

REFERENCE: P/23/473/RLX

APPLICANT: RES Ltd. c/o Elliot Smith, Cedar House, Greenwood Close, Cardiff Gate Business Park, CF23 8RD

LOCATION: Upper Ogmore Valley Between Blaengwynfi, Nantymoel & Blaengarw in Bridgend & Neath Port Talbot CF32 8AH

PROPOSAL: Vary condition 2 of PEDW Ref DNS/3213662 (P/20/893/DNS) to increase the rotor diameter of the proposed wind turbines from 105m to 117m - the overall tip height of the wind turbines will remain as consented

RECEIVED: 19 July 2023

BACKGROUND

On 28 September 2022, the Minister for Climate Change granted planning permission, subject to conditions, for a development comprising seven horizontal axis wind turbines (four with a maximum tip height of 149.9m and three with a maximum tip height of 130m), improved site entrance, new access tracks, crane hardstanding, control building and substation compound, electricity transformers, underground cabling, energy storage containers, drainage works and upgrades to a forestry track and associated felling on land at Upper Ogmore between Abergwynfi, Blaengarw and Nantymoel in the county boroughs of Bridgend, Neath Port Talbot and Rhondda Cynon Taff.

A Secondary Consent under Section 16 of the Commons Act 2016 was also issued to de-register 16.81 hectares of common land at Mynydd Llangeinor Common, (CL26) and to offer in exchange an area of 16.81ha in a similar location.

The applications were considered under 62D of the Town and Country Planning Act 1990 (Development of National Significance (**DNS**)) and one under Section 62F of the Town and Country Planning Act 1990 (as amended by the Planning (Wales) Act 2015) in relation to the application made under Section 16 of the Commons Act 2006, respectively.

An Environmental Statement (**ES**) accompanied the DNS submission and comprised the following volumes: Volume 1: Non-technical Summary; Volume 2: Main Text; Volume 3: Figures, and Volume 4: Technical Appendices. The ES had been prepared using the following structure: Chapter 1: Introduction; Chapter 2: Design Evolution and Alternatives; Chapter 3: Proposed Development; Chapter 4: Planning and Policy Context; Chapter 5: Landscape and Visual; Chapter 6: Ecology and biodiversity; Chapter 7: Cultural Heritage; Chapter 8: Geology, Hydrogeology and Hydrology; Chapter 9: Traffic and Transport; Chapter 10: Acoustic; Chapter 11: Shadow Flicker; Chapter 12: Socioeconomic, Public Access, Land Use; and Chapter 13: Schedule of Mitigation.

The ES was found to contain the level of information identified in Regulation 17 and Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 and was therefore declared complete for the purposes of those Regulations and the determination of the Application.

The proposed Upper Ogmore Wind Farm and Energy Storage Facility would be located on agricultural land to the south of the A4107, and situated between Blaengwynfi, Nantymoel and Blaengarw. A small portion of the Application boundary, relating to off-site access upgrades on an NRW forestry track, is located in Neath Port Talbot. The location of the proposed development is illustrated in Figure 1 below.

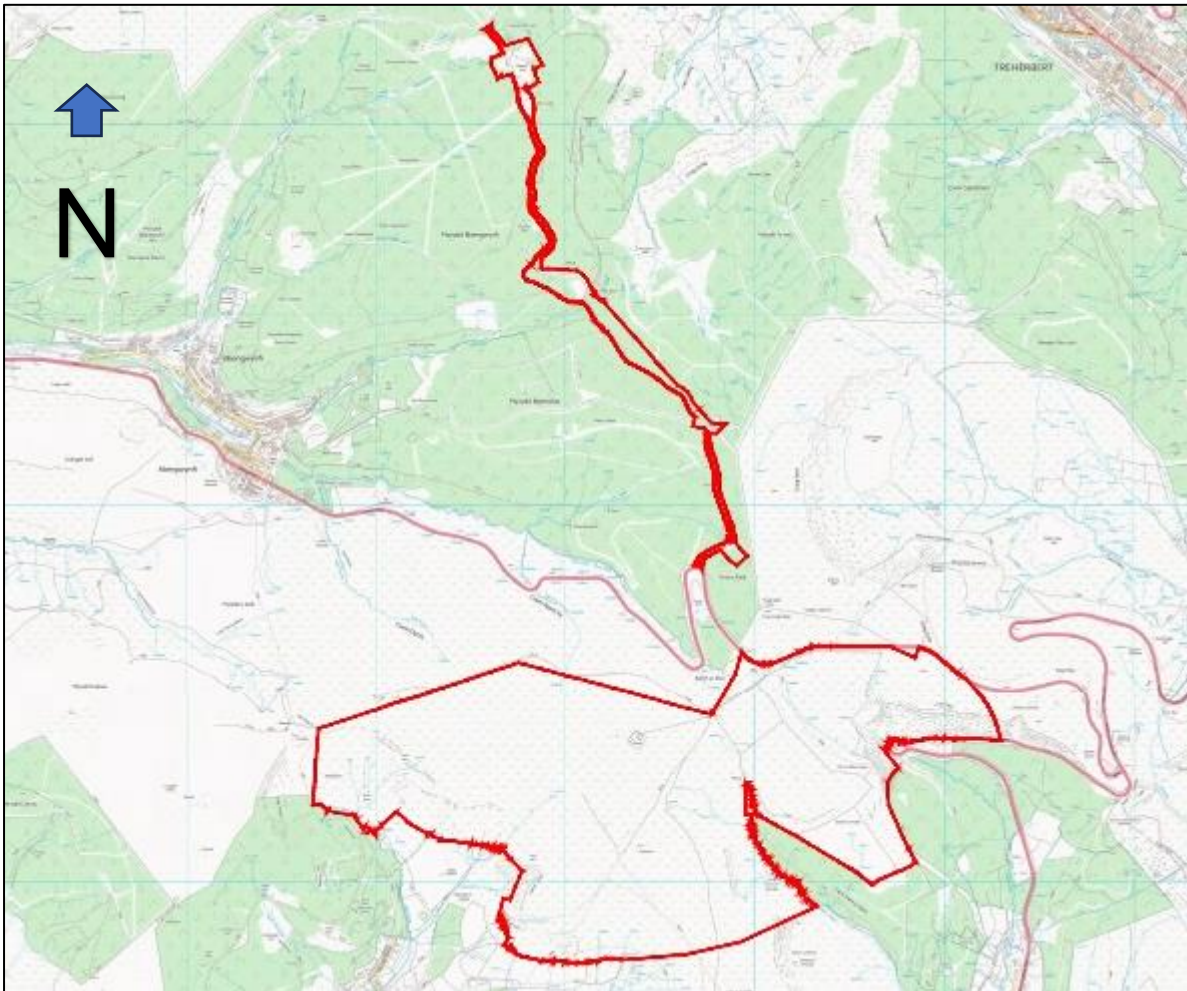


Figure 1 Application Site Boundary

The Application site covers an area of approximately 380.6 hectares (ha), around 362ha of which is located within Bridgend and some 18.6ha in Neath Port Talbot. It is centred on the summit of Werfa, from which point the land plateaus, sloping gently down in all directions though only marginally to the northern boundary which follows the administrative boundary across the upland.

The plateau drops sharply at the valley edges, with small watercourses draining the site to both the south-east and south-west. The land comprises primarily upland grassland used for rough grazing. The Application site boundary adjoins coniferous plantations to the east, west and north, although there is no woodland on the site save for that around the forestry access track. Much of the Application site is designated as registered common land. Being unenclosed upland grazing, most of the site is open access land under the provisions of the Countryside and Rights of Way Act 2005 (CROW Act), except for the enclosed pastures in the east. The land includes a network of public rights of way that traverse the site, as well as a bridleway.

The site is within relatively close proximity to operational wind farms including: Llynfi Afan immediately to the west of the site incorporating 12 No. wind turbines; Pant-y-Wal/ Fforch Nest some 5.8km to the south-east comprising 29 No. turbines; and the 76 No. wind turbine scheme at Pen y Cymoedd which is located some 6.5km to the north. The summit of Werfa features an OS trig point and two communications masts within a fenced compound that is accessed via a track from the A4107 and serviced by a low-voltage overhead power line on wood poles which runs from the Garw Valley. A series of vertical axis wind turbines were formerly located to the south of the masts, but only the foundations of these wind turbines now remain.

The north-eastern boundary follows the A4107, which connects the Afan Valley with the A4061, which in turn connects the Ogmere Valley with the Rhondda Valley. The planning Application boundary also includes 3.6km of forestry track, with an area of 22ha, to the north of the site, which will be used as part of the abnormal load access route. This existing forest track runs between stands of commercial conifer plantation and is managed by NRW.

There are no land-use allocations affecting the Application site. The site is however located within a non-statutorily designated Special Landscape Area (**SLA**). The Brecon Beacons National Park is located approximately 12km to the north of the site and the Rhondda Landscape of Special Historic Interest is located to the north on the opposite side of the A4107.

The consented scheme comprises 7 No. three-bladed horizontal axis wind turbines that would effectively constitute an extension to the operational Llynfi Afan wind farm constructed on land to the north and west of the Application site. Four (4) of the turbines would have a maximum tip height of 149.9m, with three (3) turbines incorporating a maximum tip height of 130m. The submission indicated that, in total, the seven (7) turbines proposed would have an installed capacity of approximately 25.2MW

The permission incorporates both the wind farm and the Energy Storage Facility (**ESF**). Although a detailed layout has been consented, the Application proposed some flexibility in respect of the micro-siting of the wind turbines and routes of on-site access tracks and associated infrastructure. Specifically, 50m flexibility was approved for infrastructure positioning to assist in the mitigation of any potential environmental effects. This would not encroach into environmentally constrained areas but could, for example, assist in avoiding unrecorded archaeological features which might be revealed during construction. Micro siting would also minimise and mitigate the impacts upon nearby telecommunications infrastructure.

A new site access was approved on the southern side of the A4107. No construction traffic is proposed to enter the site from the south along the A4061, (BCBC). A Construction Traffic Management Plan (CTMP) will be submitted for approval prior to construction commencing. It is anticipated that construction of the Wind Farm would take 10 months. Construction of the ESF would take approximately 6 months which, due to grid constraints, is likely to take place at a later date than the Wind Farm.

Construction works are proposed to take place between the hours of 0700-1900 Monday to Friday and 0700– 1300 on Saturdays, although those matters would need to be controlled via a planning condition and thus addressed later in this Report.

The consent is temporary with an operational lifetime of approximately 35 years from the date of commissioning, after which the above ground infrastructure would be removed and the land reinstated. The Application was supported by a unilateral undertaking which, amongst other things, set out a series of obligations in respect of ecological enhancements.

PROPOSED DEVELOPMENT

This Application seeks to amend the rotor diameter of four of the approved wind turbines from 105m to 117m. The overall tip height of the wind turbines will not be affected and shall remain as consented. Submitted under S73, it seeks to vary condition 2 of DNS/3213662_DNS and substitute drawing Figure 3.2 Wind Turbine Elevation with the revised design. Extracts of the drawings (approved/proposed) are reproduced below:

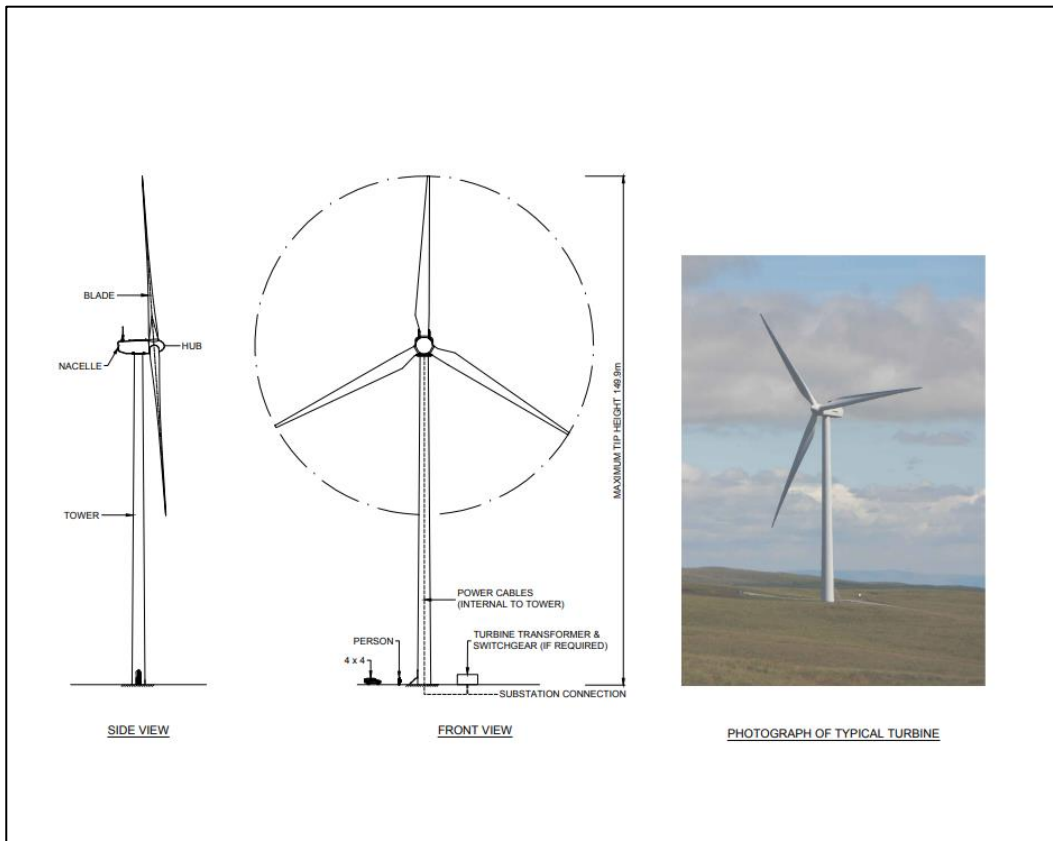


Figure 2 – Elevation of Turbine As Approved

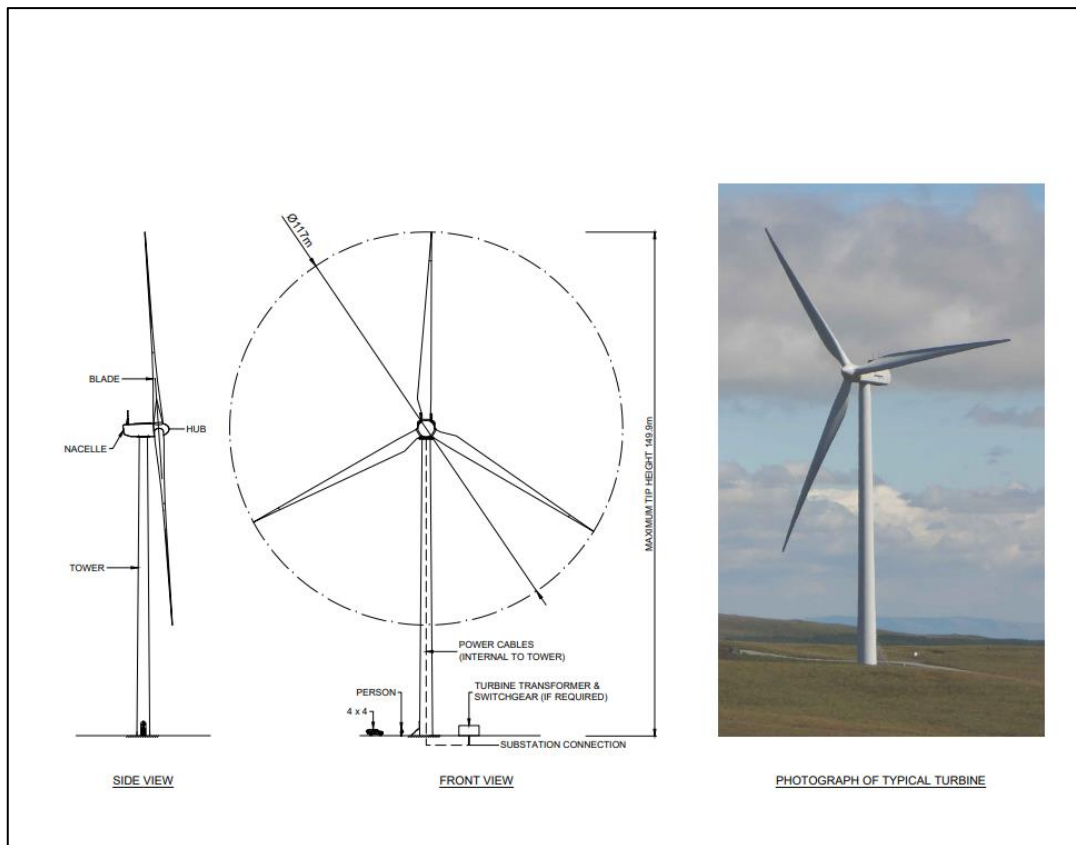


Figure 3 – Elevation of Turbine – As Proposed

To allow an increase in the rotor diameter from 105m to 117m without increasing the overall height of the turbine (149.9m), the hub/nacelle will be 90m from the pad level opposed to 99m on the consented scheme.

This Application has been accompanied by the following documents:

- Environmental Statement
- Design and Access Statement
- Appendix 1 – Upper Ogmere Wind Farm Decision Letter
- Appendix 2 – Updated Figure 3.2 (Revised turbine elevation)
- Appendix 3 - Landscape and Visual Appraisal
- Appendix 4 – Abnormal Load Route Assessment
- Appendix 5 – Acoustic Assessment; and
- Appendix 6 – Shadow Flicker & Reflected Light Assessment

RELEVANT HISTORY

APPLICATION/APEAL NUMBER	APPLICANT	PROPOSAL	DECISION AND DATE
P/01/887/FUL	Amec wind	Wind Farm 19 Turbines 2 Monitoring Masts, Access, Building Etc (With Environmental Impact Assessment)	Refused on 19 th March 2002
APPEAL REF: A/02/1097582	Amec Wind	Appeal against the refusal of planning permission P/01/887/FUL for a wind farm comprising the erection of 11 wind turbines, 1 wind monitoring mast (50m high), associated cable runs, construction and improvement of associated accesses, site buildings and site compound.	Appeal DISMISSED on 25 th August 2004 (Appeal Decision attached as Appendix A).
P/05/1701/FUL	Networks by Wireless	Install Communications Equipment to include 600Mm Microwave Dishes & One 300Mm Microwave Dish	Unconditional Consent on 26 th January 2006
P/11/352/SOR	G2 Energy	The proposal related to the erection of a single 500 kVA wind turbine with a maximum tip height of 78 metres. G2 were seeking a 'screening opinion' as to whether the development required an Environmental Impact Assessment.	On 7 th July 2011, BCBC issued an opinion that an Environmental Impact Assessment was required.
P/16/546/FUL	RES Ltd	Erect a temporary meteorological mast with a maximum height of 81.5m for a period of up to 2 years	Temporary Consent issued on 13 th September 2016 requiring the mast to be removed from the site on or before 31 st December 2018.
P/18/213/ESO	RES Ltd	Request for scoping opinion for proposed wind farm of 8 wind turbines and battery energy storage system	Scoping Opinion issued on 3 rd May 2018
P/18/901/RLX	RES Ltd	Application to vary condition1 of P/16/546/FUL to extend the period of the temporary permission until 30 th June 2019	Consent Issued on 8 th January 2019.
P/19/859/RLX	RES Ltd	Application to vary condition1 of P/18/901/RLX to extend the period of the temporary permission until 31 st March 2020.	Consent Issued on 28 th January 2020.
P/20/893/DNS	RES Ltd	Development comprising seven horizontal axis wind turbines (four with a maximum tip height of 149.9m and three with a maximum tip height of 130m), improved site entrance, new access tracks, crane hardstanding, control building and	Local Impact Report submitted to PEDW on 4 th February 2021.

		substation compound, electricity transformers, underground cabling, energy storage containers, drainage works and upgrades to a forestry track and associated felling	Permission granted by PEDW on 28 th September 2022.
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CONSULTATION RESPONSES

Ogmore Valley Community Council: No comments received.

Maesteg Town Council: Objected based on access and negative impacts to the local environment.

Transportation Officer (Highways): No objections.

Biodiversity and Policy: No additional observations.

Land Drainage: No objection subject to conditions.

Shared Regulatory Services – Neighbourhood Services: No objection subject to conditions.

Natural Resources Wales: We have no objection to the proposed development

The Coal Authority: No objections.

Ministry of Defence: The MOD has, in principle, no objection to the proposed increase of the rotor diameters of the wind turbines from 105m to 117m and reduction in hub heights. However, the principal safeguarding concern of the MOD with respect to this development is the introduction of a physical obstructions to air traffic movements with the Low Flying Area 7 (LFA 7). To address this potential harm, it is requested that any consent issued is subject to conditions requiring:

- the submission, approval and subsequent implementation of an aviation lighting scheme; and
- the submission of sufficient data to allow the development to be suitably charted.

Rhondda Cynon Taff: The LPA notes that this Application seeks approval for an increase in the permitted rotor diameter of 12m, to a maximum of 117m, with no increase to the overall turbine tip height.

The nearest settlement within the RCT administrative area to the development is at Cwmparc, which at its closest point is approximately 891m to the north-east of the development boundary. It is noted that Appendix 3 of revised ES refers to the Landscape and Visual Impact Assessment (**LVIA**) conclusions that there would be “significant effects on sensitive visual receptors up to 4.8km from the proposed development, with effects judged as major being limited to sensitive receptors within 2km” – which would include the settlements of Ton Pentre, Gelli and Treorchy further to the east and north-east.

However, it is considered that any distant views from the aforementioned settlements towards the development - particularly those turbines nearer to RCT on the western part of the site - are unlikely to be affected to any meaningful degree by the change in rotor diameter. Therefore, the LPA has no objection to this Section 73 application.

PUBLICITY

The Application has been advertised on site.

Neighbours have been notified of the receipt of the Application.

The period allowed for response to consultations/publicity has expired.

REPRESENTATIONS RECEIVED

The Owner/Occupier of 10 Llanharan Terrace, Nantymoel has objected to the development for the following reasons:

1. Visual Impact
2. Noise
3. Shadow Flicker
4. Open Access Restrictions
5. Compromise wildlife habitats
6. Telecommunication and radar signal interference
7. Detrimental impact on visitors viewing the Ogmere and Vale of Glamorgan

COMMENTS ON REPRESENTATIONS RECEIVED

Points 1, 2, 3, 5 and 7 will be considered in the appraisal section of this report as they align with the main considerations in the determination of the Application.

In providing evidence as part of the DNS submission, the applicant company indicated that grazing and public access would continue around the wind farm infrastructure once the construction works have completed. To compensate for the loss of common land that will be used to accommodate the development, some 16.81 hectares of replacement land would be available from the start of the construction period.

The BT Group submitted a written representation objecting to the original DNS application on the basis that it would have an adverse impact upon an existing 'Telecoms Tower' that forms part of a commercial network and is also proposed to be part of the emergency services network for the Home Office.

Prior to the hearing sessions, a Statement of Common Ground signed by BT and the applicant was submitted to the Inspector withdrawing the objection but requesting that a planning condition be imposed to ensure that BT and the Home Office are consulted on the final layout of turbines through the micrositing process. Where possible, this process shall seek to minimise the impact of the turbines on the 'air to ground' radio coverage for emergency services utilising the BT telecommunications equipment at Werfa. No other evidence was considered to suggest that the turbines would have any other impact on telecommunications.

The issues raised by Maesteg Town Council are addressed in the appraisal section.

RELEVANT POLICIES

Local Policies

The Bridgend Local Development Plan 2006-2021 (**LDP**) was formally adopted by the Council in September 2013, within which the following policies and supplementary Planning guidance are relevant:

Policy SP2	Design and Sustainable Place Making
Policy PLA4	Climate Change and Peak Oil
Policy SP3	Strategic Transport Planning Principles
Policy PLA5	Development in Transport Corridors
Policy PLA9	Development Affecting Public Rights of Way
Policy PLA11	Parking Standards

Policy SP4	Conservation and Enhancement of the Natural Environment
Policy ENV1	Development in the Countryside
Policy ENV3	Special Landscape Area
Policy ENV5	Green Infrastructure
Policy ENV6	Nature Conservation
Policy ENV7	Natural Resource Protection and Public Health
Policy SP5	Conservation of the Built and Historic Environment – Historic Landscapes
Policy SP6	Minerals
Policy SP8	Renewable Energy
Policy SP14	Infrastructure

SPG 19 Biodiversity and Development – A Green Infrastructure Approach. Sustainable Energy

SPG 20 Renewables in the Landscape including Landscape Character Assessment for Bridgend County Borough (July 2013)

National Policies

In the determination of a Planning application regard should also be given to the requirements of National Planning Policy which are not duplicated in the Local Development Plan. The following Welsh Government Planning Policy is relevant to the determination of this planning application:

Future Wales – the National Plan 2040

Planning Policy Wales Edition 12

Planning Policy Wales TAN 5 Nature Conservation and Planning

Planning Policy Wales TAN 8 Planning for Renewable Energy

Planning Policy Wales TAN 11 Noise

Planning Policy Wales TAN 12 Design

Planning Policy Wales TAN 18 Transport

Planning Policy Wales TAN 23 Economic Development

WELL-BEING OF FUTURE GENERATIONS (WALES) ACT 2015 (WBFG)

The Well-being of Future Generations (Wales) Act 2015 imposes a duty on public bodies to carry out sustainable development in accordance with sustainable development principles to act in a manner which seeks to ensure that the needs of the present are met without comprising the ability of future generations to meet their own needs (Section 5).

The well-being goals identified in the Act are:

- A prosperous Wales
- A resilient Wales
- A healthier Wales
- A more equal Wales
- A Wales of cohesive communities
- A Wales of vibrant culture and thriving Welsh language
- A globally responsible Wales

The duty has been considered in the assessment of this Application. It is considered that the development would be in accordance with the sustainable development principle through its contribution towards one or more of the Welsh Ministers well-being objectives, as required by section 8 of the WBFG Act.

THE SOCIO-ECONOMIC DUTY

The Socio-Economic Duty (under Part 1, Section 1 of the Equality Act 2010) which came

into force on 31 March 2021, has the overall aim of delivering better outcomes for those who experience socio-economic disadvantages.

The proposal also offers economic and social benefits. Specifically, it is estimated that the proposed development would involve a capital spend of £22.49 million (nominal prices), of which £8.18 million (nominal prices) will be realised in Wales. It is estimated that the 10-month construction phase would create or sustain an estimated 86 job years of employment, £3.442 million in wages and £2.93-£3.52 million in Gross Value Added (**GVA**) to the Welsh economy. The development is also expected to create or sustain the equivalent of 35 direct job years of employment, £1.49 million in direct wages and £4.58 million in direct GVA over its 35-year operational lifespan. The development would also provide significant tax revenues.

The aforementioned economic and social benefits must be considered in the determination of this Application.

APPRAISAL

Section 73 of the Town and Country Planning Act 1990 allows an applicant to apply to the Local Planning Authority for planning permission for the development of land without complying with conditions subject to which an unexpired previous planning permission was granted. If the application is granted, then a new planning permission will be issued separate to the previous planning permission which remains valid.

In determining section 73 applications, the Council shall consider only the question of the condition in question which in this case is condition 2 which lists the approved drawings.

The Inspector appointed by PEDW to review the DNS set out the following principal matters for consideration in the determination of that application and they will form the basis for the review of this submission with reference to the specific changes proposed:

- the effect of the proposed change to the turbine design upon landscape character and visual amenity
- the effect of the proposed change to the turbine design upon the living conditions of the occupiers of neighbouring residential properties, having particular regard to noise impact
- the effect of the proposed change to the turbine design upon ecological and biodiversity interests
- the effect of the proposed change to the turbine design upon cultural heritage assets
- the effect of the proposed change to the turbine design upon traffic flows and highway safety, particularly through the construction phase; and finally,
- whether any identified harm in respect of the above matters would be outweighed by the benefits and other matters in favour of the scheme, particularly the in-principle policy support for large scale wind farm development and the contribution towards renewable energy generation.

Landscape Character and Visual Amenity

The DNS application was supported by a comprehensive LVIA that considered the likely significant effects on the landscape and overall character of the area through describing: the landscape and visual baseline; the assessment methodology and significance criteria used in completing the impact assessment; the potential effects, including direct, indirect and cumulative effects; any mitigation measures proposed to address likely significant effects;

and the residual effects remaining following the implementation of mitigation.

Well-established methodology was used in the preparation of that LVIA document and no significant deficiencies were identified by the statutory or interested parties. It was also common ground that the LVIA was more site specific and up to date than the other available evidence, including that which informed Bridgend CBC's adopted Supplementary Planning Guidance Note (SPG) document entitled SPG20: Renewables in the Landscape.

Overall, the Inspector accepted that the development would clearly add to the overall number of turbines in the area and would intensify the local influence of wind energy development. It would however not extend the influence of wind turbines into currently unaffected areas, nor would it introduce wind turbines into a landscape type that is currently unaffected.

Concerns that the development would give rise to conflict with Policies SP4: Conservation and Enhancement of the Natural Environment and ENV3: Special Landscape Areas of the adopted Bridgend LDP were noted but it was the view that the open upland character would be largely unaffected despite the addition of vertical elements and associated infrastructure into the landscape. They would also be sited within close proximity to areas where vertical elements are already present, thus helping to accommodate the wind farm into the landscape.

In the policies of Future Wales, the site has been included within the 'Pre-Assessed Areas for Wind Energy' identified by Welsh Government (WG). Policy 17 clarifies that, within such areas, the WG has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. The Inspector was not aware of any evidence that would lead to an alternative conclusion. That same policy also goes on to state that there should be a presumption in favour of large-scale wind energy development in these areas, subject to the criteria set out in Policy 18. For the avoidance of any doubt, Policy 18 expressly omits any test in respect of landscape impacts for wind energy proposals located within the 'Pre-Assessed Areas for Wind Energy'.

The Council offered the view that additional turbines at the head of the Ogmere Valley would have potential for visual dominance and overbearing impacts for local communities and recreational users. However, whilst the Inspector accepted that the wind turbines would be an unavoidable presence in views from the communities at the northern end of the Ogmere Valley, with the effects of the proposed development locally significant, the development would generally be seen within the context of the existing wind farm developments and was satisfied that the development would not be overbearing or overly oppressive, either alone or in combination with other wind farm developments, for any community, individual property or recreational user.

To this extent, the development would not give rise to unacceptable adverse impacts and would be broadly compliant with the provisions of Policy 18 of Future Wales. For the same reasons, the Inspector found no fundamental conflict with Policies SP2 or Policy ENV18 of the adopted Bridgend LDP.

On the basis that the turbine height will be maintained with only the diameter of the rotors changed, any impact on landscape character and visual amenity would be negligible and, in any event, accepted by the site's location within one of the 'Pre-Assessed Areas for Wind Energy'.

Noise Impact

An assessment of the acoustic impact from both the construction and operation of the wind farm was undertaken, to take into account the identified nearest residential properties. In

terms of construction impacts, the evidence indicated that noise levels at the nearest residential properties could exceed construction noise criteria. However, mitigation measures were identified and secured through planning conditions.

The operational noise impact was assessed according to the guidance described in the 'The Assessment and Rating of Noise from Wind Farms' as recommended for use in relevant planning policy. The assessment also adopted the latest recommendations of the Institute of Acoustics 'Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise'.

The operational noise assessment for the proposed development acting in isolation was agreed with the respective environmental health departments of the local authorities. No exceedances of the limits for the proposed development operating alone were noted. It is however a requirement in ETSU-R-97 for noise limits to apply to noise arising from all wind farms in the area - the cumulative noise levels. The well-established guidance enables a cumulative operational noise assessment to be carried out either by comparing predicted cumulative noise levels with overall ETSU-R-97 limits or by establishing the remaining noise budget available for the site operating in isolation, once account is taken of the existing wind farms, and comparing this with the predicted noise levels with the site operating in isolation.

Both approaches require assumptions to be made about noise from the existing sites. The most conservative assumption is that all existing sites, built or unbuilt, are operating at their planning limits. However, this is highly unrealistic because there is no physical possibility of all existing wind farms operating at their limits at all locations, at all wind speeds and under all wind direction conditions where the normal ETSU-R-97 noise limits have been applied to an existing development. The least conservative assumption is that all existing consented wind farms are operating at their predicted noise levels, which already include a degree of conservatism. The controlling property approach is where the predicted levels are corrected upwards such that they just meet the limits at the most critical property.

The ES that accompanied the DNS submission set out the original approach with the results of the cumulative predictions compared with derived noise limits. This illustrated predicted exceedances at six locations for the day-time period. However, an example mitigation strategy was provided that would prevent those predicted exceedances occurring.

Concerns were however raised through the Local Impact Report (**LIR**) by this Council in respect of the cumulative noise assessment and those were shared by the Inspector who was of the view that the Council's approach was necessary to protect the local community from unacceptable noise impacts. The Inspector was however satisfied that the development would not cause material harm to the living conditions of the occupiers of nearby residential properties subject to conditions be imposed that would curtail the noise limits.

To accompany this Application to revise the turbine design, the Applicant company has submitted a review report that demonstrates that the predicted operational limits specified in the DNS consent can be met with the increased rotor blade. This is again with the proviso that a curtailment strategy such as that presented in Table 9 of the report entitled "Acoustic Assessment for Rotor Diameter Planning Variation at Upper Ogmere Wind Farm" is used.

Shared Regulatory Services (**SRS**) have no objection to a larger rotor diameter as the consented limits are not being varied. Once the choice of turbine has been finalised, any additional reports will need to demonstrate compliance with the levels specified in Tables A1 to A6 and B1 to B6 in the same format so that a direct comparison can be made at all wind directions and at all corresponding wind speeds. Therefore, as part of this variation Application, it is imperative that all planning conditions listed in the DNS/3213662_DNS

planning consent, specifically conditions 27 to 38 to control noise and shadow flicker, will need to be repeated.

Ecology and Biodiversity

Planning Policy Wales, Future Wales and TAN5 identify the planning system's role in helping reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms would be in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. It identifies the importance of supporting biodiversity, ensuring the protection of statutorily designated sites and protected and priority species, and to secure the enhancement of, and improvements to, ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks. Policy 9 of Future Wales provides specific advice in respect of such matters by identifying the importance of enhancing biodiversity and the resilience of ecosystems.

Policy 17 of Future Wales sets out a presumption in favour of large-scale wind energy developments, such as that proposed in this case, within the 'Pre-assessed Areas for Wind Energy' subject to the criteria of Policy 18 being satisfied. Policy 18 provides a criteria-based policy for renewable and low carbon energy development of national significance, such as that proposed in this instance, with criterion 3 seeking to prevent adverse effects on the integrity of internationally designated sites. Criterion 4 of that same policy seeks to prevent unacceptable adverse impacts on national statutory designated sites for nature conservation, protected habitats and species and criterion 5 requires such proposals to include biodiversity enhancement measures to provide a net benefit for biodiversity.

Policies SP4: Conservation and Enhancement of the Natural Environment, ENV4: Local/Regional Nature conservation Sites, ENV5: Green Infrastructure and ENV6: Nature Conservation of the adopted Bridgend LDP form part of the planning policy framework set out at a local level. These policies are supplemented by SPG19: Biodiversity and Development.

There are no sites designated for ecological interest on the Application site. The nearest internationally important site is the Blackmill Woodlands Special Area of Conservation (**SAC**) and SSSI located approximately 7.2km south of the site, and the nearest Special Protection Area (**SPA**) is the Severn Estuary SPA, located approximately 34km south-east of the site. There is no evidence to suggest that the development would have an adverse impact on sites of international importance. There are four statutory sites of nature conservation within 5km. These include Mynydd Ty-isaf SSSI, Cwm Cyffog SSSI, Blaenrhondda Road Cutting SSSI, and Cwm Du Woodlands SSSI. There are also eight local authority designated Sites of Importance for Nature Conservation (**SINCs**) within 2km of the site and an additional five sites that meet SINC criteria within Neath Port Talbot

The site has sensitive hydrological receptors including unnamed tributaries leading towards the Afon Garw, Afan Afan and Ogwr Fawr and has peat accumulations present within the locality of the site. The Mynydd Ty-isaf SSSI is located immediately north of the site to the north of the A4107 and has a slightly lower elevation than the Application site. Suitable prevention measures would therefore be necessary to prevent the movement of dust, mud and silty run-off from the site. Such measures could be adequately provided through a Construction Environmental Management Plan (**CEMP**) which could be secured through the imposition of a suitably worded planning condition. Subject to a comprehensive CEMP, the Inspector was satisfied that the aforementioned national and local sites would not be subject of unacceptable adverse impacts.

The ecological assessment submitted with this Application and the previous DNS application

considered the potential effects on habitats and protected species at each of the construction, operational and decommissioning phases of the development. Significant concerns had been raised through the LIRs in respect of the survey work. In particular, the Councils' ecologists (NPT and BCBC) contend that there is a lack of an up-to-date baseline to effectively assess the ecological impacts. The Phase 1 Habitat Survey generally accorded with best practice and the surveys were undertaken at an appropriate time of year. At the time the Application was accepted, the survey was within the age range of 2-3 years recommended by the CIEEM51 and was supplemented by site walkovers that enabled the Applicant's ecologists to confirm that land management practices and upland habitats had not materially changed in the intervening period. Similarly, whilst the National Vegetation Classification (**NVC**) Survey is some years old, the Phase 1 Habitat Survey confirmed no change of these habitats and the proposal aims to minimise impacts on areas of deep peat.

The Honey Buzzard Survey deviates from established guidance although it is generally agreed that the site provides suboptimal breeding habitat for the honey buzzard. Moreover, there are no records of honey buzzards being recorded locally. The Winter Bird Survey is again some years old. However, the age of the data is consistent with established guidance and has been partially updated by vantage point survey work undertaken in 2020.

Whilst a full update could have been submitted as part of this Application, it would have been unlikely to show any significant change given the nature of the site and the extent of the works being proposed. Impacts on bird species was likely to be minimal and could be mitigated by the combination of the Construction and Environmental Management Plan (**CEMP**) and Ecological Management Plan (EMP) and an obligation on the part of the developers to deliver an enhanced kestrel habitat off-site - a unilateral undertaking was submitted by the Applicant company to secure .

Bat survey work was undertaken prior to the submission of the DNS application and whilst that work is now out of date, the overall risk to all species of bat recorded at the site was assessed as being low. A condition was imposed requiring the turbine blades to be pitched out of the wind (feathered) to reduce their rotation speeds when idling.

The development would have an impact on peat bogs which are identified within national policy as features of significant nature conservation interest. However, no turbines would be located in the vicinity of deep peat (depth greater than 0.5m). The proposed site access would utilise an existing field entrance and avoid the deepest areas of peat. It is the only suitable location that is safe for access to the site from the public highway, without impacting on the Scheduled Ancient Monument GM246. The evidence submitted with the DNS indicated that the section of track that crossed a deeper area of peat (up to 0.8m deep) would have minimal hydrological impact on the peat bodies given the local topography, presence of the A4107 and proximity to watercourses. The track would also be floated over the peat with flow balancing pipes and large stone installed to maintain flows.

Despite concerns being raised by the Councils regarding the use of such methods of construction, NRW confirmed they were supportive of this approach. Overall, the Inspector concluded that the construction and operational phase ecological and ornithological effects would be localised and would not amount to unacceptable adverse impacts and there is no reason not to draw the same conclusion with regard to this Application given the scale of the proposed change and the opportunity to impose the same conditions on the new consent.

Cultural Heritage

The DNS application was supported by an Archaeological and Heritage Desk Based Assessment and an Assessment of the Significance of the Impact of the Development on the Historic Landscape. The evidence indicated that there would be a slight, but not

significant, impact on the Rhondda; and Margam Mountain Registered Historic Landscapes, a view shared by Cadw. Impacts on the scheduled monuments located within 5km of the Application site ranged from very slight to significant but could be adequately off-set by the preparation of a 'Monument Management Plan'. A condition was imposed in this regard. Overall, it was concluded that the development would not have any unacceptable impacts on heritage assets and, therefore, no material conflict with national or development plan policy.

Traffic and Highway Safety

The principal issues in respect of traffic and highway safety related to construction traffic.

This Application has been accompanied by an updated Abnormal Load Route Assessment to account for the increase in the turbine blade by 6.3m to 57.6m. The route would remain the same from Swansea Docks, which has been used previously for wind farm component deliveries. From Swansea Docks, the loads would travel east along the A483, joining the M4 at Junction 42 and leaving at Junction 43 onto the A465 heading 30km northeast towards Hirwaun. The route would exit the A465 onto the A4061 to the Pen y Cymoedd Wind Farm site access, before continuing along the Pen y Cymoedd Wind Farm / NRW Forestry tracks (off the public highway), exiting onto the A4107 eastbound for approximately 1km to the proposed site access.

Due to the increase in blade length, a swept path analysis of the critical turbine component delivery vehicles has been undertaken and there are only very minor changes from the previous planning submission. Works to the public highway will be limited to the temporary removal of street furniture. Widening of the existing NRW Forestry track (between the A4061 and A4107) will be required. This part of the development site is located in Neath Port Talbot and the implication of the localised widening on drainage and ecology would need to be considered by that authority under a separate s73 submission. The proposed access onto the A4107 will not be altered from that previously consented.

Subject to certain details being agreed and implemented through planning conditions, there would not be any unacceptable traffic or highway implications arising from the development. The development would therefore be generally consistent with the aims of national and local planning policy relating to such matters.

Other matters considered at the time of the DNS submission included shadow flicker. An assessment using a well-established methodology identified that there would be no inhabited houses within 1,100 metres of any proposed turbines, meaning that no shadow flicker is predicted. An updated assessment offers the same conclusion that the Upper Ogmere Wind Farm will not cause a material reduction to residential amenity owing to shadow flicker.

The Inspector in his report set out the benefits and other matters in favour of the development, principally being the significant in-principle policy support for developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs in both national and development plan policy, including at the time, the recently published Future Wales. Indeed, Future Wales states that, when determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales's international commitments and WG's target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.

The development is estimated to produce sufficient energy to power nearly 22,000 homes each year over its operational lifespan and to displace some 38,500 tonnes of CO₂ a year, equivalent to an estimated 29,200 newly registered cars. This represents a substantial

contribution to the production of energy from a renewable resource and to the reduction in greenhouse gas emissions. Such a contribution would clearly result in substantial environmental benefits and would be significant in the context of the Welsh Government targets and its commitment to address the climate emergency. In addition to such contributions, the battery storage facility provided by the development would ensure that the supply of energy generated by the development can be controlled to add greater flexibility to address issues between peak demand and supply. The benefits of an increased use of energy storage to provide a balance in this respect is recognised as a significant benefit in national planning policy.

In accordance with the aims of national planning policy, the contributions towards an efficient and clean supply of energy weigh substantially in favour of the development.

The proposal also offers economic and social benefits which have been referenced in an earlier section of this report.

CONCLUSION

This Application is recommended for approval based on the following:

The development and revised turbine design could be accommodated within the landscape in an acceptable manner. This reaffirms the site's positioning within a 'Pre-Assessed Area for Wind Energy' where the likely impacts on the landscape have been modelled and found to be acceptable. The visual effects, including cumulative impacts of the development would be locally significant. However, the turbines would be largely seen within the context of existing wind farm developments. The turbines would not be overbearing or oppressive for any community, individual or recreational user, either alone or in combination with other developments. To this extent, the development would not give rise to unacceptable adverse visual impacts or excessive shadow flicker and would therefore be broadly compliant with the provisions of Policy 18 of Future Wales and other LDP policies.

It has been demonstrated as part of this and the previous submission that cumulative noise impacts could be effectively mitigated through the imposition of suitably worded planning conditions. The development would not cause any material harm to the living conditions of the occupiers of nearby residential properties by reason of noise impact. The development would therefore be generally consistent with relevant development plan policies and the provisions of PPW.

The development would not have an unacceptable adverse effect on any internationally designated site. Furthermore, subject to conditions, there would be no unacceptable adverse impacts on nationally designated sites for nature conservation, habitats or species. There would clearly be some localised impacts, including those arising from the widening of the forestry track. Such impacts will however be assessed as part of the companion application that has been submitted to Neath Port Talbot Council. The Inspector previously concluded that given the scale of the works necessary, such impacts could not be mitigated to an acceptable level.

The development would clearly impact upon peat bogs which are of significant nature conservation interest. However, such impacts have been minimised through design and would be subject of mitigation measures secured through conditions. Ecological enhancement measures were secured through a unilateral undertaking and associated suite of planning conditions. Whilst the conditions will be re-imposed, it will be necessary for the Applicant to either submit a revised obligation or enter into a deed of variation.

The effects of the proposed development upon cultural heritage assets will be mitigated through planning conditions. However, subject to such mitigation, the impacts were

previously found to be acceptable and that has not changed. There would not, therefore, be any policy conflict in this respect. Similarly, the development would not give rise to any unacceptable traffic or highway safety issues subject to certain details being agreed and implemented through planning conditions. The development would therefore be compliant with the aims of national and local planning policy in this respect.

Importantly, the development would assist in realising WG’s support for developing large scale renewable and low carbon energy to meet future energy needs. Indeed, it would make a valuable contribution towards meeting renewable energy targets and would assist in combatting the climate emergency. The battery storage facility that forms an integral element of the overall scheme would also provide necessary flexibility that is supported by national policy. In addition, the development would offer social and economic benefits as outlined above. Such factors weigh substantially in favour of the development and significantly outweigh the localised harms identified.

RECOMMENDATION

(A) The Applicant enters into a S106 agreement or provides a revised unilateral undertaking in a form to secure the submission of a Biodiversity Enhancement Management Plan (**BEMP**) prior to the commencement of development. The BEMP would include a natural sediment management initiative and wider habitat creation works in the Upper Garw Valley, and Water Vole conservation works.

(B) The Corporate Director Communities be given delegated powers to issue a decision notice granting planning consent in respect of this proposal once the Applicant has entered into the aforementioned Section 106 Agreement, or has provided a revised unilateral undertaking in a form acceptable to the Council subject to the following conditions:

1	<p>The development shall begin not later than five years from the date of this decision.</p> <p>Reason: To conform with the requirements of Section 91 of the Town and Country Planning Act 1990.</p>
2	<p>The development shall be carried out in accordance with the following list of approved plans and in accordance with the recommendations and measures contained within the following approved supporting documents:</p> <ul style="list-style-type: none"> • Figure 1.2 Planning Application Boundary, Drawing No: 02959D2405-03 • Figure 2.2 Turbine Layout, Drawing No: 02959D2227-04 • Figure 3.1 Infrastructure Layout, Drawing No: 02959D1001-03 • Figure 3.2 Wind Turbine Elevation, Drawing No: 02959D2903-01 Revision 1 • Figure 3.3 Wind Turbine Foundation, Drawing No: 02959D2303-01 • Figure 3.4 Crane Hardstanding General Arrangement, Drawing No: 02959D2302-01 • Figure 3.5 Access Track Typical Details, Drawing No: 02959D2301-01 • Figure 3.6 Substation Building and Compound, Drawing No: 02959D2230-01 • Figure 3.7 Energy Storage Layout Plan, Drawing No: 02959D2217-02 • Figure 3.8 Energy Storage Elevations, Drawing No: 02959D2218-02 • Figure 3.9 Site Entrance, Drawing No: 02959D2407-01 • Figure 3.10 Temporary Construction Compound Layout Plan, Drawing No: 02959D2237-02 • Figure 3.11 Indicative Borrow Pit Details, Drawing No: 02959D2235-01 • Figure 3.12 Cable Trench Details, Drawing No: 02959D2241-01 • Figure 9.3 Forestry Track Widening Details 1-12, Drawing No: 02959D2404-04 • Figure 9.4 Typical Forestry Track Widening Detail, Drawing No: 02959D2304-01. • Figure 12.2b Common Land Swap Plan, Drawing No: 02959D2223 – Revision 6.

	Reason: To ensure that the development is carried out in accordance with the approved documents, plans and drawings submitted with the application.
3	<p>The permission hereby granted shall expire 35 years from the date when electrical power is first exported ('First Export Date') from the development to the electricity grid network. Written confirmation of the First Export Date shall be provided to the Local Planning Authority no later than one calendar month after this event.</p> <p>Reason: In the interests of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
4	<p>Within 35 years and six months following the date of first export, or within six months of the cessation of electricity generation by the facility, whichever is the sooner, the turbines and all associated infrastructure and works hereby approved shall be removed from the site and the land returned to its former agricultural status, in accordance with a decommissioning and site restoration scheme which has first been submitted to and approved in writing by the Local Planning Authority. The decommissioning plan shall include pollution control measures. All existing and new planting implemented as part of the approved scheme shall be retained. The developer shall notify the Local Planning Authority in writing no later than one month following cessation of power production. The approved restoration scheme shall be implemented in full within 12 months of the cessation of electricity generation.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
5	<p>If any wind turbine fails to produce electricity to the grid for a continuous period of 12 months, the wind turbine and its associated ancillary equipment shall be removed from the site within a period of 6 months from the end of that 12-month period.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
6	<p>No wind turbine shall be erected and no external transformer unit installed until details of the make, model and external appearance (including colour and surface finish) of the wind turbines and any unit transformer housing have been submitted to and approved in writing by the Local Planning Authority. The development shall be carried out and retained in accordance with the approved details.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
7	<p>All wind turbines blades shall rotate in a clockwise direction.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
8	<p>Notwithstanding the design or colour approved by the Local Planning Authority pursuant to Condition No.6, above, all wind turbines shall be of a 3 bladed configuration and shall be of a semi-matt finish and shall not display any prominent name, sign, symbol or logo on any external surfaces.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP</p>

9	<p>Except during installation and maintenance, the turbines shall not be illuminated. There shall be no permanent illumination on the site at any time.</p> <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
10	<p>Subject to the allowance for micro-siting provided by this condition, the turbines shall be erected at the coordinates indicated on Figure 2.2 Turbine Layout (Reference: 02959D2227-04).</p> <ol style="list-style-type: none"> I. Any variations to the indicated position of any turbine(s) shall be permitted by up to 50m in any direction, subject to the written approval of the Local Planning Authority. II. In determining the final position of the turbines, the developer must consult BT and, subject to substantive responses to that consultation being provided within 30 days, shall have due regard to minimising impacts of the turbines on delivery of the Emergency Services Network. Within 30 days of receipt of BT's consultation responses, the developer shall provide a written explanation of the reasons for the final micro-siting of the Turbines and how any BT consultation responses have been taken into account. III. A plan showing the position of the turbines as built shall be submitted to the Local Planning Authority within one month of the first export date. <p>Reason: In the interest of the character and appearance of the area - Policies SP2, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
11	<p>No development shall take place until the proposed means of access onto the A4107 has been laid out as detailed on Drawing No: 02959D2407-01. The means of access shall be completed in permanent materials for a distance of no less than 20m from the edge of the classified route A4107.</p> <p>Reason: In the interest of the character and appearance of the area and highway safety - Policies SP2, SP3, SP4, ENV3 and ENV18 of the adopted Bridgend LDP.</p>
12	<p>Notwithstanding the details approved under Drawing No: 02959D2407-01, no development shall commence until the proposed means of access onto the A4107 has been laid out with visibility splays of 2.4m x 120m in both directions.</p> <p>Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.</p>
13	<p>No structure, erection or planting exceeding 0.9m in height above adjacent carriageway level shall be placed within the required vision splay areas.</p> <p>Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.</p>
14	<p>No development shall commence until a scheme of road markings detailing the edge of carriageway across the junction bell mouth has been submitted to and agreed in writing by the Local Planning Authority. The approved scheme shall be completed in permanent materials in accordance with the approved layout prior to the approved development being brought into beneficial use.</p>

	Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.
15	<p>No development shall commence until a scheme for junction warning signs on the Eastbound approach to the proposed site access has been submitted to and agreed in writing by the Local Planning Authority. The approved scheme shall be completed prior to the approved development being brought into beneficial use.</p> <p>Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.</p>
16	<p>No works shall commence on site until a scheme of temporary traffic management, including traffic speed reduction measures on the classified route A4107 at and on the approaches to the proposed site access, has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be implemented prior to construction of the proposed access and retained during the construction of the proposed development.</p> <p>Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.</p>
17	<p>Details showing the entrance/ gates set back not less than 20 metres from the nearside edge of carriageway and the area between the gates and the edge of highway completed in permanent materials shall be approved in writing by the Local Planning Authority before any works commence. The details shall be implemented in accordance with those approved by the Local Planning Authority.</p> <p>Reason: In the interests of highway safety - Policies SP2, SP3 and ENV18 of the adopted Bridgend LDP.</p>
18	<p>No development shall take place, until a Construction Transport Management Plan ("CTMP") has been submitted to and approved in writing by the Local Planning Authority. The approved CTMP shall be adhered to throughout the construction period and shall provide for:</p> <ul style="list-style-type: none"> a) The routing of HGV construction traffic to and from the site in order to avoid the A4061 south of its junction with the A4107 and the A4063 south of its junction with the A4107; b) details of the number and frequency of HGV movements along the A4107; c) the parking of vehicles of site operatives and visitors; d) loading and unloading of plant and materials; e) storage of plant and materials used in constructing the development; f) wheel washing facilities; g) measures to control the emission of dust and dirt during construction; and h) the provision of temporary traffic and pedestrian management along the A4107. <p>Reason: In the interests of highway safety - Policies SP2 and SP3 of the adopted Bridgend LDP.</p>
19	<p>No development, including any vegetation clearance or tree felling, shall take place until a Construction Environment Management Plan ("CEMP") has been submitted to and approved in writing by the Local Planning Authority. The development shall only be carried out in strict accordance with the approved CEMP. The CEMP shall address the</p>

	<p>following:</p> <ul style="list-style-type: none"> i. Noise and vibration associated with the construction of the development, in accordance with British Standard 5228, 2009: Code of Practice for Noise and Vibration Control on Construction and Open Sites - Part 1 - Noise, Part 2 –Vibration; ii. The management of foul and surface water, temporary and permanent drainage details and details of the hydrological and hydraulic calculations to control flow rates; iii. The protection and conservation of soil in order to prevent pollution of the water environment, including details of the pollution prevention techniques to be deployed during the construction and restoration phases; iv. Details of the timing and methods of works for cable trenches and foundations; v. Borrow pit management arrangements; vi. Dust management arrangements; vii. Arrangements for the disposal of surplus materials; viii. A construction noise management plan, including identification of access routes, locations of material laydown areas, equipment to be employed, operations to be carried out, mitigation measures and a scheme for the monitoring of noise; ix. Temporary site illumination, including measures to reduce light-spill onto sensitive ecological receptors; x. Access arrangements from the access track onto the A4107 which shall include the maintenance of the existing asphalt surface for the first 20 metres measured back from nearest edge of metalled carriageway, the creation and maintenance of visibility splays and temporary speed reduction measures within the vicinity of the track exit; xi. Arrangements for wheel cleaning facilities and keeping the site access onto the A4107 and adjacent public highway clean; xii. Details of forestry track widening, including layout plans; xiii. Arrangements for the protection of breeding birds, reptiles, water vole, and clubmoss populations on both the site and access track, including pre-construction surveys and mechanisms to take remedial action and monitor outcomes; xiv. Measures to minimise and where possible avoid impacts on areas of wet modified bog and deep peat (over 50cm in depth) on both the site and access track; xv. Details of the re-use of extracted peat with priority given to support existing peat resources and peat/ bog habitat; xvi. Methods and timescales for habitat reinstatement in any areas needed temporarily during the construction process; and xvii. A prescription and timeline for the removal of Japanese knotweed from the vicinity of the access track. <p>Reason: In the interest of highway safety, the character and appearance of the area and nature conservation - Policies SP2 and SP3 of the adopted Bridgend LDP.</p>
20	<p>No development shall take place until a site investigation in respect of land stability has been carried out in accordance with a methodology first submitted to and approved in writing by the Local Planning Authority. The results of the site investigation shall be submitted to the Local Planning Authority before any development begins. If any land instability issues are found during the site investigation, a Report specifying the measures to be taken to remediate the site to render it suitable for the development shall be submitted to and approved in writing by the Local Planning Authority. Remedial measures shall be undertaken in accordance with the approved details prior to the commencement of the development.</p> <p>Reason: In the interests of highway safety - Policies SP2 and ENV18 of the adopted Bridgend LDP</p>
21	<p>Should any contaminated material be observed during construction which has not been previously identified, then development shall cease and the Local Planning Authority</p>

	<p>immediately informed. A desk study, site investigation and risk assessment to determine the nature and extent of the contamination should be undertaken in accordance with methodologies which have been first submitted to and approved in writing by the Local Planning Authority. The results of the desk study, site investigation and risk assessment, and a Report specifying the measures to be taken to remediate the site to render it suitable for the development, shall be submitted to and approved in writing by the Local Planning Authority. Remedial action, which may include measures to protect surface and ground water interests, shall be undertaken in accordance with the approved details prior to development recommencing.</p> <p>Reason: In the interest of public safety and nature conservation – Policies SP2, SP4, ENV6 and ENV7 of the adopted Bridgend CBC LDP.</p>
22	<p>No development shall commence until a scheme for the comprehensive and integrated drainage of the site, including the means of drainage from all hard surfaces and structures within the site and accesses to the local highway network, has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be implemented and retained for the duration of the construction works and operation of the development.</p> <p>Reason: In the interest of adequate site drainage - Policies SP2, SP4, ENV6 and ENV18 of the adopted Bridgend LDP.</p>
23	<p>No development shall take place until a scheme for the protection of public rights of way during the construction period, including safety signage and repair of damage caused during construction, has been submitted to and approved in writing by the Local Planning Authority. During the construction period the development shall be carried out in accordance with the approved scheme.</p> <p>Reason: In the interests of the protection of public rights of way - Policies SP2, SP3 and PLA9 of the adopted Bridgend LDP.</p>
24	<p>No development shall commence, including any vegetation clearance, until an Ecological Management Plan (“EMP”) has been submitted to and approved in writing by the Local Planning Authority. The EMP shall set out the management and monitoring arrangements for all relevant ecological features, set out detailed enhancement measures proposed and include timescales for implementation. The development shall be carried out in accordance with the approved details.</p> <p>The EMP shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> a) Description and evaluation of ecological features, present or to be created on site, to be managed; b) Details of the desired condition of features, present and to be created at the site, using attributes with measurable targets to define favourable condition; c) Aims and objectives of management; d) Ecological trends and constraints on site that might influence management and achieving favourable condition of the retained and new features to be created on site; e) Identification of appropriate management options for achieving aims and objectives, including management prescriptions; f) Details of the monitoring of habitats, species and conservation enhancement measures. Where the results from monitoring show that conservation aims and objectives of the EMP are not being met, the EMP shall set out how contingencies and/ or remedial action will be identified, agreed and implemented so that the development still delivers the fully functioning biodiversity objectives of the originally agreed scheme; g) Details of the body or organisation responsible for implementation of the plan, including

management and maintenance responsibilities of the EMP and ensure compliance with all relevant regulatory and other requirements, method statements and plans, and to report to the principal contractor and statutory consultees;

h) Preparation of a work scheme detailing the timescale for delivery of the initiatives identified within the EMP, including all species and habitat management and monitoring and habitat aftercare, and a five year rolling programme with specified timescales for each element;

i) Details of the periodic review of effectiveness of the EMP, with a written report submitted to the Local Planning Authority every 5 years, and any revisions to the plan to be agreed in writing by the Local Planning Authority prior to implementation.

The above shall be provided for the following initiatives:

i. Upper Garw Valley - Natural Sediment Management initiative and wider habitat creation works

- Contribute towards implementation of natural sediment management schemes in Upper Garw to reduce the quantity of excess fine sediment entering the river system and improve water quality.
- Slow down water-flow into the catchment.
- Implementation of measures at the head of the Garw Valley (the northern end of Cwm Garw) and along the western side of Mynydd Llangeinwyr.
- Measures shall include installation of gully blocks, channel stuffing and leaky barriers to reduce scour and siltation of watercourse and pools further down the catchment.
- Improvement of water quality, rewetting and reducing erosion of marshy grassland and bog habitats, improvement of habitat for water vole, breeding passerines (such as grasshopper warbler), reptiles and wetland invertebrates.
- Implementation of measures along Mynydd Llangeinwyr, including land which extends over 5.5km to the south of the wind farm, to include biodiversity gain through wetland habitat creation and the erection of kestrel boxes, with associated net benefits to species such as water vole and kestrel.

Locations of initiatives, as indicated on Drawing No.02959-RES_IMP-DREN-001, to be agreed in writing with the Local Planning Authority following feasibility work and optioneering study.

ii. Water Vole Conservation Works

- Objective of increasing the extent of optimal habitat for water vole within the application site and, in particular, land in the eastern part of the application area, increasing the size and resilience of the population.
- The feasibility of proposed water vole conservation measures shall be carefully considered and assessed. Measures to include localised water management measures such as gully blocks, channel stuffing, leaky barriers and stock management measures.
- Conservation measures to be submitted to and agreed in writing with the Local Planning Authority.

Locations of initiatives, as indicated on Drawing No.02959-RES_IMP-DREN-001 to be agreed in writing with the Local Planning Authority following feasibility work and optioneering study.

iii. Operational mitigation to reduce bird and bat strike

- Between dusk and dawn between 1 April and 31 October each year, all turbine blades shall be 'feathered' when wind speeds are below the cut in speed of the operational turbines. This shall involve pitching the blades to 90 degrees and/ or rotating the blades

	<p>parallel to the wind direction to reduce the blade rotation speeds below two revolutions per minute whilst idling.</p> <p>Reason: To maintain and improve the appearance of the area in the interests of visual and residential amenity and to promote nature conservation - Policies SP2, ENV5, ENV6 and ENV18 of the adopted Bridgend LDP.</p>
25	<p>No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been first submitted to and approved in writing by the Local Planning Authority.</p> <p>Reason: To identify and record any features of archaeological interest discovered during the works, in order to mitigate the impact of the works on the archaeological resource - Policies SP2, SP5, and ENV18 of the adopted Bridgend LDP.</p>
26	<p>No development shall take place until a Monument Management Plan covering the Designated Historic Assets within the application site has been submitted to and approved in writing by the Local Planning Authority. The Monument Management Plan shall include measures to protect and manage historic assets on site, proposals to improve access to the historic assets including details of interpretation/information panels and a programme of works. The site shall be developed in accordance with the approved Monument Management Plan.</p> <p>Reason: To mitigate the impact of the works on the Designated Historic Assets on site - Policies SP2, SP5, and ENV18 of the adopted Bridgend LDP.</p>
27	<p>Construction works which are audible at the boundary of any residential receptor shall not take place outside the hours of 8:00am to 18:00pm Monday to Friday, 8:00am to 1:00pm on Saturday. No construction work shall be conducted on Sundays or Bank Holidays. Outside of these hours, development shall be limited to turbine testing, commissioning works, emergency work and dust suppression.</p> <p>Reason: In the interests of the amenities of the area – Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
28	<p>Within 28 days of a written request from the relevant Local Planning Authority, following a complaint alleging shadow flicker from an occupant of a dwelling which lawfully existed or had planning permission at the date of this permission, the wind farm operator shall, at its expense, commission and submit a report to the relevant Local Planning Authority assessing the reported shadow flicker event(s). Where the relevant Local Planning Authority confirms in writing that the incident of shadow flicker is affecting the living conditions of the resident(s), the wind farm operator shall, within 21 days, submit for approval a scheme of mitigation to the Local Planning Authority. The scheme shall be designed to mitigate the event of shadow flicker and to prevent its future recurrence and shall specify timescales for implementation. The scheme shall be implemented as approved.</p> <p>Reason: In the interests of the amenities of the area – Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
29	<p>The rating level of noise emissions from the combined effects of the wind turbines hereby permitted (the wind farm) (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes, shall not exceed the values for the relevant integer wind speeds set out in Tables A1 to A6 and B1 to B6 (attached to these</p>

	<p>conditions). Noise limits for dwellings which lawfully exist or have planning permission for construction at the date of this consent but are not listed in the Tables attached shall be those of the physically closest location listed in the Tables unless otherwise agreed in writing by the relevant Local Planning Authority. The coordinate locations to be used in determining the location of each of the dwellings listed in Tables A1 to A6 and B1 to B6 shall be those listed in Table C.</p> <p>Reason: In the interests of the amenities of the area – Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
30	<p>Within 21 days from receipt of a written request from the relevant Local Planning Authority, following a complaint from the occupant of a dwelling which lawfully existed or had planning permission at the date of this consent alleging noise disturbance at that dwelling from either the operational Llynfi Afan site or the wind farm hereby approved, the wind farm operator of the development hereby approved shall, at its expense, employ an independent consultant approved by the relevant Local Planning Authority to assess the level of noise emissions from the turbines of the hereby approved wind farm at the complainant's property following the procedures described in the attached Guidance Notes.</p> <p>Reason: In the interests of the amenities of the area – Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP</p>
31	<p>The wind farm operator shall provide to the relevant Local Planning Authority the independent consultant's assessment and conclusions of the rating level of noise emissions undertaken pursuant to Condition No.30, including all calculations, audio recordings and the raw data upon which those assessments and conclusions are based. The data shall be presented in a format that can be independently verified by the relevant Local Planning Authority and demonstrates compliance with each of the Tables A1 to A6 and B1 to B6. Such information shall be provided within 2 calendar months of the date of the written request from the relevant Local Planning Authority, unless otherwise extended in writing by the relevant Local Planning Authority.</p> <p>Reason: In the interests of the amenities of the area – Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
32	<p>Where, following receipt of the independent consultant's noise assessment required by Condition No.30, the relevant Local Planning Authority is satisfied of an established breach of the noise limits set out in the attached Tables A1 to A6 and B1 to B6, the wind farm operator shall within 21 days of written notification by the Local Planning Authority, submit a scheme of mitigation for approval. The scheme of mitigation shall include measures to mitigate the breach, measures to prevent its future recurrence and a timetable for implementation. The scheme shall be implemented as approved and shall be retained thereafter unless otherwise agreed in writing by the relevant Local Planning Authority.</p> <p>Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP</p>
33	<p>Where a dwelling to which a complaint is related is not listed in Table C, the wind farm operator shall submit to the relevant Local Planning Authority for written approval proposed noise limits selected from those listed in the Tables A1 to A6 and B1 to B6 to be adopted at the complainant's dwelling. The rating level of noise emissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the</p>

	<p>relevant Local Planning Authority for the complainant's dwelling.</p> <p>Reason: In the interests of compliance-checking and the amenities of the area -Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
34	<p>The assessment of the rating level of noise emissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the relevant Local Planning Authority. The protocol shall include the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise emissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the relevant Local Planning Authority under Condition No.30, and such others as the independent consultant considers likely to result in a breach of the noise limits.</p> <p>Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
35	<p>Wind speed, wind direction and power generation data shall be continuously logged and provided to the relevant Local Planning Authority within 14 days of any such request and shall be in a format that will allow the relevant Local Planning Authority to enable checks to be undertaken to verify compliance with Tables A1 to A6 and B1 to B6 and in accordance with the attached Guidance Notes. Such data shall be retained for a period of not less than 24 months.</p> <p>Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.</p>
36	<p>For the purposes of demonstrating compliance with the levels stated in Tables A1 to A6 and B1 to B6, during the first 12 months of operation, the wind farm operator shall, at its expense, employ a consultant approved by the relevant Local Planning Authority to assess the level of noise emissions from the wind farm, according to a measurement protocol to be agreed with the relevant Local Planning Authority.</p> <p>Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP</p>
37	<p>In the event that the sound power levels of the proposed turbine model for installation are higher, or the turbine model is more tonal, than the candidate turbine used in the acoustic assessment in Chapter 10 of the Upper Ogmores Wind Farm & Energy Storage Facility - Environmental Statement, a revised noise assessment report shall be submitted prior to the erection of the turbines, demonstrating that the predicted noise levels still indicate compliance with the limits stated in Tables A1 to A6 and B1 to B6. Should the revised assessment show that the limits stated in Tables A1 to A6 and B1 to B6 will be exceeded, a scheme of mitigation shall be submitted to and approved in writing by the relevant Local Planning Authority, demonstrating how compliance with the limits state in Tables A1 to A6 and B1 to B6 will be achieved. The scheme of mitigation shall be implemented in full prior to the turbines being brought into beneficial use and shall be retained for the lifetime of the development.</p>

	Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP.
38	<p>No development shall commence until details of a nominated representative for the development to act as a point of contact for local residents (in connection with Condition Nos. 30-35), together with the arrangements for notifying and approving any subsequent change in the nominated representative, have been submitted to and approved in writing by the relevant Local Planning Authority. The nominated representative shall have responsibility for liaison with the relevant Local Planning Authority in connection with any noise complaints made during the construction, operation and decommissioning of the wind farm.</p> <p>Reason: In the interests of the amenities of the area - Policies SP2, ENV7 and ENV18 of the adopted Bridgend LDP</p>
39	<p>No turbines shall be erected until a scheme for the mitigation of impact of the wind turbines on the operation of Cardiff Airport primary surveillance radar (the “radar mitigation scheme”) has been submitted to and approved in writing by the Local Planning Authority. The development shall thereafter be operated fully in accordance with the approved radar mitigation scheme throughout the operational life of the development.</p> <p>Reason: To ensure no unacceptable impacts on radar operations - Policy 18 (8) Future Wales</p>
40	<p>Noise Planning Conditions - Tables of Noise Limits</p> <p>The limits in each of the six 60-degree sectors are based on the assumptions that the existing sites are operating at their predicted noise levels for each sector, with an additional 5 dB uncertainty added capped at the level set by limits in their planning conditions.</p> <p>The curtailment required to meet these limits, for the candidate turbine, results in an energy yield of 81.0848 GWh/annum, relative to the base case of no curtailment which results in a yield of 84.0000 GWh/annum. This reduction of 2.9152 GWh/annum would be the equivalent to a loss in the supply of renewable energy to some 770 homes each year (This figure is derived using the annual UK average domestic household consumption of electricity published by BEIS)</p> <p>Tables A1 – A6 - Noise Limits: Day-Time Hours 0700-2300</p>

Table A4 – Wind Direction >= 165 and < 225 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H2	27.5	27.5	27.5	27.5	27.5	28.4	30.4	30.7	30.7	30.7	30.7	30.7
H3	27.5	27.5	27.5	27.5	27.5	28.6	30.6	30.9	30.9	30.9	30.9	30.9
H4	27.5	27.5	27.5	27.5	27.5	27.8	29.8	30.2	30.2	30.2	30.2	30.2
H5	27.5	27.5	27.5	27.5	27.5	30.1	32.1	32.4	32.4	32.4	32.4	32.4
H6	27.5	27.5	27.5	27.5	27.5	29.4	30.6	27.6	28.6	29.8	29.8	29.8
H7	27.5	27.5	27.5	27.5	27.5	29.1	31.2	31.5	31.5	31.5	31.5	31.5
H8	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H9	27.5	27.5	27.5	27.5	27.5	30.6	30.5	27.5	28.7	29.8	29.8	29.8
H10	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H11	27.5	27.5	27.5	27.5	27.5	28.8	30.9	31.2	31.2	31.2	31.2	31.2
H12	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H13	27.5	27.5	27.5	27.5	27.5	31.0	30.4	27.5	28.7	29.8	29.8	29.8
H14	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H15	27.5	27.5	27.5	27.5	27.5	29.9	31.9	32.2	32.2	32.2	32.2	32.2

Table A5 – Wind Direction >= 225 and < 285 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	27.5	27.5	27.5	27.5	27.5	28.7	30.8	31.2	31.2	31.2	31.2	31.2
H2	27.5	27.5	27.5	27.5	27.5	28.4	30.4	30.7	30.7	30.7	30.7	30.7
H3	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H4	27.5	27.5	27.5	27.5	27.5	27.5	29.1	30.8	29.8	30.0	30.0	30.0
H5	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H6	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H7	27.5	27.5	27.5	27.5	27.6	28.7	30.0	33.4	30.4	30.0	30.0	30.0
H8	27.5	27.5	27.5	27.5	27.5	28.7	30.7	31.1	31.1	31.1	31.1	31.1
H9	27.5	27.5	27.5	27.5	27.5	27.5	27.7	27.5	28.1	28.1	28.1	28.1
H10	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H11	27.5	27.5	27.5	27.5	27.5	28.1	29.6	33.1	29.8	30.0	30.0	30.0
H12	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H13	27.5	27.5	27.5	27.5	27.5	27.5	29.3	28.3	28.4	29.7	29.7	29.7
H14	27.5	27.5	27.5	27.5	27.5	28.6	30.7	31.0	31.0	31.0	31.0	31.0
H15	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2

Table A6 – Wind Direction >= 285 and < 345 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	27.5	27.5	27.5	27.5	29.5	33.1	29.0	27.9	34.9	35.7	35.7	35.7
H2	27.5	27.5	27.5	27.5	27.5	28.4	30.4	30.7	30.7	30.7	30.7	30.7
H3	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H4	27.5	27.5	27.5	28.0	31.9	27.5	28.6	29.6	30.4	30.6	30.6	30.6
H5	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H6	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H7	27.5	27.5	27.5	28.9	32.2	27.5	28.6	29.5	30.3	30.5	30.5	30.5
H8	27.5	27.5	27.5	27.5	28.8	32.7	30.5	28.9	35.0	35.0	35.0	35.0
H9	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H10	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H11	27.5	27.5	27.5	28.8	32.1	27.5	28.6	29.6	30.4	30.6	30.6	30.6
H12	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H13	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
H14	27.5	27.5	27.5	27.5	29.2	33.0	28.5	27.9	34.7	35.5	35.5	35.5
H15	27.5	27.5	27.5	27.5	30.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2

Table B4 – Wind Direction >= 165 and < 225 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H2	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H3	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H4	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H5	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H6	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H7	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H8	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H9	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H10	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H11	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H12	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H13	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.4	33.4	33.4	33.4	33.4
H14	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H15	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0

Table B5 – Wind Direction >= 225 and < 285 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H2	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H3	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H4	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H5	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H6	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H7	33.0	33.0	33.0	33.0	33.0	33.0	33.6	34.0	34.0	34.0	34.0	34.0
H8	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H9	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H10	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H11	33.0	33.0	33.0	33.0	33.0	33.0	33.4	33.8	33.8	33.8	33.8	33.8
H12	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H13	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H14	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H15	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2

Table B6 – Wind Direction >= 285 and < 345 degrees

Property	Standardised 10 m Height Wind Speed (m/s)											
	1	2	3	4	5	6	7	8	9	10	11	12
	Noise Limit (dB LA90,10 min)											
H1	33.0	33.0	33.0	33.0	33.0	33.4	35.4	35.7	35.7	35.7	35.7	35.7
H2	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H3	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H4	33.0	33.0	33.0	33.0	33.0	35.8	37.9	38.2	38.2	38.2	38.2	38.2
H5	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2
H6	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H7	33.0	33.0	33.0	33.0	33.0	36.7	38.3	38.4	38.4	38.5	38.5	38.5
H8	33.0	33.0	33.0	33.0	33.0	33.0	34.7	35.0	35.0	35.0	35.0	35.0
H9	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H10	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H11	33.0	33.0	33.0	33.0	33.0	36.6	38.2	38.3	38.4	38.4	38.4	38.4
H12	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H13	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
H14	33.0	33.0	33.0	33.0	33.0	33.1	35.2	35.5	35.5	35.5	35.5	35.5
H15	33.0	33.0	33.0	33.0	33.0	33.9	35.9	36.2	36.2	36.2	36.2	36.2

Table C - Dwellings

ID	Address	Easting*	Northing*
H1	Brynbedw House	290444	193183
H2	1 Greenfield Terrace	294341	195716
H3	Nantymoel Farm	293130	193296
H4	Bryn Eglur	289909	193514
H5	60 Vale View Terrace	293425	193458
H6	13 Scotch Street	289339	196040
H7	14 Pwllgarn Terrace	290069	193653
H8	Residential Caravan	290722	193207
H9	Abergwynfi	289368	196146
H10	Blaen Cwmdu Farm	287709	192104
H11	Blaengarw	290048	193644
H12	Bryn Coed	287062	195082
H13	40 High Street	289431	196124
H14	30 Queen Street	290404	193174
H15	Ty-Talgarth	293626	193025

*Easting and northings are included to show approximate location

Guidance for Noise Conditions

These notes are to be read with and form part of the noise conditions. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise emissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Guidance Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Guidance Note 3. Reference to ETSU-R-97 refers to the publication entitled “The Assessment and Rating of Noise from Wind Farms” (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

Guidance Note 1

(a) Values of the LA90,10-minute noise statistic should be measured at the complainant’s property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent standard thereof). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3. These measurements shall be made in such a way to enable a tonal penalty to be applied in accordance with Guidance Note 3 to satisfy that the requirements of Guidance Note 3 shall also be satisfied.

(b) The microphone should be mounted at 1.2 - 1.5 m above ground level, fitted with a two layer windshield (or suitable alternative approved in writing from the relevant Local Planning Authority), and placed outside the complainant’s dwelling. Measurements should be made in “free-field” conditions. To achieve this, the microphone should be placed at least 3.5m away from the building facade or any reflecting surface except the ground at a location agreed with the relevant Local Planning Authority.

(c) The LA90,10min measurements shall be synchronised with measurements of the 10-

minute arithmetic mean wind speed and with operational data logged in accordance with Guidance Note 1(d), including power generation information for each wind turbine, from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second and wind direction in degrees from north at hub height for each turbine and arithmetic mean power generated by each turbine, all in successive 10- minute periods. Unless an alternative procedure is previously agreed in writing with the relevant Planning Authority, this hub height wind speed, averaged across all operating wind turbines, shall be used as the basis for the analysis. All 10 minute arithmetic average mean wind speed data measured at hub height shall be 'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10 metre height wind speed data, which is correlated with the noise measurements determined as valid in accordance with Guidance Note 2, such correlation to be undertaken in the manner described in Guidance Note 2. All 10- minute periods shall commence on the hour and in 10- minute increments thereafter.

(e) Data provided to the relevant Local Planning Authority in accordance with the noise condition shall be provided in comma separated values in electronic format with the exception of audio data which shall be supplied in the format in which it is recorded.

Guidance Note 2

(a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b). Such measurements shall provide valid data points for the range of wind speeds, wind directions, times of day and power generation requested by the Local Planning Authority. In specifying such conditions, the relevant Local Planning Authority shall have regard to those conditions which were most likely to have prevailed during times when the complainant alleges there was disturbance due to noise or which are considered likely to result in a breach of the noise limits.

(b) Valid data points are those that remain after all periods during rainfall have been excluded. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10minute period concurrent with the measurement periods set out in Note 1 (c) and is situated in the vicinity of the sound level meter.

(c) For those data points considered valid in accordance with Guidance Note 2(b), values of the LA90, 10 minute noise measurements and corresponding values of the 10- minute wind speed, as derived from the standardised ten metre height wind speed averaged across all operating wind turbines using the procedure specified in Guidance Note 1(d), shall be plotted on an XY chart with noise level on the Y-axis and the standardised mean wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

Where, in the opinion of the Local Planning Authority, noise emissions at the location or locations where assessment measurements are being undertaken contain a tonal component, the following rating procedure shall be used:

(a) For each 10-minute interval for which LA90, 10-minute data have been determined as valid in accordance with Guidance Note 2 a tonal assessment shall be performed on noise emissions during 2 minutes of each 10-minute period. The 2-minute periods should be

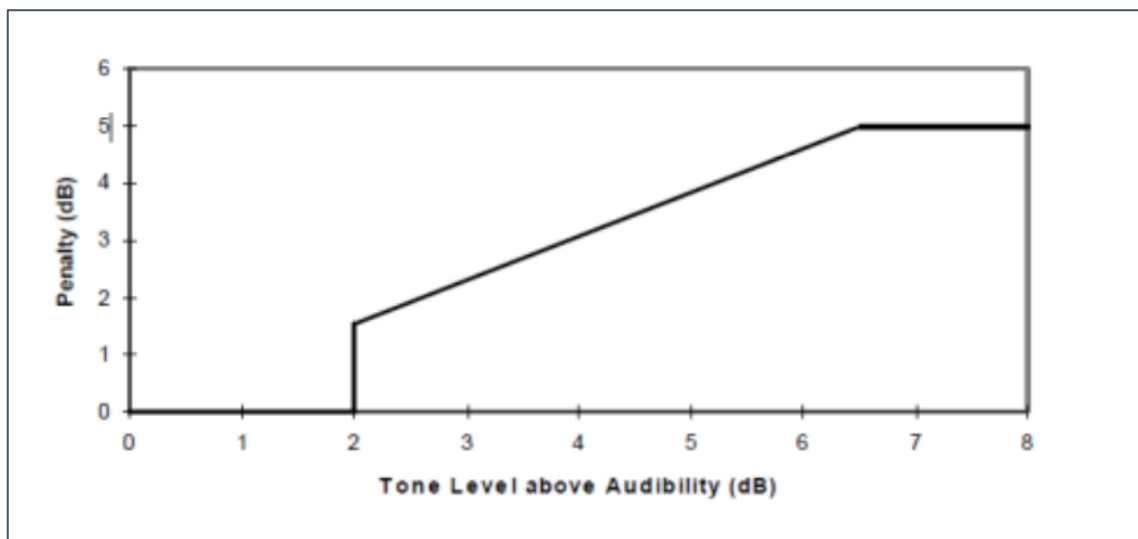
spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from the standard procedure, as described in Section 2.1 on pages 104-109 of ETSU-R-97, shall be reported.

(b) For each of the 2-minute samples the tone level above or below audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

(c) The arithmetic average margin above audibility shall be calculated for each wind speed bin where data is available, each bin being 1 metre per second wide and centred on integer wind speeds. For samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.

(d) The tonal penalty shall be derived from the margin above audibility of the tone according to the figure below. The rating level at each wind speed shall be calculated as the arithmetic sum of the wind farm noise level, as determined from the best-fit curve described in Note 2, and the penalty for tonal noise.

(e) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

(a) If a tonal penalty is to be applied in accordance with Guidance Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Guidance Note 3 at each integer wind speed within the range specified by the relevant Local Planning Authority in its written assessment protocol.

(b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Guidance Note 2.

(c) In the event that the rating level is above the limit(s) set out in Tables A1 to A6 and B1 to B6 attached to the noise conditions or the noise limits for alternative agreed

complainant's dwelling, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise emission from the site, hereby consented, only.

(d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant reasonably requires to undertake the further assessment or any other assessment to determine compliance with Tables A1 to A6 and B1 to B6 as attached. The further assessment shall be undertaken in accordance with the following steps: i. Repeating the steps in Guidance Note 2, with the wind farm switched off, and determining the background noise (L3) at each integer wind speed within the range requested by the relevant Local Planning Authority in its written request and the approved protocol. ii. The wind farm noise (L1) at this speed shall then be calculated as follows where L2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

iii. The rating level shall be re-calculated by adding the tonal penalty (if any is applied in accordance with Guidance Note 3) to the derived wind farm noise L1 at that integer wind speed. iv. If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note (iii) above) at any integer wind speed exceeds the values set out in Tables A1 to A6 and B1 to B6 or exceeds the noise limits approved by the relevant Local Planning Authority for an alternative agreed complainant's dwelling then the development fails to comply with the conditions.

Notification of initiation of development and display of notice

You must comply with your duties in section 71ZB (notification of initiation of development and display of notice: Wales) of the Town and Country Planning Act 1990. The duties include the following:

Notice of initiation of development

Before beginning any development to which this planning permission relates, notice must be given to the Local Planning Authority in the form set out in Schedule 5A to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details which must be given to the Local Planning Authority to comply with this duty.

Display of notice

The person carrying out development to which this planning permission relates must display at or near the place where the development is being carried out, at all times when it is being carried out, a notice of this planning permission in the form set out in Schedule 5B to the Town and Country Planning (Development Management Procedure) (Wales) Order 2012 or in a form substantially to the like effect. The form sets out the details the person carrying out development must display to comply with this duty. The person carrying out development must ensure the notice is: (a) firmly affixed and displayed in a prominent place at or near the place where the development is being carried out; (b) legible and easily visible to the public without having to enter the site; and (c) printed on durable material. The person carrying out development should take reasonable steps to

	protect the notice (against it being removed, obscured or defaced) and, if need be, replace it.
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**JANINE NIGHTINGALE
CORPORATE DIRECTOR COMMUNITIES**

Background Papers
None