has also not reached Public Examination stage. Most relevant policies are;: Policy JAAP2 South Quayside; Policy JAAP13 Sustainable Design and Energy; Policy JAAP16 Noise; Policy JAAP19 Shoreham Port Operations; Policy JAAP27 Managing Flood Risk, and; Policy JAAP28 Nature Conservation and proposals map designation 'Renewable Energy Opportunity' in South Quayside.

In addition to the above, also relevant are Government's Planning Practice Guidance allied to the National Planning Policy Framework; Government's ETSU-R-97 The Assessment and Rating of Noise from Wind Turbines; The Government's Overarching National Policy Statement for Energy, published in 2011 and the Third Update to the UK Renewable Energy Roadmap of 2013; duties under S.66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 and relevant agency/trade standards set out in The Government's Planning practice guidance for renewable and low carbon energy, Planning Sussex Noise advice document; Institute of Acoustic's "A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise – ADC as well as the statutory objectives of the National Park under the 1949 Act.

Finally, the Draft JAAP links via Policy 8 to both The Master Plan for the Port produced by the Shoreham Port Authority in 2010 and Shoreham Harbour Interim Planning Guidance prepared jointly by Adur DC, Brighton & Hove City Council and West Sussex County Council (2011). These are material but, as un-adopted and non- development plan documents, are not determinative.

Environmental Impact Assessment

A formal screening decision under the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 was issued in July 2013 by the Council requiring a full Environmental Impact Assessment, to be submitted with the application. This has been produced and accompanies the application.

The principle of wind turbines within the port, the scale, efficiency and siting of the turbines and contribution to port regeneration and access impacts and contribution to decarbonising local and national energy generation

Principle of wind turbines and contribution to decarbonising local and national energy generation

Wind turbines constitute infrastructure and provide renewable energy and reduce the reliance on fossil fuels to meet the nation's energy needs, and, correspondingly, help moderate greenhouse (carbon) emissions and militate against climate change. The

Port reports the turbines would yield a figure of 6,327 tonnes of Carbon Di Oxide saved over their lifetime.

The scale of the wind turbines proposed mean they fall into the medium sized category, and are not of national significance (i.e. not greater than >50MW).

The Government's National Planning Policy Framework assigns;

Planning a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the impacts of climate change, and supporting the delivery of renewable and low carbon energy and associated infrastructure. It strongly *support(s) the transition to a low carbon future in a changing climate, and encourage(s) the use of renewable resources (for example, by the development of renewable energy).*

This echoes the Government's Overarching National Policy Statement for Energy, which explains that as part of the UK's need to diversify and decarbonise electricity generation, the UK government is committed to increasing dramatically the amount of renewable generation capacity; in the short to medium term, much of this new capacity is likely to be onshore and offshore wind. In respect of the UK's commitments to sourcing 15% of energy from renewable sources by 2020, it states that to hit this target, and to largely decarbonise the power sector by 2030, "it is necessary to bring forward new renewable electricity generating projects as soon as possible. The need for new renewable electricity generation projects is therefore urgent".

More recently, in 2013, the Government's Third Update to the UK Renewable Energy Roadmap reiterated its commitment to achieving the UK's 15% renewable energy target by 2020 (committed by the Energy Directive 2009). It states that renewable energy offers the UK a wide range of benefits from an economic growth, energy security and climate change perspective, and that a key benefit of deploying renewable energy technologies is the potential reduction in carbon emissions (paragraph 91). It also states that onshore wind is one of the most cost effective and proven renewable energy technologies, and has an important part to play in a responsible and balanced UK energy policy.

Despite its age, the 1995 Adur Local Plan is generally supportive of the principle of renewable energy schemes to help manage climate change, subject to acceptable impacts under policy AP6 which states;

Planning applications for power generation installations based on energy from wind, the sea or the sun will only be permitted if:-

(a) the development is located without unacceptable detriment to visual amenity;
(b) the development will not cause detriment to the amenities of people living nearby, particularly in respect of noise disturbance, and interference with T.V. reception, and
(c) the development will not cause detriment to wildlife.

The Proposed Submission Adur Local Plan (2014) also takes a very positive stance on the provision of such decentralised stand-alone renewable energy facilities at the Harbour. The key policy is Policy 8;

Character Area 1: South Quayside; Area Priorities: To support Shoreham Port Authority in improving operational efficiencies, developing new trade and exploring opportunities for sustainable energy generation, in line with the adopted Port Masterplan.

In Strategic Objective 1 of the Draft JAAP (2014) 1 states *The Port will be supported in becoming an important hub for renewable energy generation.* To this end it notes *Large wind turbines on the Port are an effective way of increasing renewable energy generation and reducing carbon emissions, subject to impact assessment via the planning application process.* In the same vein it establishes for South Quayside a similar priority for sustainable energy operation as The Draft Local Plan Policy 8. Policy JAAP 13 further reiterates; *Developers are encouraged to demonstrate how they can contribute towards Shoreham Port Authority's objective of becoming a hub for renewable energy generation.*

In addition, the Draft JAAP identifies a specific '*Renewable Energy Opportunity*' in South Quayside Inset Map in the location of the proposed turbines and a commitment to support the Shoreham Port Authority in exploring new opportunities for sustainable energy generation in line with the Master Plan (Character Area 1 : South Quayside: Area Priorities'.

The Draft JAAP also noted:

"Large wind turbines on the Port are an effective way of increasing renewable energy generation and reducing carbon emissions, subject to impact assessment via the planning application process."

To the same end, the Port Master Plan identifies the opportunity for wind turbines along the southern boundary of South Quayside to progress to further the port's ambition to become an important hub for renewable energy generation (Strategic Objective 1: To promote Sustainable Development). This would develop the Port's existing Ecoport4 status and help realise the aim of becoming a 'Green Port' (in relation to the generation and use of energy, the port's carbon footprint and its working practices).

The Shoreham Harbour Interim Planning Guidance generally reiterates the above.

Against this background, it is clear the principle of such renewable energy infrastructure is supported by national and local policy, extant and emerging, and is foreshadowed in key local planning documents. It would militate against climate change, generating modest but valuable benefits.

Scale, efficiency and siting of wind turbines

It is important to note that the National Planning Policy Guidance advises that;

When determining planning applications, local planning authorities should: not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and approve the application if its impacts are (or can be made) acceptable.

A coastal location in general has many obvious operational advantages for a wind turbine to maximise energy generation.

In terms of need, the scale of the wind turbines is designed to match and modestly exceed the energy requirements of the pump house, whose function is critical to the operation of this tidal port and is a major consumer of electricity. The spacing of the turbines is around 4 rotor blades diameter and the manufacturers report this will allow the machines to perform optimally.

The Port explains that, even though wind speed can be variable, a modern wind turbine is able to produce electricity 70-85% of the time, generating different levels of power dependent on wind speed. Inevitably there are times when wind speed is insufficient to allow generation to take place (plus a small amount of down time for maintenance), but over the course of a year, it will generate about 30% of the theoretical maximum output, known as its load factor. This compares to the load factor of conventional power station of, on average, 50%.

At times when the turbines do not generate sufficient energy to meet needs, supplementary power would be taken off the grid. By the same token, surplus electricity generated by the turbines would be fed back into the grid to the benefit of the port and increasing the non-carbon electricity supply available to grid users. The Port Authority has agreed appropriate terms with UK Power Networks.

The Port reports that the average wind turbine in the UK will pay back the energy used in its construction within three to five months. This compares favourably with coal or nuclear power stations, which take about six months.

The siting of the turbines close to the pump house into which they would directly feed is sensible for energy efficiency reasons (i.e. cable run is not excessive) but also reflects other operational considerations as well as the visual and other environmental factors. The site occupied for the turbines and its surrounds is reclaimed brownfield land but the land take itself is minimal. Because of site uncertainties, it is common for any planning permission to give some modest flexibility in the micro siting of turbines, and, in this instance a tolerance of around 10 ms on an east west axis is considered acceptable.

Its general location in the South Quayside and more detailed siting on the seaward side of the Outer Lay-by Terminal off Basin Road South accords with spatial approach of local planning guidance.

As the pump house is required to operate at night and throughout the year, including winter months when daylight hours are fewer, solar power was not a feasible option. Existing photovoltaic panels mounted on the roof of the Hove Enterprise Centre and Shed 10 on Brighton Terminal already contribute to meeting the Port's energy demand sin a sustainable fashion.

Accordingly, the proposal represents a well-considered, effectual and sensible response to an identified energy need and is compliant with the relevant policy guidance.

At the end of its operational life the structure can be required to be removed and the land restored to its former state by means of a suitable condition.

Contribution to port regeneration and access impacts

Situated in the South Quayside zone of the Port which is reserved for port related activities in the Draft JAAP and Port Masterplan, the proposal complements and facilitates the port's core activities. It is a logical choice for a wind farm directly serving the port and presaged in local guidance. Certainly, in terms of the character and function of the port, such infrastructure is highly compatible with an industrial/port operational landscape.

Construction impacts on the port operations are short term and limited and good access from Basin Rd South exists.

The proposal will assist in the realisation of its regeneration ambitions, including designation as a Greenport. Wider regeneration benefits to the area may follow as its reputation as hub for renewable energy becomes established and if the wind turbines assume iconic flagship status.

Again, this accords with broad policy.

Impact on safety including, impact on telecommunications at the port, structure fall-over, road and aviation safety.

As electrical machines, wind turbines radiate electric and magnetic fields in themselves and as large and moving structures also have the potential to cause interference with telecommunications and pose a physical hazard to aviation and the public.

The potential telecommunication impacts have been assessed by the applicants, including on the Port's nearby, VHF radio transmitter mast by the entrance to the locks and Marine radar station close to the river mouth and lighthouse.

They conclude it is unlikely that electromagnetic emissions will interfere with such equipment and likewise, no significant impacts on the VHF transmitter or marine radar station would occur from the physical presence of the turbines and the rotor blade motion. Further comfort may be drawn from the fact that, as the Port Authority is the applicant, it is in its own best interest that the functionality and safety of the port is not prejudiced by the turbines.

In terms of wider impacts on telecommunications, Shoreham Airport has not responded to the consultation on the current application and the applicants conclude other airports are remote and screened by the terrain from any material impacts.

The absence of any objection from the MOD and local telecommunication operators to the proposal as a result of consultations undertaken by the applicants adds further weight to the above conclusions.

As a precaution, however, a condition requiring any subsequent complaints problems to be investigated and addressed, as necessary is recommended.

The presence of tall structures such as the turbines can impact on aviation safety but the Ministry of Defence raise no objections in principle and no response has been received from Shoreham airport.

The identified potential shadow flicker zone is far to the south of the A259 and the applicants report that the flicking on and off of light is unlikely to impact anyone that is moving around or within an open environment and refer to the presence of a number of very large scale turbines are positioned close to and within clear view of Britain's Motorway network operating without ill effect.

Turning to broader public safety, the possibility of structure fall-over and blade disconnection has been assessed by the applicants. They note;

The Companion Guide to former Planning Policy Statement 22 on Renewable Energy made it clear that wind turbines are a safe energy technology with no significant risks to the public from either fall over or blade failure. This was confirmed by the Health and Safety Executive in their 2006 Report to Government which stated that in relation to hazards such as whole or partial blade failure, falling ice, fire and lightning "The history of the industry indicates that the likelihood of occurrence of incidents from these hazards is low".

They further state that;

National English Planning Practice Guidance mentions that for buildings a fall over distance (i.e. the height of the turbine to the tip of the blade) plus 10% is often used as a safe separation distance. The maximum height of the turbine will be 35.4m to the very tip of the blade. The nearest building is the pump house 65.2m to the north. This is not staffed. The nearest staffed building is the Marine Management Organisation, 88m to the north east of the nearest turbine. The nearest County Council recognised public right of way is 109.26m to the north east of the closest turbine. This is an established footpath. In any event, given the safety track record of wind turbine technology there is no need to restrict public access in the vicinity of the project. The two turbines will not affect the use of the informal footpath along the sea defence wall to the breakwater or the use of the adjacent beach.

Additionally, the applicants report that;

The turbine has an on-board controller, like a computer, that monitors the conditions the turbine is operating in and reacts accordingly not just to extract the most power, but more importantly to operate in a way that is safe. If the wind reaches our limit operation speed, or even below it if the turbulence is excessive, the turbine stops of its own accord and positions itself to offer the least resistance to the wind.

.

If this system was to fail, the turbine also has a redundant safety controller that stops it reacting to vibrations.

On top of these autonomous systems, all Norvento turbines are monitored and commanded remotely from a Control Centre manned 24/7, which would contact the Port immediately if anything was out of order to take appropriate protection measures straightaway.

The Head of Building Control raises no concerns over the turbine foundations.

In terms of lightning strike, the applicants state that;

The nED100 design has been certified by TÜV according to IEC 61400-1:2005, including its lightning protection system, meaning it complies with the same standards that apply to big wind farms irrespective of its smaller size. Essentially it is formed by conductors that run from the tips of the blades all the way to the steel cage embedded in the concrete foundation, offering a clear path for the lightning to follow in the event of a strike. The system resistance, and therefore its ability to protect people, is measured every year as part of the annual preventive maintenance to ensure that the performance level still complies with the standard throughout the entire life of the turbine."

In view of the above no concerns are raised, subject to a condition to require appropriate computer control of rotor blades.

The site is just within the outer consultation zone for Hazardous substances currently held at in the harbour, close to the locks. However, as the proposal falls outside of the statutory thresholds and types of development for consultation and would not materially increase *the number of persons working within or visiting the notified area,* no concerns are raised.

The site is primarily served by Basin Rd South. The applicants report no abnormal loads are involved and minimal maintenance traffic. Arrangements for the construction site set up and transportation of the loads, including routes, are the subject of discussions with the Highway Authority and would ordinarily be reserved by condition.

Impact on amenity of neighbours and visitors in terms of noise, shadow flicker and interference to TV, radio etc

The wind turbines sit within the industrial and operational part of the port where noise and activity is a feature of port life. The closest staffed building is the Marine Management Organisation offices, some 80 ms NE of the nearest turbine, and to the south of the Pump House. The applicant's acoustic consultants conclude from their assessments using a range of methodologies that the noise likely to be experienced by occupiers of the offices falls within acceptable limits.

Turning to impacts on housing, the site is generally remote from any residential properties. The closest dwellings are between 332 and 348 ms away in the flat blocks at Locks Court and Coates Rd, respectively, in Grange Rd/Albion St, Southwick, across from the harbour mouth and port/industrial activities and the busy A259. Shoreham Beach housing is still further way, the nearest residences being over 700ms to the west across the harbour/river mouth.

The soundscape of the adjacent residential areas is certainly noisy in the day, not least due to the impact of the traffic on the A259, port operations and nearby industry. At night, however, it is much quieter. Noise, typically, carries with the prevailing South westerly winds to areas north east of the proposed site.

The potential noise impacts from the swish of the blades have been assessed by applicant's acoustic consultants following the standards and methodology recommended in National Practice guidance (ETSU-R-97) and allied Best Practice produced by The Institute of Acoustics and in consultation with the Environmental Health Officer. Background survey data was measured at 5 Colebrook Rd (575 ms) and 29 Victoria Rd (480 ms). Predictive modelling for these properties and also other residences seen as representative of the area (Locks and Coates Court and 27 Albion St (390 ms); 29 Victoria Rd (480 ms) and 5 Colebrook Rd (575 ms)) was undertaken. This modelling assumed worst case scenario, downwind of the turbines. In addition no account was taken of any acoustic shielding that may be provided by the natural topography of the land or other buildings between the noise source and receptor.

The relevant standards in ETSU-R-97 are;

Night time (between 23:00 and 07:00 hours); 43 dBA or 5 dBA above the prevailing background noise level, whichever is greater.

Quiet daytime hours' (evenings from 18:00- 23:00, Saturday afternoons between 13:00 and 18:00 and Sundays from 07:00 until 18:00). ; 35- 40 dBA or 5 dBA above the prevailing background noise level is set (whichever is the greater)

These are external noise levels and internal levels equate to a further reduction of some 10-15 dBA with a window open for ventilation and further significant reductions, with windows fully closed - the scale depends upon the quality of the sound insulation offered by the window and façade design.

The predictive modelling shows that in all scenarios, including the worst case, these national standards are met.

In reality the wind turbines will be audible outdoors at times but this would be against a generally nosier background during the day and the impact would not be unacceptably intrusive indoors at any time. However, it is appropriate to secure the standards are met in practice and appropriate complaints investigated and addressed by imposing a suitably worded condition.

Concerns raised over potential impacts on Shoreham Beach have been raised with the applicants and it is apparent that the residential area of the Beach falls below the predicted 35dBA contour and so no breach of the standards would occur at any time.

Small changes to the micro siting of the turbines would not materially affect the predictions.

The Environmental Health Officer concurs with this view.

In terms of potential vibration nuisance, the National Policy Statement for Renewable Energy Infrastructure advises *that there is no evidence that ground transmitted low frequency noise from wind turbines occurs at a sufficient level to be harmful to human health.*

Shadow flicker

Shadow flicker can occur when the sun passes behind the moving rotor of a wind turbine and casts a shadow on a narrow/constrained opening in a building such as a window, giving rise to a flick on and off effect for occupiers inside the building. Accepted guidance is that it can only affect properties within 130 degrees either side of north of a turbine within UK latitudes and has been proven to only occur within ten rotor diameters of a turbine.

Using computer modelling, the only property predicted to suffer significant shadow flicker (i.e. for more than 30 minutes per day and more than 30 hours per year) is the Marine Management Building. This could suffer more than 30 minutes flicker on 78 days in a year, totalling up to 50 hours a year.

No residential properties are shown as affected.

National Planning Practice Guidance advises;

"Modern wind turbines can be controlled so as to avoid shadow flicker when it has the potential to occur. Individual turbines can be controlled to avoid shadow flicker at a specific property or group of properties on sunny days, for specific times of the day and on specific days of the year. Where the possibility of shadow flicker exists, mitigation can be secured through the use of conditions"

The applicants have confirmed that the proposed turbines are able to be controlled by operational software which can be programmed to remotely switch-off the machines at required times and dates during the year in order to prevent significant shadow flicker effects otherwise known as mitigation is usually termed 'shut-down strategy'. They have also confirmed that they are willing to accept a planning condition on this basis. This may also appropriately incorporate a restriction to prevent the rotor blades from being reflective.

The National Policy Statement for Renewable Energy Infrastructure advises *that the maximum frequency of the shadowing effect from commercial scale wind turbines is less than 1 hertz, which is well below the frequency known to affect sufferers of epilepsy (which is above 2.5 hertz37).*

The approach of the consultants is considered sound. This and the conclusions on impacts are endorsed by the Environmental Health Officer. and are compliant with Government policy. On this basis the proposal would be acceptable but a precautionary condition is still recommended to address any relevant complaints received.

<u>TV and radio reception</u>

The applicant's consultants advise that they do not expect an impact to TV reception (especially given the other tall structures in the area) and were unable to consult with any organisation regarding the impact on TV reception.

They also advise that the transmissions from Church Green Transmission station would be unaffected.

They indicate that should reasonable complaints be received regarding reception, then they can investigate this and implement mitigation solutions under a planning

condition. They report that such a condition is occasionally considered necessary and is normally worded similarly to Noise and Shadow Flicker conditions, which ensure that operators act upon official complaints received by the planning authority.

Whilst there is no evidence to suggest that any disruption would occur, a precautionary approach is justified here in line with standard practice and a suitably worded condition is accordingly recommended.

Other impacts

A path runs adjacent to the site which serves in practice as a continuation of the public footpath to the east and is also close to the SUSTRANS coastal cycle route. The path and breakwater upon which it sits and to a lesser extent the beach itself, are popular with a variety of users including walkers and fisherman for their views, seaside location and fishing. Carrats café is also close-by and is a popular destination in itself and there is a car park close-by.

Construction impacts on recreational users would be relatively short lived and modest and relevant safety issues and alternative routes would be addressed in the Construction Management Plan.

The long term impact on recreational users from the operation of the turbines is likely to be more mixed. Some will appreciate the aesthetics of the structures for themselves and their intrinsic interest as a wind turbine which adds to their experience. Others may view the turbines as alien intrusions and a source of disturbance. Certainly, the café raises no objections and may view the turbines as an enhancement but for some they will degrade the outdoor experience and wild and wilderness atmosphere of the breakwater.

Any adverse impacts are, however, outweighed by the other compelling benefits.

Quality of the design and impact on local character, views and landscape/townscape, including National Park and setting of heritage assets

The turbines are tall structures in themselves and, together with their very distinctive shape and design which involves what can be relatively rapid motion of the rotor blades, naturally draw the eye, especially where sited in combination.

In terms of their intrinsic aesthetic qualities, wind turbines in general divide opinion; many see these as graceful, innovatory and benign; others as alien, awkward and obtrusive. They are, however, an increasing feature of the landscape on shore and off shore, though there are no turbines of comparable height and prominence anywhere in the locality at present, the nearest being the 140 ms tall single turbine at Ringmer/Glyndebourne. This will change in the near future when the recently approved Rampion scheme for 175 wind turbines, some 140 ms tall and 13 kms off the coast, is built out as this would provide a perceptible backdrop to the proposal,

clearly visible on the horizon from the land. The Rampion scheme is the only significant accumulative visual factor.

The precise siting of the current proposal at Shoreham Harbour appears to reflect operational and environmental constraints as any aesthetic consideration. The alternative option of having just one, but taller, turbine closer to the harbour/river mouth, by the eastern breakwater mouth to create what could be a more elegant, signature and iconic gateway feature to the Port has been dismissed by the applicants on visual and noise impact grounds, as well as practicality. In any event, the wind turbines will read as striking visual features which will make a statement about the port and enrich the skyline. Finishes may be controlled by condition. An interpretive board at the location would also add to understanding and enhance the visitors experience and may, likewise, be secured by condition.

The starting point for any assessment of the broader visual impact of the turbines is the fact that they would be located by the breakwater, and, so, on the very margins of the land mass and urban area. They are onshore to this extent but look out to sea similarly, and, would also, visually, reflect and respond to the off shore Rampion turbines. In any case, the flat topography of the site, shoreline, harbour and river and hinterland and immediate surrounds means that the turbines are somewhat exposed, with limited significant natural land form to screen or backcloth the structures.

That said, the proposed wind turbines are to be situated in an existing industrial and port area, where tall industrial structures and buildings and the masts of the boats themselves in the nearby marinas are also an established feature and form distinct and prominent elements puncturing any panorama incorporating the proposal. Indeed, Shoreham power station is sited just 500ms to the east and its relatively thick (around 5ms) chimney stands at 106 ms tall and the roof of what is, in itself, a very substantial building, is around 40ms tall. Several port lighting towers are also very close-by and have a height of up to 30 ms, albeit the tower structures are fine latticed obelisks and other lighting structures comprise slim columns. Additionally, the port contains numerous moving features such as cranes loading and unloading cargos and boats entering and leaving the harbour.

It is considered that this is not an environment which is unduly sensitive to this type of structure or motion associated with the rotor blades and the proposed wind turbines would not, in them, be out of place in such an industrial and working port landscape.

The visual impact on the more sensitive hinterland has been assessed in great detail by the applicants, focussing in on area of 5kms radius on the basis that outside of this zone, the turbines would, where visible at all, read as so small as to merge in to the urban form. This appraisal includes the closest residential areas (Southwick to the north of the A259 and Shoreham Beach to the west of the harbour/river mouth); heritage assets such as Shoreham Fort – an ancient monument which sits just across the river/harbour mouth to the west, local listed buildings in Southwick and Shoreham including Grade II listed Kingston Lighthouse and Conservation Areas, as well as

impacts on the setting of the South Downs National Park. The approach adopted is considered sound.

Starting with the main residential areas in Southwick and Shoreham Beach, these are relatively remote. However, the wind turbines would be visible from many of the residential properties south of the railway in Southwick and from Shoreham Beach, especially the blocks of flats, some of which are 4 storeys tall adjacent to Albion Street and 5 storeys by Emerald Quay. The visual impact on the outlook of such properties would, nonetheless, be relatively modest, especially filtered through the existing interposed buildings and structures and backcloth of other tall structures in and around the port and , of course, the Rampion off shore wind turbines visible on the horizon and the ever changing sea and sky.

The residential areas to the north of the railway would be still further away and subject to the same moderation as above. The closer properties would have their views largely blocked by the railway embankment and foliage and existing built form. Some glimpses of blade tips may be apparent from some vantage points but overall the impacts on the character and outlook of such areas are still minor.

In terms of impacts on heritage assets (including Listed Buildings Conservation Areas and Ancient Monuments), these have been assessed by the applicant's' consultants in the context of statutory requirements about direct harm and harm to setting in a professional manner. This acknowledges longer views available along the river from Shoreham.

No or *minor* impacts are recorded for all such heritage assets and this is accepted. It is noteworthy that English Heritage affirm this stance, including for Shoreham Fort, and consider *this is a suitable location for the wind turbines and that any minor harm that would result from the proposal is outweighed by the benefits of providing a source of sustainable energy for the port.*

Turning to impacts on the South Downs National Park, the turbines would be visible from several vantage points including eastern lower slopes of Lancing Hill adjacent to the River Adur Valley, Mill Hill, Mossy Bottom, the southern slopes of Thundersbarrow Hill, the summit and higher slopes of Cockroost Hill, western parts of Mount Zion and the summit, western and southern slopes of Round Hill. However, the visual impact is assessed as moderate to minor because of the distance, the backcloth of the urban coastal strip and presence of tall structures puncturing the panorama and would be perceived as a small component on the horizon. This is accepted and is underlined by the South Downs National Park Authority's comments who consider it *unlikely that the proposed wind turbines, in this instance, would have significant environmental effects or harmful visual impact on the purposes, special qualities and landscape setting of the SDNP*.

Views from the sea would be back-clothed by the urban coastal strip and the Downs.

There are no plans to light the turbine but this may be controlled by condition.

In these circumstances, the visual impacts are considered to be acceptable.

Wildlife and other environmental impacts, including archaeology and flood risk

An ecological appraisal has been undertaken by the applicants whose form and conclusions are accepted.

It is apparent that the actual site on the breakwater/shingle beach is relatively barren without any significant intrinsic wildlife interest.

The main potential impact is on birds, especially given that the Adur Estuary has been designated a SSSI due to the large expanse of saltmarsh and the estuarine plant communities, including cord grass, and the large intertidal mudflats within the estuary itself are of importance for a variety of wading birds. The records search from Sussex Biodiversity Records has also identified several records of important birds species within 2km of the site including peregrine falcon, hobby, black redstart and Mediterranean gull.

Whilst the habitats of such are unlikely to be affected by the proposal, the possibility of bird strike by the rotating blades of the turbine of birds migrating or commuting across the area is not precluded. However, the RSPB have advised the applicants that *the location and size of the turbines would not present a particular issue for the birds for which the Adur Estuary is important... Furthermore, the birds for which the Adur Estuary is designated are small waders, which are less susceptible to collision risk, given the number and size of turbines, I don't think that they would pose a significant conservation issue.*'

This is underlined by Natural England's formal view that the proposal *is unlikely to impact on the interest features of the SSSI.*

However, in line with the assessment's recommendations, it is appropriate to require that the site is monitored post development for 3 years to assess the number of bird strikes by a suitable condition. This will allow the development of suitable mitigation measures where necessary and will also help to further inform similar developments in the future.

The site falls within identified flood zone 3 on the Environment Agency map (1 in 20 year risk of flood). To be acceptable in such an area it has to be demonstrated that the proposal meets the sequential and exceptions tests set out in the National Planning Policy Guidance and allied Practice guidance and also will be safe and not increase flood risks elsewhere.

To this end, a Flood Risk Assessment has been submitted. The Exceptions and Sequential Tests are met in this case as the site is within the urban area, is directly

required to be close to the pump house for operational reasons and has wider sustainability benefits. Its site is also designated for such in the Draft JAAP. The submitted Flood Risk Assessment has demonstrated the main risk of flooding to the wind turbines is tidal but that this is low and the risk of overtopping by waves can be mitigated by flood resilient design. This would involve the structure being water tight and salt water resistant and electrical equipment will be placed above 7m AOD and over 1.6m above. This may be secured by condition.

The acceptability of the proposal in flood risk terms is underscored by the absence of any objection from the Environment Agency.

The breakwater upon which the turbines will be built is reclaimed land dating from 1957 and a desk top archaeological assessment has identified no archaeological interest. This is accepted.

Accordingly, the proposal is satisfactory in terms of the above environmental impacts.

Precedent of 1995 Public Inquiry decision on wind turbines

The current proposal inevitably draws comparisons with the 1995 scheme dismissed on appeal at a Public Inquiry.

However, it is apparent that in the intervening 20 years, the imperative of addressing climate change has assumed greater national importance and renewable energy, including through wind farms, expected to play a still greater role.

Whilst Government policy has, arguably dampened its enthusiasm for on shore wind farms, recently through proposed changes to the financial framework and planning policy (including seeking to ensure visual impacts are properly balanced against need and requirement for pre- application community engagement) and the Secretary of State signalled and used his powers to recover a number of appeals, the commitment remains strong.

In objective terms the current wind turbine proposal is much smaller in numbers and height of turbine than the previous scheme and its environmental impacts are accordingly much less. Technology and experience has also advanced considerably since 1995 to improve efficiency and reduce noise impacts.

As such the previous scheme has little bearing on the current proposal.

Conclusions

The proposal would make a modest but valuable contribution to help mitigate climate change. It directly serves the port and its location is logical and will assist with regeneration. No significant impacts on safety, telecommunications are expected and shadow flicker is restricted to one commercial user and may be addressed by suitable

mitigation. The turbines would be audible in some instances but no unacceptable impacts are predicted. The turbines would be visually striking close up but visual impacts on the most sensitive landscapes and heritage assets are minor. Indeed, the wind turbines would complement the port's architecture and be viewed against this backdrop and the Rampion off shore turbines. No significant impacts on wildlife or other environmental effects are anticipated. With the mitigation proposed, the proposal accords with national and local guidance and may be supported.

Recommendation

Grant planning permission subject to the following (summarised) conditions,

1) Implement within 3 years
2) Build in accordance with approved plans
3) Micro siting tolerance of 10 ms east/west.
4) Duration of planning permission 25 years from first export of electricity from turbines.
5) Submission and approval of decommissioning statement within one year of expiry of planning permission and implementation.
6) Submission and approval of scheme to repair or remove (including method statement and 24 timetable for any necessary site restoration) works any turbine not producing electricity for a continuous period of 12 months and implementation.
7) The development hereby permitted shall comprise up to 2 wind turbine generators which are three-bladed machines with a maximum blade-tip height of 35.4 metres. All of the blades of the wind turbines hereby permitted shall rotate in the same direction.
8) Submission and approval of details of finish and colour, no logo other than nED100 logo; provide interpretative facilities.
9) No lighting other than any infrared aviation lighting required for the safety of aircraft or other lighting required for marine safety or as agreed during construction as part of the construction method statement; maintenance or servicing.
10) The turbines shall not operate other than with the on-board controller (including redundant safety controller) in accordance with the manufacturers' instructions.
11) At least one month before the commencement of development, the developer shall provide the Local Planning Authority, the Ministry of Defence (MOD), Shoreham Airport and the Civil Aviation Authority (CAA) with relevant details.
12) All electrical cabling between the individual turbines and the pump house shall be located underground. Following installation of that cabling, the excavated ground shall be reinstated to its former condition within 3 months of the First Export Date.
13) No development shall take place until a construction traffic management plan and method statement (including access route for construction purposes and vehicle types and any diversions for paths) and traffic plan for maintenance;

has been submitted to and approved in writing by the local planning authority and shall not operate other than in full accordance.

14) Delivery to the site of construction materials, and of equipment for the construction of the development, shall only take place between the hours of 07:00 - 18:00 on Monday to Friday inclusive and 08:00 - 16:00 hours on Saturday. No such deliveries shall take place on any Sunday, Bank or Public holiday unless the local planning authority has been given at least two full working days' notice of the proposed delivery and has subsequently given its written approval to the delivery.

15) Submission and agreement of scheme for post development monitoring for 3 years to assess the number of bird strikes by and preparation, agreement and implementation of any necessary mitigation measures.

16) Construction of the development hereby permitted shall only take place on the site between the hours of 07:00 - 18:00 on Monday to Friday inclusive and 08:00 - 16:00 hours on Saturday. No such construction work shall take place on any Sunday, Bank or Public holiday. Works outside these hours shall only be carried out (a) with the prior written approval of the local planning authority or (b) in the case of an emergency or (c) for dust suppression works. Emergency works shall include, but not be limited to, works to make safe a turbine that is under construction.

17) No development shall take place until details of surface water drainage, which shall follow the principles of sustainable drainage as far as practicable, have been submitted to and approved by the local planning authority. The drainage shall be provided in accordance with the approved details before the First Export Date.

18) The approved development shall not take place other than in full accordance with Flood Risk Assessment in respect of the development, in particular the mitigation and resilience measures recommended.

19) None of the wind turbines hereby permitted shall be erected until details of a scheme to investigate and remedy any electro-magnetic interference to terrestrial television caused by the operation of the turbines has been submitted to and approved in writing by the local planning authority.

20) The wind turbines shall not operate other than with operational software to remotely switch-off the machines at required times and dates during the year in order to prevent significant shadow flicker as identified in the supporting documentation. None of the wind turbines hereby permitted shall be erected until a written scheme has been submitted to and approved in writing by the local planning authority, setting out a protocol for the assessment of shadow flicker and remediation as appropriate in the event of any complaint to the local planning authority from the owner or occupier of any occupied property. Operation of the wind turbines shall take place in accordance with the approved scheme unless the local planning authority gives its prior written consent to any variation.

21) Compliance with noise standards of ETSU-R-97 in accordance with Institute of Acoustic's "A Good Practice Guide to the Application of ETSU-R-97 for the

Assessment and Rating of Wind Turbine Noise including complaints procedure and remediation as necessary.

Background Papers

Representations by members of the Public
Consultation responses by stakeholders

16th March 2015

Local Government Act 1972
Background Papers:

As referred to in individual application reports

Contact Officers:

Pete Devonport
Principal Planning Officer (Development Management)
Portland House
01903 221345
Peter.devonport@adur-worthing.gov.uk

Schedule of other matters

1.0 Council Priority

1.1 As referred to in individual application reports, the priorities being:-
- to protect front line services
- to promote a clean, green and sustainable environment
- to support and improve the local economy
- to work in partnerships to promote health and wellbeing in our communities
- to ensure value for money and low Council Tax

2.0 Specific Action Plans

2.1 As referred to in individual application reports.

3.0 Sustainability Issues

3.1 As referred to in individual application reports.

4.0 Equality Issues

4.1 As referred to in individual application reports.

5.0 Community Safety Issues (Section 17)

5.1 As referred to in individual application reports.

6.0 Human Rights Issues

6.1 Article 8 of the European Convention safeguards respect for family life and home, whilst Article 1 of the First Protocol concerns non-interference with peaceful enjoyment of private property. Both rights are not absolute and interference may be permitted if the need to do so is proportionate, having regard to public interests. The interests of those affected by proposed developments and the relevant considerations which may justify interference with human rights have been considered in the planning assessments contained in individual application reports.

7.0 Reputation

7.1 Decisions are required to be made in accordance with the Town & Country Planning Act 1990 and associated legislation and subordinate legislation taking into account Government policy and guidance (and see 6.1 above and 14.1 below).

8.0 Consultations

8.1 As referred to in individual application reports, comprising both statutory and non-statutory consultees.

9.0 Risk Assessment

9.1 As referred to in individual application reports.

10.0 Health & Safety Issues

10.1 As referred to in individual application reports.

11.0 Procurement Strategy

11.1 Matter considered and no issues identified.

12.0 Partnership Working

12.1 Matter considered and no issues identified.

13.0 Legal

13.1 Powers and duties contained in the Town and Country Planning Act 1990 (as amended) and associated legislation and statutory instruments.

14.0 Financial implications

14.1 Decisions made (or conditions imposed) which cannot be substantiated or which are otherwise unreasonable having regard to valid planning considerations can result in an award of costs against the Council if the applicant is aggrieved and lodges an appeal. Decisions made which fail to take into account relevant planning considerations or which are partly based on irrelevant considerations can be subject to judicial review in the High Court with resultant costs implications.