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14 February 2022

Our ref: CE6453 - OP9289

To whom it may concern,

Request for a formal EIA screening opinion for the erection of a single wind turbine, up to 150m to tip, on Land at Tresgyrch Fawd Fawr, Pontardawe, Neath Port Talbot, SA8 4RU.

CleanEarth (CE) proposes submitting a planning application for a single turbine development on Land at Tresgyrch Fawd Fawr, Pontardawe, Neath Port Talbot, SA8 4RU. CE seeks to gain a formal screening opinion and formal pre-planning consultee comments for this site. The provisional turbine locations are shown in drawings CE6453-OP9289-IFP-SL-01 and CE6453-OP9289-IFP-TL-01, and the Zone of Theoretical Visibility seen in CE6453-OP9289-IFP-ZTV-01. CE has provided a detailed description of the project and evaluated this against Environmental Impact Assessment (EIA) regulations to support our screening request.

1. The Development

The proposal is to install a single turbine of maximum tip height 150m, with a 3-bladed rotor design. Due to constant industry developments, the turbine model has yet to be finalised. Supplementary elements include two permanent switchgear housing units (approx. 4m x 4m x 3m), temporary access track, underground cabling, and temporary crane hard standing area (approx. 65m x 45m).

CE looks to develop sites that have reduced environmental impacts considering proximity, noise and visual amenity to 'sensitive receptors' (residential dwellings), ecological constraints, existing infrastructure, and locally designated areas and features.

1.1 Installation

The turbine and other components would be delivered to the site by an articulated lorry. The proposed route follows existing public and private highways, and access may need to be established within the land boundary to the turbine base.

A temporary crane hard standing area (approx. 65m x 45m) will be required for the tower, nacelle, and blade installation, this typically takes 2-3 days, after which the land will be returned to its original state.

1.2 Electrical Connection

The transformer and electrical switching system for connecting the wind turbine to the local grid will be contained within two small weatherproof housing units (approx. 4m x 4m x 3m), positioned adjacent to the tower. Local grid connection will be part of a separate application (if required), undertaken by the local network operator (in this case Western Power Distribution). Underground cabling will be used where practical.

1.3 Decommissioning

The operational lifespan of the turbine is 35 years, after which the turbine will be decommissioned. This site would then be reinstated to its former state, or a condition agreed with the Local Planning Authority (LPA).

2. Screening Opinion

Wind turbine installations are erected to harness wind power for energy production and are specified in Schedule II of the Town and Country Planning (EIA) Regulations 2017. This correspondence constitutes a formal request for a screening direction under the above regulations. With the above regulations in mind, we have provided an assessment of the project against the criteria stated below.

2.1 Schedule II of the TCP Regulations

This regulation identifies the threshold criterion which, if exceeded, requires a formal assessment to be undertaken against Schedule 3 of the TCP Regulations to determine whether an EIA is needed.

The applicable threshold criterion is stated in two points within Schedule 2, section 3(i):

"(i) the development involves the installation of more than two (2) turbines; or

"(ii) The hub height of any turbine or height of any structure exceeds 15 meters ..."

The proposed wind turbine exceeds the hub height threshold and therefore is a Schedule 2 development that requires a formal assessment against Schedule 3 as to whether an EIA is required.

2.2 Summary of Schedule 3 of the TCP Regulations Assessment

Schedule 3 of the TCP Regulations set out the selection criteria for screening a Schedule 2 development. This determines whether the project is likely to significantly affect the environment, assessing factors such as nature, size, and turbine location. Our assessment is shown in Table 1 and summarised below.

The turbine is proposed in a sparsely settled Landscape Character Area (LCA) of Nant Melyn & Bryn-chwyth, this LCA is described as pastoral in character with fields contained by various boundary types, in various states of management with many neglected. The site lies within the Pre-assessed Area for Wind Energy adopted from *Future Wales 2040, The National Plan*

which identifies the site to fall within an area identified by the Welsh Government to be capable of accommodating wind development with a presumption in favour of large-scale wind energy development and the acceptance of the associated landscape change. The area has been earmarked to possess abundant opportunities to generate renewable energy and help the Welsh Government in not only maximising this potential but also in addressing its key commitments towards the transition to a low carbon economy and in tackling climate change.

There are no Special Areas of Conservation (SAC) within 10km of the site with the closest being the Caeau Mynydd Mawr located 10.3km west of the proposed turbine location. There are no National Nature Reserves (NNRs) within the 10km study area with the closest one being Carmel located 10.6km northwest of the site. There is one Local Nature Reserve (LNR) located 6.3km east of the site which is the Swansea Canal. There are no Sites of Importance for Nature Conservation (SINCs) within 10km of the site with the closest one being the Glyn yr hebog located 11km northeast of the site. There are no Special Protection Areas (SPAs) within 10km of the site with the closest one being the Burry Inlet located 15.8km southwest of the site. There are no RAMSAR sites within 10km of the site with the closest one being the Crymlyn Bog located 12.7km south of the site.

There are 20 Sites of Special Scientific Interest (SSSI) within a 10km study area with the closest SSSI, Hafod Wennol Grasslands, located 617m on the northwestern boundary of the land boundary and is designated for being the third-largest example of lowland neutral grassland in the former county of West Glamorgan and the old Llanelli Borough. The next closest is the Caeau Nant Garenig SSSI located 3.38km north of the site at its closest point and comprises a group of traditionally managed unimproved pastures and hay meadows occupying west-facing slopes which descend gently to a wooded stream. The herb-rich grasslands to be found here are typical of those which were once fairly widespread throughout the Carmarthen Coalfield, prior to losses caused by land improvement, opencast coal extraction and development of one kind or another. The next closest SSSI is the Rhosydd Castell-Du & Plas-Y-Bettws which is of special importance for its large expanse of fen-meadow and drier, more neutral grassland, as well as several associated stands of damp acid grassland, rush pasture and wet heath. A strong population of the nationally scarce soft-leaved sedge *Carex Montana* also grows at this locality. The next closest SSSI is Frondeg which is of special interest for its neutral grasslands, fen - meadows and wet grassland, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the lowlands, most having been lost to agricultural improvement. Tairgwaith SSSI

located 3.86km northeast of the proposed site is of special interest for its species-rich grasslands, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Cefn Gwrhyd, Rhydyfro designated for being an upland area supporting types of wetland habitats uncommon in the county. The most important of these is a species-rich valley mire in which *Eriophorum angustifolium*, *Menyanthes trifoliata*, *Hypericum elodes*, and *Narthecium ossifragum* are abundant; quaking bog communities dominated by *E. angustifolium* and *Sphagnum* spp. and several small areas of species-rich soligenous mire. Surrounding areas are comprised of good examples of the damp acid grassland and drier heath communities to be found in the uplands of the county. Gwrhyd Meadows is the next SSSI that is located 4.7km southeast of the proposed site and is designated for being an extensive series of meadows and wet pastures situated on the south-east-facing slopes of Cefn Gwrhyd and is the largest area of traditionally managed enclosed grassland within the former county of West Glamorgan and the old Llanelli Borough. Following the losses caused by agricultural improvement, industrial development and afforestation, such sizeable tracts of grassland are now extremely uncommon within Wales as a whole. The next closest SSSI is the Graig Fawr, Pontardulais SSSI located 5.1km southwest of the proposed site and is designated for being an area supporting good examples of the range of plant communities to be found in the uplands of the county. These include dry acidic grasslands dominated by *Galluna vulgaris*, *Vaccinium myrtillus* and ericaceous shrubs; poorly drained acid grasslands predominantly comprised of *Molinia caerulea* and *Eriophorum vaginatum*; and infrequent soligenous mires in which *Wahlenbergia hederacea*, *Chrysosplenium oppositifolium* and *Anagallis tenella* are prominent species. Caeau Pant-y-Bryn SSSI located 6.3km northwest of the site and is designated for its large stand of purple moor-grass *Molinia caerulea* meadow thistle *Cirsium dissectum* fen-meadow, which is extensively represented in most of the enclosures. This vegetation is characterised by a short purple moor-grass turf with a variety of associated small sedges, including carnation sedge *Carex panicea*, tawny sedge *Carex hostiana* and flea sedge *Carex pulicaris*; rushes, mostly compact rush *Juncus conglomeratus* and sharp-flowered rush *Juncus acutiflorus*; and flowering plants such as meadow thistle, whorled caraway, devil's-bit scabious *Succisa pratensis* and tormentil *Potentilla erecta*. Variable amounts of ericaceous shrubs such as cross-leaved heath *Erica tetralix* are present, with petty whin *Genista anglica* occurring rarely. The next closest SSSI is the Mynydd Du (Black Mountain) SSSI located 6.4km north of the proposed site and is designated for its vegetation, open water and birdlife.

It forms an interesting comparison with Brecon Beacons SSSI to the east in having more

varied geology. In addition to the Old Red Sandstone, there are significant outcrops of Carboniferous Limestone and Millstone Grit. The next closest SSSI is Cilybebyll located 6.9km southeast of the site and is designated for its species-rich grasslands and wet pastures, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Glais Moraine SSSI located 7.8km south of the site and is designated for being the most spectacular of the South Wales valley end-moraines occurs at Glais in the Tawe Valley. The moraine has a clear crescentic form and is thought to represent a retreat stage of the Late Devensian ice sheet, rather than its maximum limit.

The next closest SSSI is the Cwm Twrch SSSI located 8km northeast of the proposed site and is designated for being of considerable importance because it fills in the gap in the Cwm Gwrelych - Nant Llyn Fach section, completing a continuous sequence of strata from the base of the Westphalian A to the upper Westphalian C. Fforest Goch Bog SSSI located 8.1km southeast of the site and is designated for hosting the nationally rare lowland raised bog, particularly in south Wales, representing by far the best and much the least disturbed site when compared with the other three possible examples within the West Glamorgan and Llanelli area of search. The next closest SSSI is the Nant-y-Crimp which is located 8.6km southwest which is of special interest for its wet pastures, species-rich neutral grasslands and seminatural woodland as well as associated scrub, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Coed Llandyfan SSSI located 8.9km northwest of the site and is designated for the developed wood marked by the abundance and variety of shrub species, the varied age of the canopy species and the diverse canopy and ground layer communities. The next closest SSSI is the Caeau Blaenau-Mawr SSSI located 9.34km northwest of the proposed site is designated for its importance as an extensive example of the type of unimproved species-rich damp grassland that was once widespread in this part of Carmarthenshire. Such sites are becoming increasingly scarce due to agricultural improvement and industrial development. The next closest SSSI is the Caeau Afon Gwili located 9.57km west of the proposed site and is designated for an important and extensive example of the kind of unimproved species-rich grassland that was once widespread in this part of Wales but is now increasingly scarce due to land improvement and industrial/residential development. the Cae Cwrtbrynbeirdd is located 9.6km north/northwest of the proposed site and is designated for its marshy grassland and a large marsh fritillary butterfly population. The next closest SSSI is the Caeau Capel Hendre located 9.66km west of the site and designated for being a notable

example of the more species-rich type of caraway grassland, situated on moderately acidic soils. There are no other SSSIs found within 10km of the proposed site of the turbine. Due to the proximity of the Hafod Wennol Grasslands SSSI located to the northwest of the site, a detailed assessment of the site's characteristics in relation to the proposed development will be undertaken prior to the submission of a full planning application. No infrastructure/development related to the proposal would be sited within the SSSI and thus would not cause any physical alteration to the features of this SSSI. Any potential impacts that may arise as a result of the proposed development would be thoroughly examined by a suitably qualified ecologist with avoidance and mitigation measures proposed wherever deemed necessary. Due to the distances seen between the proposed turbine and the other SSSI features seen within the 10km study area, and no infrastructure or access proposed through these sites, no significant impacts are expected.

There are no Biosphere Reserves present within the 10km study area. Beyond these distances, due to no infrastructure or access proposed through these sites, no significant impacts are expected.

The closest National Park is the Brecon Beacons National Park, located 5.12km north of the proposed site. The distance between the proposed development, the presence of vegetation and development, and the natural topography of the land would indicate that visual impacts would be minimal as a result of the proposed development. The visual impact would be thoroughly examined by a suitably qualified Landscape architect through the utilisation of a Landscape and Visual Impact assessment as part of a full planning application.

There are no AONBs within a 10km radius from the proposed site of the turbine with the closest one being Gower AONB located 18km south/southwest of the site. Due to the distance between the proposed development and the AONB, no impacts are to be expected.

There are 14 Listed Buildings (LB) in the surrounding area of the turbine site within 5km. The closest is the grade II listed, Circular pigsty at Pen-yr-esgym located 585m southeast of the site. This is followed by the grade II listed buildings of Front wall, railings and gates to Capel Y Tabernacl and grade II* listed Capel Y Tabernacl located 2.8km northeast of the proposed site. The grade II listed Bridge over Lower Clydach below Glynmeithrim Uchaf is located 2.9km south of the proposed site. The grade II listed Valve tower at Upper Lliw reservoir with bridge and bridge abutment is located 3.7km southwest of

the proposed site followed by the Gwaun-Cae-Gurwen War Memorial grade II listed building located 3.79km northeast of the site. The grade II listed Saron Old Chapel is located 3.95km southeast of the proposed site. The grade II listed Jims Barber Shop and 207 is located 4.42km north of the proposed site. This is followed by the grade II listed cluster of Christ Church, Monument to Mollie Davies at Christ Church, and the Vicarage located 4.65km north, 4.68km north and 4.68km north of the proposed site respectively. The grade II* listed Capel Brynseion is located 4.87km north of the site followed by the grade II listed Capel Bethania. The grade II* listed Capel Gellionnen (Gellionnen and Graig Unitarian Church) is located 4.89km south/southeast of the proposed location. There are no other listed buildings within 5km of the proposed site. The distance between the proposed site and these building greatly reduce the visibility of the turbine thus limiting the visual impact of the proposed turbine. An examination of the ZTV based on the bare-earth topographical model showcased that only 7 of the 14 Listed Buildings would have some visibility of the turbine in relation to an observer of 2m in height. It is therefore expected that the presence of visual cover in the form of vegetation and tree cover; and developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced leading to no significant impacts expected on these designations as a result of the proposed development.

There are 13 Scheduled Monuments (SMs) located within 5km of the proposed site. The closest SM being, the Bancbryn cairn cemetery [east] SM located 1.2km north of the site followed by the Bancbryn platform cairn, Bancbryn cairn cemetery, and Bancbryn post-medieval llyuest farmstead located 1.25km north, 1.31km north, and 1.36km north of the site respectively. Penlle'r Castell SM is located 2.09km west of the site followed by the Round Cairns 430m North West of Henrhyd located 2.11km northwest of the site. The Mynydd y Garth Cairn SM is located 2.7km southeast of the proposed site followed by Carn Llechart Stone Circle and Burial Chamber Nr Carn Llechart SMs located 2.75km south/southeast of the proposed site. Ring Cairn on Tor Clawdd SM is located 2.89km southwest of the site followed by Waun-hir post-medieval llyuest farmstead SM located 3.39km northwest of the site. Bodyst-uchaf ring cairn SM is located 3.99km northwest of the site. This is followed by Cae Castell (Rhyndwyclydach Medieval Earthwork) SM located 4.13km south of the site. There are no other scheduled monuments within 5km of the site. As the proposed turbine will not impact any archaeological remains, and the surrounding ground of the SMs, no significant impact on these monuments are expected. An examination of the ZTV for the proposed site shows 10 of the 13 SMs will have some visibility to the proposed site of the turbine based on the bare-earth topographical model. However, the

presence of visual cover in the form of vegetation and tree cover; and residential developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced leading to no significant impacts expected on these designations as a result of the proposed development. A full assessment of the archaeological and heritage impacts conducted by a suitably qualified archaeologist would accompany the planning application submitted for the site.

There are no Country Parks located within the 10km study area of the proposed site with Llyn Llech Owain being 12.3km northwest of the site. There are no Designated Gardens and Landscapes in the immediate area, with the closest one being Glynhir located 7.34km northwest of the proposed site designated for its Early to mid-nineteenth century garden, including fine dovecot, canal, walled garden, icehouse and woodland garden with picturesque walks; picturesque bridges over a waterfall on the river Loughor (Llwchwr) now disappeared. There are no other designated gardens within 10km of the proposed site. An examination of the ZTV showcases that there will be no visibility of the turbine seen from an observer at 2m height from within Glynhir garden. In addition, the presence of visual cover in the form of vegetation and tree cover; and residential developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced leading to no significant impacts expected on these designations as a result of the proposed development. A full assessment of the visual impacts on these designations would be carried out by a suitably qualified Heritage consultant to determine any impacts and a report submitted detailing the elements in support of a full planning application for the site.

The site was selected due to its strategic placement within the Pre-assessed Areas for Wind Energy as detailed by the Future Wales 2040 policy document. It has been showcased that there is an overriding need for the production of renewable energy to make crucial contributions towards the reduction of Welsh greenhouse gas emissions and also to effectively contribute towards meeting the ambitious decarbonisation and renewable energy targets to adequately respond to the global climate emergency. The sparsely settled nature of the landscape would add to the minimisation of large-scale impacts and would draw focus towards maximising the benefits that renewable energy can offer to the community and the country of Wales in the wider context.

The proposal is located within the special landscape area of Mynydd y Garth as per the *Neath Port Talbot Landscape Local Development Plan (LDP)* and *Landscape and Seascape Supplementary Planning Guidance* which requires any development to demonstrate that there will be no significant adverse impacts on the features and characteristics for which the Special Landscape Area has been designated. The proposal has been sited to ensure that it closely follows the guidelines set out in policy EN2 and makes the best use of the abundant high-quality wind resource that is available whilst ensuring sufficient distancing from the neighbouring Mynydd y Gwair and Mynydd y Betws wind farms located in Swansea and Carmarthenshire counties. Furthermore, the exact visual and cumulative impacts on the SLA would be thoroughly examined by a suitably qualified landscape architect with the results documented in a landscape and visual impact assessment (LVIA) as part of a full planning application to demonstrate that the proposal adheres to the policy.

The proposal adheres to policy SC1 which ensures that the proposal falls outside of the settlement limits earmarked by the NPT council as it is associated with the generation of energy and would form part of the existing farm's diversification efforts to supplement their income through the utilisation of the abundant natural wind resource that is characteristic of the area and is located in a suitable countryside location.

The site lies within a Mineral Safeguarding Area and is protected for its grade 1 sandstone resource as per Policy M1 of the NPT LDP. Neath Port Talbot contains extensive mineral resources with virtually the whole of the County Borough underlain by coal and aggregate resources. The proposal would ensure compliance with the policy by being a temporary development requiring permission for 35 years and would only have a minor developed area for the foundation which would not hinder the integrity of the available resource. The climate emergency that we are collectively facing showcases that there is an overriding need for the development of renewable energy generators to make crucial contributions towards legally binding, national carbon reduction targets.

The proposal has been sited to ensure that it is furthest away from the few nearby, scattered residential properties. The nearest financially involved property situated within the land boundary is located 286m north of the proposed site with the remaining non-financially involved properties being located 706m northwest, 729m south, 764m northwest, 811m north, 943m east, and 1.03km west as measured to the nearest curtilage of all the properties. All other properties are located over 1.1km away from the proposed site. ones

are located 729m west, 1210m northwest, 1227m northwest, 1283m northwest, 1283m northeast, and 1325m northwest of the proposed turbine as measured to the curtilage of the properties. The proposed site is seen to be located at adequate distances and in the non-prevailing wind direction, which has a marked effect on the reduction of adverse visual impacts and noise impacts on these receptors and the sparsely settled landscape. A full planning application would be accompanied by a complete noise assessment and an LVIA that determines the exact extent of the impact on these properties.

The development will have no hazardous effects. The turbine development will have a positive environmental impact by providing clean energy and associated carbon savings and would make a crucial contribution towards the achievement of regional and national renewable energy targets.

The proposed development is for a 35-year period, at the end of which it will be removed, and the land returned to its current state or a state agreed upon with the NPT council.

The assessment of the turbine development against Schedule 3 shows that a significant environmental impact is not likely to arise as a result of careful siting and design of the proposal as per the adherence to available local and national policy and therefore an EIA should not be required.

4. Planning Application

Following this screening request, CE intends to submit a planning application for the installation of a single wind turbine. The planning application will be accompanied by an analysis of potential impacts of this development, including:

- Planning context
- Landscape and visual impact
- Ecological impact
- Cultural heritage including archaeological study
- Noise
- Shadow flicker
- Civil aviation and MoD
- Telecommunications
- Transportation impact
- Hydrology and contaminated land
- Community benefit

The full context and detail of these analyses will be discussed and agreed upon with Carmarthenshire Council consultees and all other stakeholders.

5. Conclusion

CE requests a screening opinion along with pre-application consultee comments.

I hope the above information has provided you with all the necessary facts to assess whether an EIA will be required for this turbine proposal. CE has considered this proposed development against the EIA regulations and concluded that the proposed development is unlikely to affect the environment significantly. We, therefore, believe an EIA is not required. CE would be grateful if Neath Port Talbot Council could confirm this to be the case. If you require any further information, please do not hesitate to contact me.

Following this request, assuming an EIA is not required, a full planning application will be submitted to Carmarthenshire Council. This will detail all the assessments stated in Section 5, as agreed with Carmarthenshire Council Consultees.

Yours faithfully,

James Sharman
Project Manager
CleanEarth

Table 1. Schedule 3 selection criteria for screening a Schedule 2 development

Characteristics of the development	
(a) The size of the development	The development is to be a single turbine development with a maximum tip height of 150m.
(b) The accumulation with other development	There are several wind turbine developments within a 10km study area. Those turbines which have been identified are listed below. Approved/Constructed within 10km: • E/10446 - 15 x 110.5m - 1.5km north • 2012/1221 - 16 x 127m - 2km west • P2015/0915 - 1 x 86.5m - 3km east • P2012/0567 - 1 x 27m - 3.2km east • P2007/1413 - 2 x 100m - 4.6km east • E/15736 - 1 x 18m - 6.3km northwest • E/28634 - 1 x 26.5m - 6.7km northwest • E/26447 - 1 x 77m - 9.8km northwest Large-scale (up to 127m to tip) wind developments are located within 10km of the proposed turbine locations. Consideration has been given to the potential cumulative impact of the proposal. This proposal has been designed to avoid large-scale cumulative effects with the turbines in the 10km study area and to minimise any adverse visual impacts on the residents. Due to the unique disposition of turbine siting in an area located within the Pre-assessed Areas for Wind, paired with the sparsely settled nature of the surrounding landscape, the visual impact caused by a single additional turbine would likely be minor.
(c) The use of natural resources	The natural resource of wind power will be used to supply renewable energy to the grid to meet government renewable energy targets.
(d) The production of waste	The production of waste during the turbine's operational lifetime will be negligible. During installation, the foundation will require soil to be excavated; this will be reused on site. Additional construction waste will be appropriately disposed of offsite.

(e) Pollution and nuisances	Pollution and nuisances will be kept to a minimal amount during the construction phase. Transportation will be during low flow traffic periods, and high noise pollution works would be during standard working hours and typically last 2-3 days.
(f) The risk of accidents, having regard in particular to substances or technologies used	Wind turbine developments do not include the use of hazardous substances. Turbine technology is safety checked and regulated, with a good safety record.

Location of the development	
(a) The existing land use	The site is within a field located on freehold farmland at Land at Tresgyrch Fawd Fawr, Pontardawe, Neath Port Talbot, SA8 4RU Access will utilise the existing road networks in the area, travelling north on the A4067 from the M4 and continuing to the site on the A474 before heading northwest on Batan Road to reach the land boundary. Once the turbine is erected and commissioned, the site's land use will remain as pre-installation, excluding the small area occupied by the foundation and electrical housings.
(b) The relative abundance, quality and regenerative capacity of the natural resources in the area	The turbine development will utilise the abundant natural wind resource on-site. As the turbine development takes a small area (<0.2 hectares) of land, the impact on abundance, quality, and regenerative capacity of the site's natural resources will be negligible.

(c) The absorption capacity of the natural environment	There are no Special Areas of Conservation (SAC) within 10km of the site with the closest being the Caeau Mynydd Mawr located 10.3km west of the proposed turbine location. There are no National Nature Reserves (NNRs) within the 10km study area with the closest one being Carmel located 10.6km northwest of the site. There is one Local Nature Reserve (LNR) located 6.3km east of the site which is the Swansea Canal. There are no Sites of Importance for Nature Conservation (SINCs) within 10km of the site with the closest one being the Glyn yr hebog located 11km northeast of the site. There are no Special Protection Areas (SPAs) within 10km of the site with the closest one being the Burry Inlet located 15.8km southwest of the site. There are no RAMSAR sites within 10km of the site with the closest one being the Crymlyn Bog located 12.7km south of the site. There are 20 Sites of Special Scientific Interest (SSSI) within a 10km study area with the closest SSSI, Hafod Wennol Grasslands, located 617m on the northwestern boundary of the land boundary and is designated for being the third-largest example of lowland neutral grassland in the former county of West Glamorgan and the old Llanelli Borough. The next closest is the Caeau Nant Garenig SSSI located 3.38km north of the site at its closest point and comprises a group of traditionally managed unimproved pastures and hay meadows occupying west-facing slopes which descend gently to a wooded stream. The herb-rich grasslands to be found here are typical of those which were once fairly widespread throughout the Carmarthen Coalfield, prior to losses caused by land improvement, opencast coal extraction and development of one kind or another. The next closest SSSI is the Rhosydd Castell-Du & Plas-Y-Bettws which is of special importance for its large expanse of fen-meadow and drier, more neutral grassland,
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as well as several associated stands of damp acid grassland, rush pasture and wet heath. A strong population of the nationally scarce soft-leaved sedge *Carex Montana* also grows at this locality. The next closest SSSI is Frondeg which is of special interest for its neutral grasslands, fen - meadows and wet grassland, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the lowlands, most having been lost to agricultural improvement. Tairgwaith SSSI located 3.86km northeast of the proposed site is of special interest for its species-rich grasslands, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Cefn Gwrhyd, Rhydyfro designated for being an upland area supporting types of wetland habitats uncommon in the county. The most important of these is a species-rich valley mire in which *Eriophorum angustifolium*, *Menyanthes trifoliata*, *Hypericum elodes*, and *Narthecium ossifragum* are abundant; quaking bog communities dominated by *E. angustifolium* and *Sphagnum* spp. and several small areas of species-rich soligenous mire. Surrounding areas are comprised of good examples of the damp acid grassland and drier heath communities to be found in the uplands of the county.

Gwrhyd Meadows is the next SSSI that is located 4.7km southeast of the proposed site and is designated for being an extensive series of meadows and wet pastures situated on the south-east-facing slopes of Cefn Gwrhyd and is the largest area of traditionally managed enclosed grassland within the former county of West Glamorgan and the old Llanelli Borough. Following the losses caused by agricultural improvement, industrial development and afforestation, such sizeable tracts of grassland are now extremely uncommon within Wales as a whole. The next

closest SSSI is the Graig Fawr, Pontardulais SSSI located 5.1km southwest of the proposed site and is designated for being an area supporting good examples of the range of plant communities to be found in the uplands of the county. These include dry acidic grasslands dominated by *Galluna vulgaris*, *Vaccinium myrtillus* and ericaceous shrubs; poorly drained acid grasslands predominantly comprised of *Molinia caerulea* and *Eriophorum vaginatum*; and infrequent soligenous mires in which *Wahlenbergia hederacea*, *Chrysosplenium oppositifolium* and *Anagallis tenella* are prominent species. Caeau Pant-y-Bryn SSSI located 6.3km northwest of the site and is designated for its large stand of purple moor-grass *Molinia caerulea* meadow thistle *Cirsium dissectum* fen-meadow, which is extensively represented in most of the enclosures. This vegetation is characterised by a short purple moor-grass turf with a variety of associated small sedges, including carnation sedge *Carex panicea*, tawny sedge *Carex hostiana* and flea sedge *Carex pulicaris*; rushes, mostly compact rush *Juncus conglomeratus* and sharp-flowered rush *Juncus acutiflorus*; and flowering plants such as meadow thistle, whorled caraway, devil's-bit scabious *Succisa pratensis* and tormentil *Potentilla erecta*. Variable amounts of ericaceous shrubs such as cross-leaved heath *Erica tetralix* are present, with petty whin *Genista anglica* occurring rarely. The next closest SSSI is the Mynydd Du (Black Mountain) SSSI located 6.4km north of the proposed site and is designated for its vegetation, open water and birdlife.

It forms an interesting comparison with Brecon Beacons SSSI to the east in having more varied geology. In addition to the Old Red Sandstone, there are significant outcrops of Carboniferous Limestone and Millstone Grit. The next closest SSSI is Cilybebyll located 6.9km southeast of the

site and is designated for its species-rich grasslands and wet pastures, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Glais Moraine SSSI located 7.8km south of the site and is designated for being the most spectacular of the South Wales valley end-moraines occurs at Glais in the Tawe Valley. The moraine has a clear crescentic form and is thought to represent a retreat stage of the Late Devensian ice sheet, rather than its maximum limit.

The next closest SSSI is the Cwm Twrch SSSI located 8km northeast of the proposed site and is designated for being of considerable importance because it fills in the gap in the Cwm

Gwrelych - Nant Llyn Fach section, completing a continuous sequence of strata from the base of the Westphalian A to the upper Westphalian C. Fforest Goch Bog SSSI located 8.1km southeast of the site and is designated for hosting the nationally rare lowland raised bog, particularly in south Wales, representing by far the best and much the least disturbed site when compared with the other three possible examples within the West Glamorgan and Llanelli area of search. The next closest SSSI is the Nant-y-Crimp which is located 8.6km southwest which is of special interest for its wet pastures, species-rich neutral grasslands and seminatural woodland as well as associated scrub, which are host to several uncommon plant species. Such vegetation is now increasingly scarce in the Welsh lowlands, most having been lost to agricultural improvement. The next closest SSSI is the Coed Llandyfan SSSI located 8.9km northwest of the site and is designated for the developed wood marked by the abundance and variety of shrub species, the varied age of

	the canopy species and the diverse canopy and ground layer communities. The next closest SSSI is the Caeau Blaenau-Mawr SSSI located 9.34km northwest of the proposed site is designated for its importance as an extensive example of the type of unimproved species-rich damp grassland that was once widespread in this part of Carmarthenshire. Such sites are becoming increasingly scarce due to agricultural improvement and industrial development. The next closest SSSI is the Caeau Afon Gwili located 9.57km west of the proposed site and is designated for an important and extensive example of the kind of unimproved species-rich grassland that was once widespread in this part of Wales but is now increasingly scarce due to land improvement and industrial/residential development. the Cae Cwrtbrynbeirdd is located 9.6km north/northwest of the proposed site and is designated for its marshy grassland and a large marsh fritillary butterfly population. The next closest SSSI is the Caeau Capel Hendre located 9.66km west of the site and designated for being a notable example of the more species-rich type of caraway grassland, situated on moderately acidic soils. There are no other SSSIs found within 10km of the proposed site of the turbine. Due to the proximity of the Hafod Wennol Grasslands SSSI located to the northwest of the site, a detailed assessment of the site's characteristics in relation to the proposed development will be undertaken prior to the submission of a full planning application. No infrastructure/development related to the proposal would be sited within the SSSI and thus would not cause any physical alteration to the features of this SSSI. Any potential impacts that may arise as a result of the proposed development would be thoroughly examined by a suitably qualified ecologist with avoidance and mitigation measures proposed wherever deemed necessary. Due to the distances seen between the
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	proposed turbine and the other SSSI features seen within the 10km study area, and no infrastructure or access proposed through these sites, no significant impacts are expected. There are no Biosphere Reserves present within the 10km study area. Beyond these distances, due to no infrastructure or access proposed through these sites, no significant impacts are expected.
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Characteristics of the potential impact	
(a) Extent of the impact	The project scale has been chosen to reduce visual impact whilst gaining the most out of the available natural resource. The Zone of Theoretical Visibility (ZTV) attached illustrates the area in which the turbine will be visible. Visual barriers such as woodland and settlements are not included in the model; therefore, the ZTV shows the worst-case scenario based on terrain only. This ZTV shows that the turbine will be mostly visible from the immediate vicinity for the worst-case scenario, with some long-range visibility found towards Pont Llanio, Penuwch, Bwlch Llan to the northeast and the fringes of Maesybont to the south; and Newcastle Emelyn, Llandyfroig,

and Pentrecagal to the west. Some patches of visibility can be found towards Porthyrhyd and Llandre to the east and the outskirts of Pant Meridith to the southeast. Overall, the worst-case scenario shown here showcases that most of the theoretical visibility will be limited to the immediate area. In addition, the existence of visual coverage in the form of vegetation, tree cover, and development within the 25km ZTV study area would further prevent large scale visual impacts.

The site was selected due to its strategic placement within the Pre-assessed Areas for Wind Energy as detailed by the Future Wales 2040 policy document. It has been showcased that there is an overriding need for the production of renewable energy to make crucial contributions towards the reduction of Welsh greenhouse gas emissions and also to effectively contribute towards meeting the ambitious decarbonisation and renewable energy targets to adequately respond to the global climate emergency. The sparsely settled nature of the landscape would add to the minimisation of large-scale impacts and would draw focus towards maximising the benefits that renewable energy can offer to the community and the country of Wales in the wider context.

The proposal is located within the special landscape area of Mynydd y Garth as per the Neath Port Talbot Landscape Local Development Plan (LDP) and Landscape and Seascape Supplementary Planning Guidance which requires any development to demonstrate that there will be no significant adverse impacts on the features and characteristics for which the Special Landscape Area has been designated. The proposal has been sited to ensure that it closely follows the guidelines set out in policy EN2 and makes the best use of the abundant high-quality wind resource that is available whilst ensuring sufficient distancing from the neighbouring Mynydd y Gwair and Mynydd y Betws wind farms located in Swansea and

	Carmarthenshire counties. Furthermore, the exact visual and cumulative impacts on the SLA would be thoroughly examined by a suitably qualified landscape architect with the results documented in a landscape and visual impact assessment (LVIA) as part of a full planning application with the aim of demonstrating that the proposal adheres to the policy. The proposal adheres to policy SC1 which ensures that the proposal falls outside of the settlement limits earmarked by the NPT council as it is associated with the generation of energy and would form part of the existing farm's diversification efforts to supplement their income through the utilisation of the abundant natural wind resource that is characteristic of the area and is located in a suitable countryside location. The site lies within a Mineral Safeguarding Area and is protected for its grade 1 sandstone resource as per Policy M1 of the NPT LDP. Neath Port Talbot contains extensive mineral resources with virtually the whole of the County Borough underlain by coal and aggregate resources. The proposal would ensure compliance with the policy by being a temporary development requiring permission for 35 years and would only have a minor developed area for the foundation which would not hinder the integrity of the available resource. The climate emergency that we are collectively facing showcases that there is an overriding need for the development of renewable energy generators to make crucial contributions towards legally binding, national carbon reduction targets. The proposal has been sited to ensure that it is furthest away from the few nearby, scattered residential properties. The nearest financially involved property situated within the land boundary is located 286m north of the proposed site with the remaining non-financially involved properties being located 706m northwest, 729m south, 764m northwest, 811m north,
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943m east, and 1.03km west as measured to the nearest curtilage of all the properties. All other properties are located over 1.1km away from the proposed site. ones are located 729m west, 1210m northwest, 1227m northwest, 1283m northwest, 1283m northeast, and 1325m northwest of the proposed turbine as measured to the curtilage of the properties. The proposed site is seen to be located at adequate distances and in the non-prevailing wind direction, which has a, marked effect on the reduction of adverse visual impacts and noise impacts on these receptors and the sparsely settled landscape. A full planning application would be accompanied by a complete noise assessment and an LVIA that determines the exact extent of the impact on these properties.

There are 14 Listed Buildings (LB) in the surrounding area of the turbine site within 5km. The closest is the grade II listed, Circular pigsty at Pen-yr-esgym located 585m southeast of the site. This is followed by the grade II listed buildings of Front wall, railings and gates to Capel Y Tabernacl and grade II* listed Capel Y Tabernacl located 2.8km northeast of the proposed site. The grade II listed Bridge over Lower Clydach below Glynmeithrim Uchaf is located 2.9km south of the proposed site. The grade II listed Valve tower at Upper Lliw reservoir with bridge and bridge abutment is located 3.7km southwest of the proposed site followed by the Gwaun-Cae-Gurwen War Memorial grade II listed building located 3.79km northeast of the site. The grade II listed Saron Old Chapel is located 3.95km southeast of the proposed site. The grade II listed Jims Barber Shop and 207 is located 4.42km north of the proposed site. This is followed by the grade II listed cluster of Christ Church, Monument to Mollie Davies at Christ Church, and the Vicarage located 4.65km north, 4.68km north and 4.68km north of the proposed site respectively. The grade II* listed Capel Brynseion is located 4.87km north of the site followed by the grade II listed Capel Bethania. The

grade II* listed Capel Gellionnen (Gellionnen and Graig Unitarian Church) is located 4.89km south/southeast of the proposed location. There are no other listed buildings within 5km of the proposed site. The distance between the proposed site and these building greatly reduce the visibility of the turbine thus limiting the visual impact of the proposed turbine. An examination of the ZTV based on the bare-earth topographical model showcased that only 7 of the 14 Listed Buildings would have some visibility of the turbine in relation to an observer of 2m in height. It is therefore expected that the presence of visual cover in the form of vegetation and tree cover; and developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced leading to no significant impacts expected on these designations as a result of the proposed development.

There are 13 Scheduled Monuments (SMs) located within 5km of the proposed site. The closest SM being, the Bancbryn cairn cemetery [east] SM located 1.2km north of the site followed by the Bancbryn platform cairn, Bancbryn cairn cemetery, and Bancbryn post-medieval lluest farmstead located 1.25km north, 1.31km north, and 1.36km north of the site respectively. Penlle'r Castell SM is located 2.09km west of the site followed by the Round Cairns 430m North West of Henrhyd located 2.11km northwest of the site. The Mynydd y Garth Cairn SM is located 2.7km southeast of the proposed site followed by Carn Llechart Stone Circle and Burial Chamber Nr Carn Llechart SMs located 2.75km south/southeast of the proposed site. Ring Cairn on Tor Clawdd SM is located 2.89km southwest of the site followed by Waun-hir post-medieval lluest farmstead SM located 3.39km northwest of the site. Bodyst-uchaf ring cairn SM is located 3.99km northwest of the site. This is followed by Cae Castell (Rhyndwyclydach Medieval Earthwork) SM located

4.13km south of the site. There are no other scheduled monuments within 5km of the site. As the proposed turbine will not impact any archaeological remains, and the surrounding ground of the SMs, no significant impact on these monuments are expected. An examination of the ZTV for the proposed site shows 10 of the 13 SMs will have some visibility to the proposed site of the turbine based on the bare-earth topographical model. However, the presence of visual cover in the form of vegetation and tree cover; and residential developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced leading to no significant impacts expected on these designations as a result of the proposed development. A full assessment of the archaeological and heritage impacts conducted by a suitably qualified archaeologist would accompany the planning application submitted for the site.

There are no Country Parks located within the 10km study area of the proposed site with Llyn Llech Owain being 12.3km northwest of the site. There are no Designated Gardens and Landscapes in the immediate area, with the closest one being Glynhir located 7.34km northwest of the proposed site designated for its Early to mid-nineteenth century garden, including fine dovecot, canal, walled garden, icehouse and woodland garden with picturesque walks; picturesque bridges over waterfall on the river Loughor (Llwchwr) now disappeared. There are no other designated gardens within 10km of the proposed site. An examination of the ZTV showcases that there will be no visibility of the turbine seen from an observer at 2m height from within Glynhir garden. In addition, the presence of visual cover in the form of vegetation and tree cover; and residential developments between the turbine site and the listed buildings would ensure that any resultant visibility would be further reduced

	leading to no significant impacts expected on these designations as a result of the proposed development. A full assessment of the visual impacts on these designations would be carried out by a suitably qualified Heritage consultant to determine any impacts and a report submitted detailing the elements in support of a full planning application for the site.
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(b) The transfrontier nature of the impact	Impacts will be local; there will be no potential for transboundary implications.
(c) The magnitude and complexity of the impact	All impacts will be confined to the local area. These impacts are not complex and will be assessed singularly, based on their own merits, using proven methods and regulations.
(d) The probability of the impact	The site is within a field located on freehold farmland at Tresgyrch Fawd Fawr, Pontardawe, Neath Port Talbot, SA8 4RU. From this assessment, it can be determined that this development's ecological effects are likely to be mitigated through a detailed consideration of the influencing factors. Similarly, the visual landscape impacts are local with acceptable distances to scattered and sparse neighbouring properties within an upland grazing landscape, reducing the impact of this turbine development. The separation distances to the nearest properties will ensure that noise and shadow flicker impacts are kept within the standard limits. Transport impacts are expected to be negligible due to the utilisation of existing transport networks in the area. Other possible impacts are radar, shadow flicker, and telecommunications. Initial consultation shows that it is unlikely to cause significant impacts, due to separation distances from relevant aviation infrastructures and residences.

	In line with this screening request, we have also initiated a pre-planning consultation with the Ministry of Defence regarding any potential impact on aviation/radar.
(e) The duration, frequency, and reversibility of the impact	The turbine will have an operational life period of 35 years after which the turbine will be decommissioned and the land reinstated to its former use.