

Foel Trawsnant Wind Farm Amended Scheme

Volume 1: Non-Technical Summary

Introduction

In October 2014¹ Pennant Walters (FoelT) Ltd (the applicant) submitted a planning application to Neath Port Talbot County Borough Council (NPTCBC) (application number P2014/0825) for a 13-turbine wind farm on land at Foel Trawsnant near Maesteg, South Wales. The application was approved by planning committee on 20 October 2014, subject to the signing of a Section 106 agreement to ensure the application was acceptable. This s106 agreement has not yet been signed however, and the applicant is now proposing to change certain elements of the scheme to improve its economic viability, including an increase in height to blade tip from 120m to 145m, and a reduction in the number of turbines from 13 to 11 (with turbines 12 and 13 removed).

To accompany the amended application an updated Environmental Impact Assessment (EIA) has been undertaken. EIA is a process that identifies the environmental effects of a development and identifies ways that these effects can be reduced and/or managed. An EIA is required by law for large developments that have the potential to cause 'significant' environmental effects. The findings of this process are reported in a document called an Environmental Statement. The Environmental Statement for the Foel Trawsnant Wind Farm amended scheme is a public document available for anyone to inspect.

The Environmental Statement has been prepared in accordance with *The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017* (the EIA Regulations). It presents the likely environmental effects of the proposals for the Foel Trawsnant Wind Farm amended scheme, concentrating on effects arising from the changes to the scheme which has already been approved in principle.

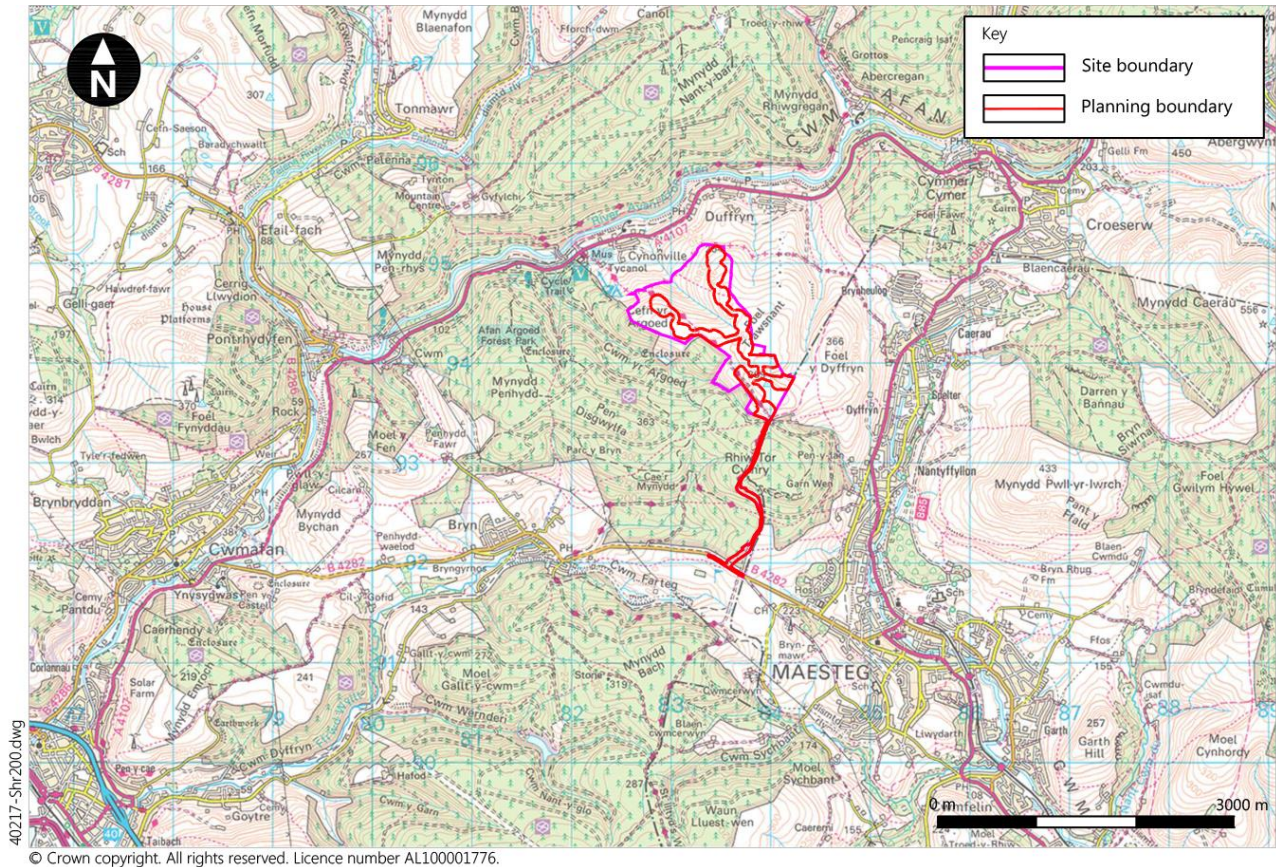
This document sets out a summary of the findings from the Environmental Statement in non-technical language.

The wind farm site

The Foel Trawsnant Wind Farm site is located approximately 2.3km to the north-west of Maesteg, Bridgend (albeit the site lies entirely within the Neath Port Talbot local authority area).

The proposed turbines would be sited on currently open land used primarily for grazing of livestock. The development site rises to a maximum height of approximately 371 m AOD and occupies a position toward the northern end of the higher ground between the Afan and Llynfi Valleys. Access to the site will be via the B4282, between Bryn and Maesteg.

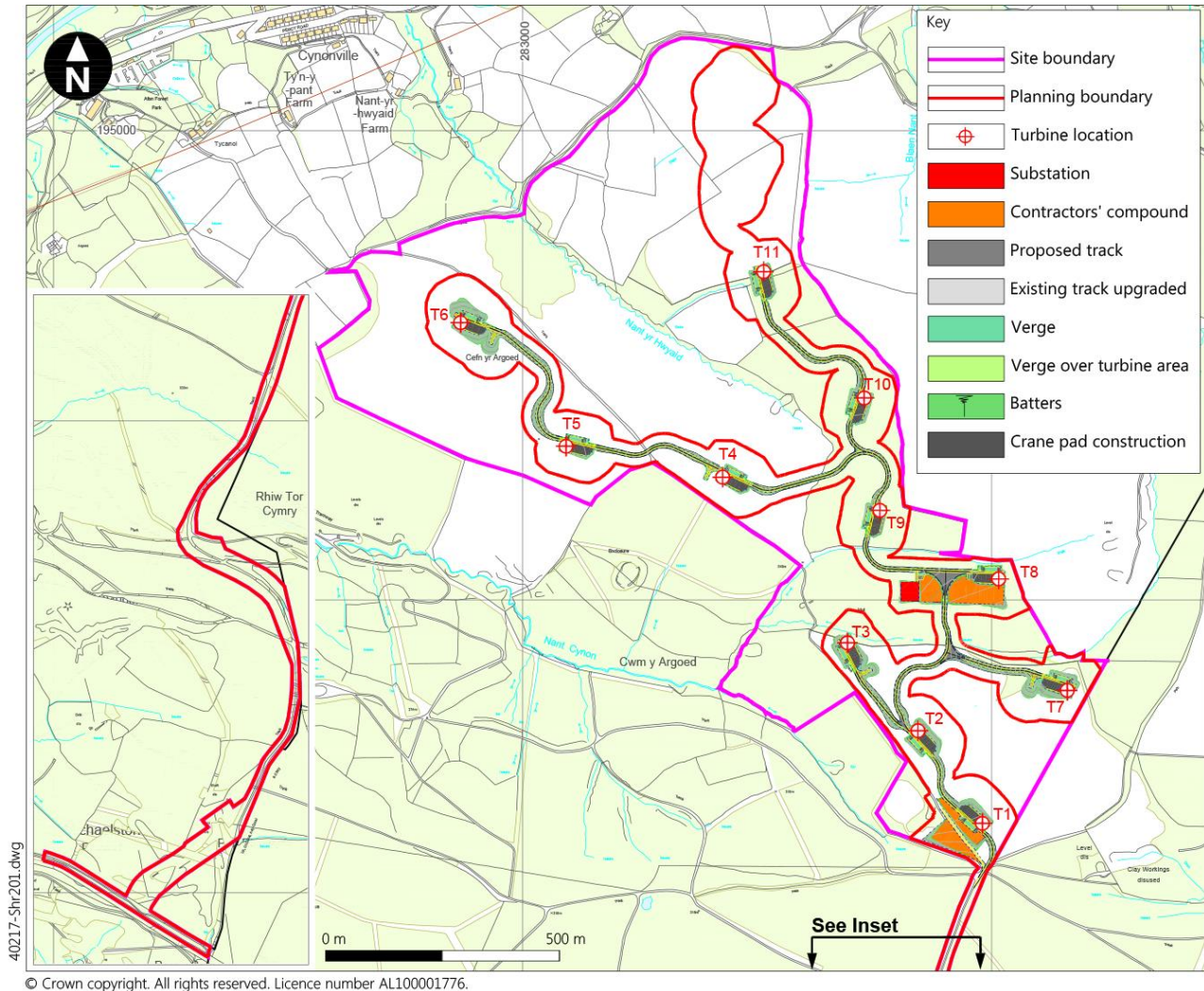
¹ These documents superseded the original submissions made in August 2014



The proposed development

A summary description of the proposed development is given below:

- Eleven wind turbines, with a maximum hub height of 100m and height to blade tip of 145m are proposed;
- Associated development including unit transformers at each turbine, access routes, electricity sub-station, and two temporary site compounds also form part of proposed development;
- The electrical output of the proposed wind farm is anticipated to be up to a maximum of 33MW. This would be sufficient on average to supply the equivalent of the domestic electricity needs of approximately 19,717 homes;
- The proposed wind farm is designed with an operational life of 25 years and permission is sought for this period of operation only. After this period the site can be fully restored or future generations can decide how they want to secure their energy needs;
- Construction of the wind farm is anticipated to take about 12 to 24 months, depending upon weather conditions; and
- The applicant, Pennant Walters (Foelt) Ltd, are a Welsh wind farm operator based within Rhondda Cynon Taff who develop wind energy projects solely within Wales.



The need for onshore wind power and the policy context

The Welsh Government Energy Policy Statement, 2010 summarises the current severe situation regarding climate change:

"Climate change is the greatest environmental, economic and social challenge facing the planet. Unless the global emissions of carbon dioxide and other greenhouse gases from energy generation and other human activities peak by around 2015 and then rapidly diminish, the world will probably see a global temperature rise of 4°C by around 2060 resulting in famine and droughts in many parts of the world, significant sea level rises, and an increasing risk of further catastrophic climate changes."

The impact of climate change in Wales is also set out within the Climate Change Strategy for Wales 2010. It summarises the position as follows:

- Our climate is changing and the scientific case for human induced climate change is clear;
- No matter how effective policies are at reducing greenhouse gas emissions, we will experience some degree of climate change; and

- Urgent and sustained action to cut emissions is needed globally to avoid the worst impacts of climate change in the future.

The 'sustainable development principle' established by the Welsh Assembly Government in the Well-being of Future Generations (Wales) Act (2015) was introduced to ensure public bodies act in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs. A key element of this is stated as *"tackling climate change by reducing the greenhouse gas emissions that cause climate change and ensuring that places are resilient to the consequences of climate change"*.

Planning Policy Wales (PPW) ed. 9 (2016) further states that:

"Tackling climate change is a fundamental part of delivering sustainable development. Climate change is one of the most important challenges facing the world and the Welsh Government has made a commitment to tackling climate change, resolving that the Government and people of Wales will play the fullest possible part in reducing its carbon footprint ... Our commitment to action on climate change is based on a scientific imperative to act and to act urgently to reduce greenhouse gas emissions and deal with the consequences of climate change."

There is therefore a clear need to tackle climate change, with renewable energy developments seen as a key element in this.

Renewable energy produces energy without burning fossil fuels that release carbon dioxide (CO₂) and contribute to climate change. Renewable energy also provides a new and alternative energy source to tackle energy security issues. Increased use of renewable energy is therefore a key part of European, UK and Welsh energy strategy. In September 2017 Lesley Griffiths, the Welsh Government Cabinet Secretary for Environment and Rural Affairs, announced to the Welsh Assembly that it was setting a target of Wales generating 70 per cent of its electricity consumption from renewable energy by 2030 and a target for one Gigawatt of renewable electricity capacity in Wales to be locally owned by 2030.

PPW9 states that the Welsh Government will aim *"to promote the generation and use of energy from renewable and low carbon sources at all scales and promote energy efficiency, especially as a means to secure zero or low carbon developments and to tackle the causes of climate change"*.

(Draft) PPW10 further states that *"the planning system has an active role to help ensure the delivery of [these²] targets in terms of new renewable energy generating capacity"* and *"Planning authorities should facilitate all forms of renewable and low carbon energy development, using up to date and appropriate evidence. Planning authorities should seek to ensure their area's full potential for renewable and low carbon energy generation is achieved and renewable energy targets are met"*.

Onshore wind power is recognised as being a deliverable, mature technology. Wind power is one of the few energy technologies that is both low in CO₂ emissions, helping to tackle climate change, yet can also be delivered quickly, affordably and is domestically secure thereby addressing the key energy security challenges. It is this critical ability to address both issues that makes wind power a central feature in Welsh Energy policy.

Technical Advice Note 8 (TAN8): Planning for Renewable Energy was published in July 2005 to provide technical advice to supplement policy set out in Planning Policy Wales (PPW). This sets out the Welsh Government target of 800MW of installed onshore wind energy capacity by 2010, and identified seven specific 'Strategic Search Areas' ('SSAs') where large wind farms could be located in order to secure much of this capacity. The proposed development is within SSA F, which has a potential capacity of 290MW (which was superseded by the Ministerial Letter 2011, which increased this to 430MW).

² The targets set by the Welsh Government Cabinet Secretary for Environment and Rural Affairs

At the end of 2016, 43% of Wales' electricity came from renewable sources (Welsh Government, 2016). The proposed Foel Trawsnant Wind Farm amended scheme could make a meaningful contribution to meeting the renewable energy targets set by the Welsh Government.

Environmental Impact Assessment

Environmental Impact Assessment (EIA) is a process by which information about the environmental effects of a project is collected, evaluated, and taken into account in its design. It considers the people and environmental resources (collectively known as 'receptors') that could be affected by the proposed development.

If the project is given consent, the EIA process provides a consideration of the most appropriate methods for its construction, operation and decommission.

Potential environmental effects

The following sections provide a brief summary of the main findings of the EIA as set out in the technical chapters of the ES. As required by *The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017*, the ES sets out whether effects on these receptors would be 'significant' or not. Effects which are considered 'significant' are deemed important enough to influence the decision to be taken by the competent authority (Neath Port Talbot County Borough Council) as to whether planning permission should be granted based on a balance of the effects.

As stated in the introduction, the assessment of effects has concentrated on potential significant effects arising from the amendments to the scheme which has already been approved in principle.

Landscape and visual

Landscape

Landscape effects can occur as a result of changes in fabric, character and values attached to the landscape arising from the construction and operation of the proposed development. This may include changes to the landscape elements and patterns within the development site and effects upon landscape character (as defined nationally by the LANDMAP system), landscape designations such as the Brecon Beacons National Park and the variety of local landscape designations that exist or are proposed in this part of South Wales.

The landscape assessment considered the potential for effects on landscape features and elements, landscape designations and LANDMAP areas. Of the 15 landscape receptors considered, the assessment concluded that there will be significant landscape effects to just four of these receptors, all of which are local to the development site and reflect the findings of the 2014 ES:

- Local landscape designation- Neath Port Talbot Special Landscape Area 6: Foel Trawsnant;;
- Local landscape designation- Bridgend Special Landscape Area 1: Foel y Dyffryn;
- Visual and sensory aspect area - CynonVS473: Mynydd Baedan; and
- Visual and sensory aspect area - NPTVS358: Foel Trawsnant.

Overall the landscape surrounding the proposed Foel Trawsnant Wind Farm amended scheme would have the capacity to accept the 11 turbines of the proposed development. Within an area extending up to ~1.5km from any proposed turbine there would be a limited number of significant landscape effects upon the same

four landscape receptors assessed as being subject to significant landscape effects in the 2014 LVIA for the approved scheme.

The construction and operation of the proposed development would result in the limited loss of some the semi-improved grazing as a consequence of the land-take for the turbine bases and foundations, the extension of the access track and for the substation. The remainder of the contractors' compound will be recovered and reseeded at the end of the construction period returning it to semi-improved grassland. As the amended proposal include a reduction in number of turbines from 13 to 11, there would be less landtake than the 2014 proposals. It is concluded that the effects upon the landscape elements within the site would not be significant.

There will be no significant effects upon the Brecon Beacons National Park or the Gower Area of Outstanding Natural Beauty, or any other national landscape designation.

Visual

The assessment of visual effects is concerned with changes to views available to people and to their visual amenity. The assessment considered potential effects on 63 visual group receptors:

- Three designated long-distance footpaths;
- One Sustrans cycle route;
- 14 prominent elevated locations and viewpoints;
- 17 settlements;
- 14 groups of private residential properties within 1.5km of a turbine;
- Eight locally promoted walking, cycling and mountain biking routes within 3km of a turbine;
- Five groups of PROW and open access land within 3km of a turbine; and
- One outdoor recreational and public amenity area.

Of these, the following receptors were assessed as likely to experience significant effects as a result of the proposed development:

- Designated long distance footpaths: Coed Morgannwg Way and St. Illtyd's Walk along which it has been assessed that significant visual effects would be experienced from locations along a maximum of 6km of the route shared by these two regional trails (Coed Morgannwg Way and St. Illtyd's Way).
- Sustrans cycle route: National Route 885 from which it has been assessed that significant visual effects would be experienced from less than 1km of the route.
- Prominent elevated locations and viewpoints: Foel Trawsant; Foel y Dyffryn; Mynydd Pwll-yr-lwrch; Rhiw Tor Cymry; Mynydd Penhydd & Pen Disgwylfa; Moel Gallt y cwm, Mynydd Bach & Waun Lluest-wen and Mynydd Pen-rhys, Mynydd Nant-y-bar & Mynydd Rhiwgregan.
- Settlements: Brynheulog (properties to the north-west beyond 1.5km), Caerau (11 properties beyond 1.5km) and Abercregan (31 properties).
- Groups of private residential properties within 1.5km of a turbine: Ty'n-y-pant Farm, Nant-yr-hwyaid Farm, north-west Brynheulog (28 properties), Cynonville (a single property) and Neuadd-wen (a single property).
- Locally promoted walking, cycling and mountain biking routes: Tarren Forgan Trail, Afan Woodland Walk, River and Railway Walk, Argoed Walk and Penhydd Trail.

- Groups of PRoW and open access land within 3km of a turbine: Area A – Foel Trawsnant, Area B – higher ground to the north and east of the Llynfi Valley and Area F – elevated areas to the south and south-west of the proposal site.
- Outdoor recreational and public amenity area: Maesteg Golf Course.

The conclusions of the visual assessment for the proposed amended scheme at Foel Trawsnant concur with those of the 2014 LVIA with the exception of a small number of number of receptors, as follows:

- River and Railway Walk, Afan Forest Park – an improved understanding of the current and imminent conditions as a result of the scheduled felling of woodland through which the Walk is routed has resulted in a conclusion of significant effects on this receptor.
- Penhydd Trail, Afan Forest Park - The sensitivity of this mountain bike trail to change has increased according to current industry guidance, and hence the level of effect has increased and is significant.
- Properties in Neuadd-wen, Afan Road – In the 2014 ES significant effects were concluded at two properties (No. 53 Afan Road and Crud-yr-Awel), whereas the updated assessment now predicts significant effects at Crud-yr-Awel only as a result of the omission of turbines 12 and 13 from the amended scheme. The Foel Trawsnant Wind Farm amended scheme therefore represents a beneficial change in comparison with the approved scheme.
- Maesteg Golf Course - The sensitivity of this recreational receptor to change has increased according to current industry guidance, and hence the level of effect has increased and is significant.

The small proportions of each of the groups of visual receptors that are predicted to experience significant visual effects is a reflection of the appropriateness of the proposal site to this scale of wind energy development. The location of the proposed wind farm, set back from the edges of a steep sided elevated area, results in views of the wind farm being wholly unavailable to many close and middle-distance visual receptors that might otherwise be expected to experience significant visual effects.

A cumulative assessment has also been completed in order to evaluate the effects that could be generated were Foel Trawsnant Wind Farm to become operational along with some or all of the other wind farms that are either already operational, have been consented or are proposed i.e. within the planning system, in a 23km radius cumulative study area. It was agreed with the local authority and Natural Resources Wales (NRW) that the scope of the cumulative assessment for the amended scheme was reduced in comparison with that from the 2014 LVIA, with the scope restricted to a summary assessment of the potential for cumulative effects to arise with the proposed East of Melin Court Wind Farm; a five turbine wind farm to be sited north of the operational Ffynnon Oer Wind Farm to the north of the proposed development. Other wind farms in the local area, such as Pen-y-Cymoedd, Ffynnon Oer, Mynydd Bwllfa, Maerdy and Llynfi Afan, have been considered in the assessment of effects described above.

The assessment has concluded that the five proposed turbines of East of Melin Court Wind Farm would appear within the same part of the horizon already occupied by the operational Pen y Cymoedd and Ffynnon Oer Wind Farms, and as a result no significant cumulative effects have been concluded.

The influence of the proposed turbines upon the surrounding landscape and upon views would be limited. Whilst significant effects would occur (as is almost inevitable with commercial-scale wind turbines), such effects would be localised in extent and the incremental influence of the turbines upon the wider landscape would not be notable. As such, the presence of the 11 proposed turbines at Foel Trawsnant would not exceed the capacity of the landscape to accommodate such development and would also be in accordance with the implicit objective of TAN 8 to accept landscape change within and immediately adjacent to SSAs.

Historic environment

The assessment of effects on the historic environment included a consideration of any effects on the settings of identified historic assets which may arise as a result of the increase in the turbine height from the permitted tip height of 120m to the proposed tip height of 145m. It also considers the proposed reduction from the approved 13 turbines to the proposed 11.

There are no designated features on site. The nearest such feature is the prehistoric enclosure, Cefn yr Argoed Camp, a scheduled monument located approximately 214m from Turbine 4. It is currently surrounded by commercial forestry which is planted right up to the monument boundary and this would entirely screen it from the proposed turbines. However, assuming a start of construction in 2020 and with a 25 year operational period, turbines would be visible from the monument for a period of in the region of 5-9 years, though partially screened by the rising ground east of the monument. Taking account of the relatively short duration of this period, it is concluded that there would not be a significant effect on this asset.

There are a number of identified historic assets within the planning boundary, but the avoidance of known assets outside of the proposed development footprint and provision for an archaeological watching brief will avoid any significant effects. It is unlikely that any surviving remains will be of more than low importance.

A cumulative assessment has been undertaken to consider potential effects with other consented and proposed wind farms within 10km of the proposed development. The only wind farm which meets this criteria is the proposed East of Melin Court Wind Farm; a five turbine wind farm to be sited north of the operational Ffynnon Oer Wind Farm. Given its location, this may affect the settings of Cefn Mawr cairn (GM581) as well as Blaen-Cwmbach Camp (GM258) and Blaen-Cwmbach Earthwork (GM277). However, the Foel Trawsnant Wind Farm amended scheme would have only a minor effect on these assets and would not contribute to a significant cumulative effect.

Non-avian ecology

Further ecological surveys were carried out in 2018 to supplement those undertaken between 2010 and 2013 to inform the Environmental Statement and planning application submitted in 2014, and to provide an up-to-date baseline to inform the assessment for the amended scheme.

The habitats and plant species at the site have not changed since the original surveys. The site is dominated by poor semi-improved grassland and marshy grassland, with all construction proposed to take place on low value habitat, except for a short section of track between turbine 7 and 8, which crosses an area of acid/neutral flush. The turbines and access tracks have been designed to avoid key wetland habitats. All significant deposits of peat (i.e. of greater than 0.5m depth) have also been avoided and no effects on peat are therefore predicted. The reduction in number of turbines means a smaller area of habitat will be affected by the amended scheme than the previous scheme.

An area extending beyond the footprint of the proposed development has been surveyed for the presence of protected species. The 2018 surveys found that bats use the site (but there are no roosts on site) and surrounding area for foraging and commuting, although not in significant numbers which is consistent with the previous survey findings. The assessment concludes that the wind farm would have only a negligible effect on bats foraging resources due to the large amount of foraging habitat available and low numbers recorded at the site relative to local and national populations.

No great crested newts, otters, badgers or water voles were found at the site. Environmental measures, including pre-construction checks for these species, would prevent or avoid any significant effects.

The applicant is committed to the implementation of a habitat management plan, the outline details of which have been provided as an Outline Habitat Management Plan document. The management plan sets out a

range of broad objectives, with the main aim to retain quality wetland habitats, but other measures are highlighted through the plan for habitat enhancement/creation proposals.

No significant effects are predicted in respect of either designated sites or protected species as a result of the proposed development, or in combination with other wind farms in the area.

Ornithology

Considerable data gathering and a range of surveys were undertaken from 2008 to 2015 to assess how the proposed Foel Trawsnant Wind Farm site is used by birds. This was supplemented by further surveys in 2017-18 to provide an up-to-date baseline to inform the assessment for the amended scheme.

There are no sites of European importance for their bird populations within 20km of the site and no National sites designated for their bird interest within 5km of the site. The site supports a typical breeding bird community of upland pasture and rough grazing, scattered gorse scrub and flushed or boggy ground. The most abundant species at the site are birds such as skylark and dunnock.

Raptor species including red kite, peregrine falcons, goshawks, hen harriers, as well as waders such as golden plover and snipe, were consistently recorded through the site surveys. No breeding of these species was recorded within or in close proximity of the site.

Whilst there may be some temporary disturbance caused to these species during the construction period evidence shows that it is unlikely that there will be any long-term change in breeding bird populations. The construction and operation of the wind farm is considered to have a negligible impact upon these birds.

The habitat management strategy for the site would seek to improve the habitat quality, in particular flush/mire and wet heath habitats (where the developer has influence over the land) for breeding waders.

No significant effects are predicted in respect of protected bird species as a result of the proposed development, either in isolation or cumulative with other wind farms within 20km of the proposed development site. Additional surveys are being undertaken in winter 2018-19 to further enhance the understanding of use of the site by birds, to ensure any measures necessary to avoid or reduce effects on species are suitably identified before construction begins.

Noise

The omission of turbines 12 and 13 from the amended scheme means that the closest turbines to receptors are now further away than in the 2014 ES.

Noise from construction and decommissioning of the proposed wind farm would be minimal, and when considered with the relatively high separation distances between the construction activities and the nearest residential receptors it has been concluded that these activities would not result in significant effects on any receptors.

Operational noise was assessed in accordance with the ETSU-R-97 Guidance 'The Assessment and Rating of Noise from Windfarms', as recommended by the Welsh Assembly Government in their Technical Advice Note 8 (TAN8): Planning for Renewable Energy.

The assessment modelled the predicted noise levels at nine residential properties in the area surrounding the site of the proposed development:

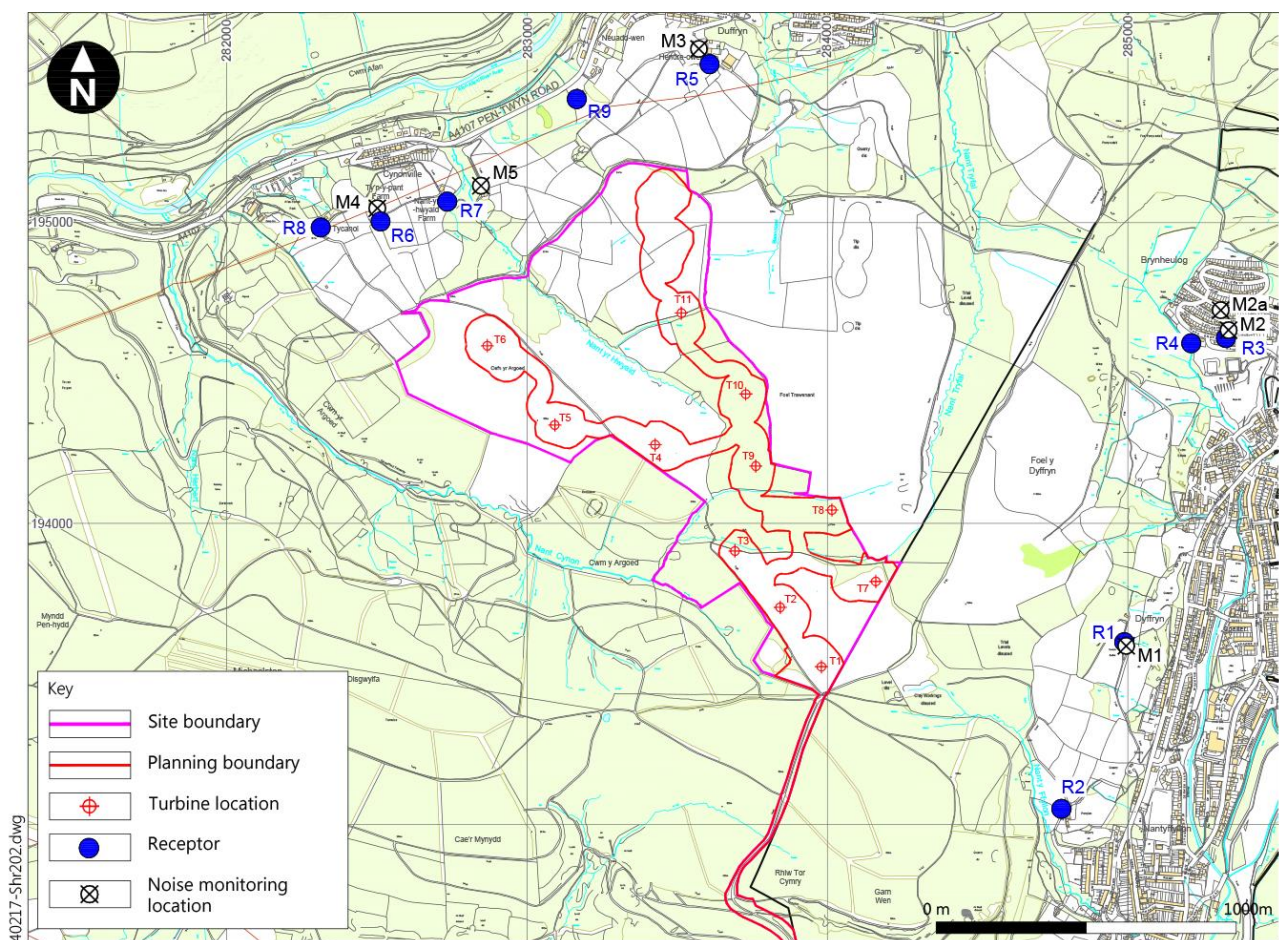
- Tonnau Defaid;
- Penylan;
- Sunnyview;

- Teras Griffiths;
- Hendre Owen Farm;
- Ty'n-y Pant Farm;
- Nant-yr-hwyaid Farm;
- Tycanol; and
- Neuadd-wen.

The assessment concluded that the operational noise levels from the wind farm would lie within the noise limits set by the ETSU Guidance in both the daytime and night-time, when accounting for the likely direction of individual turbines relative to the properties.

A cumulative assessment of the proposed development and Ffynnon Oer Wind Farm, Pen y Cymoedd Wind Farm, and Llynfi Afan Renewable Energy Park demonstrated that all projects can operate at the same time without creating a significant noise effect at the nearest sensitive receptors.

It has therefore been concluded that, as per the 2014 assessment, no significant effects are anticipated in terms of Noise as a result of the proposed development.



Water Resources and Ground Conditions

The existing conditions remain unchanged from the previous assessment in 2014. The majority of the development area is drained by tributaries flowing towards the Afon Afan to the north. There are several

small watercourses within the site boundary, with some noted as being either dry or low during certain parts of the year. Evidence of adits reflects previous mining activity beneath the site. The site overlays a 'Secondary A' aquifer – defined as permeable layers of rock capable of supporting water supplies at a local rather than strategic scale - and a small number of private water supplies (or licensed abstractions) exist in the vicinity of the site. Peat covers a large extent of the site, however the majority is shallow (<0.3m deep) and no peat deeper than 0.5m, classified as 'deep' by NRW, is located within areas proposed for infrastructure.

As in 2014, the construction, operation and decommissioning of the proposed Foel Trawsnant Wind Farm amended scheme is not expected to result in any significant effects on the water environment, provided that all recommended mitigation measures are put in place. These will include measures to manage water run-off and to prevent pollution entering watercourses during construction, and will be implemented through contractors' method statements and the site's Environmental Management Plan.

Traffic & transport

The proposed point of access into the site, as in 2014, is from the B4282 which links Maesteg and the village of Bryn, north of Maesteg Golf Club. General construction traffic (site staff) and concrete, stone and turbine deliveries will enter the site at an access point to be constructed to accommodate the type and volume of vehicles proposed.

An assessment has been completed of the likely effects of construction traffic on the local transport network and on road users. This has included a calculation of the likely number of movements of Heavy Goods Vehicles (HGVs) in and out of the development site over the anticipated 12 month construction period. This has been compared to the forecast background traffic numbers for the anticipated year of construction of 2020 when development-related traffic movements would be greatest, based on traffic counts undertaken in 2014 and 2018.

The maximum traffic impact associated with the construction of the wind farm is predicted to occur in the seventh month of the construction programme. During this month, on three non-consecutive days, 164 two-way HGV trips are predicted to be generated on each working day (82 vehicles into the site and 82 out). This equates to a maximum increase of approximately 3% in total traffic flows and 29% in HGV traffic flows.

Taking account of the environmental considerations of severance, driver and pedestrian delay, pedestrian amenity and intimidation, this increase in traffic during construction would not result in a significant effect. However, it is appropriate to consider some additional management in the form of a Construction Traffic Management Plan (CTMP) to reduce the potential for effects as far as reasonably possible. A CTMP has therefore been provided as part of the planning submission documents to Neath Port Talbot County Borough Council.

During operation of the wind farm, maintenance traffic will be minor and will be carried out using a 4x4 van on a weekly basis. If unscheduled repairs are required there may be the need for a HGV/crane however, this is not anticipated and if it occurred it would be very infrequent.

People and Business (Socio-economics, recreation and tourism)

The development will constitute a large investment in the region during the construction phase (estimated at between £40-£50m) and as such provides opportunities for both direct and indirect job opportunities, mostly associated with the construction phase, but also in relation to the long term maintenance and operation of the site.

The developer is also conscious of its role and the proposed development's role within the community. To ensure that the local community shares some of the financial benefits of the having the wind farm in the area it will implement a Community Benefit Fund, to ensure that social and community benefits of the wind farm

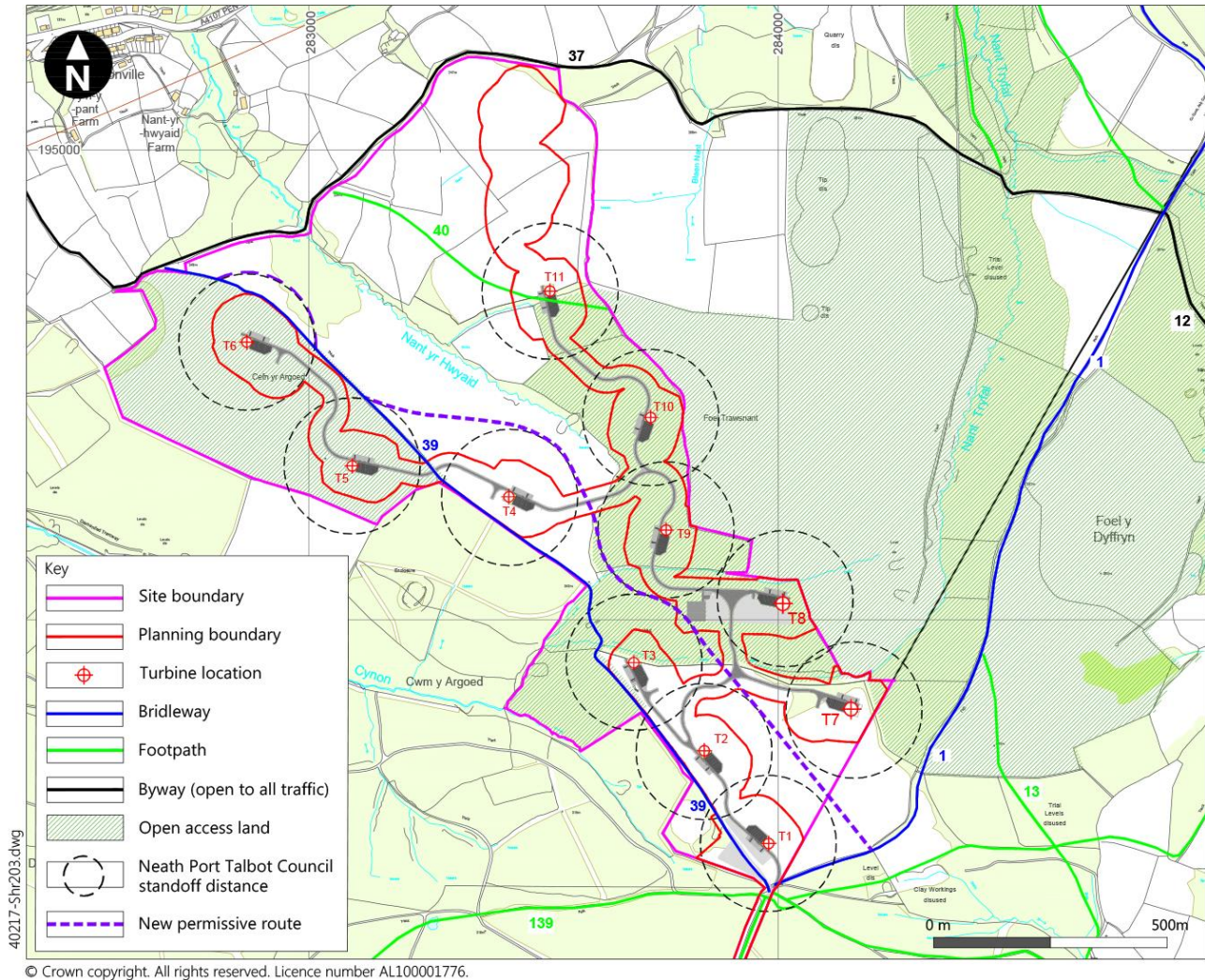
can be felt by the wider community. The mechanism of this will is likely to be via a planning obligation secured through a section 106 agreement with Neath Port Talbot County Borough Council.

At a maximum output of 33MW, the Foel Trawsnant Wind Farm amended scheme would deliver around 44% of the capacity that remains in Strategic Search Area (SSA) F³. This will go some way to meeting the regional, SSAs and national wind energy priorities and help ensure that Wales moves towards a low carbon economy and country, which is the desire of the Welsh Government. It would also reduce CO₂ emissions going into the atmosphere by replacing that generated through fossil fuels. In this scenario, over its 25 year lifespan the wind farm could result in 826,625 tonnes of CO₂ not being emitted to the atmosphere.

A number of measures will be implemented in relation to Public Rights of Way (PRoWs) which cross the site. This will include diversion, temporary closure and the creation of a new permissive route through the site, during both construction and operation. A number of health and safety signs will also be put in place through construction and operation. It is anticipated that PRoWs and Open Access Land will remain open, where possible, during construction and that permissive paths will be made available so as to allow continued use by the public during construction and operation, for example bridleway PRoW39 will be re-routed as illustrated below. The passage of walkers using the footpath along the forestry track which links the site with the B4282 will be safeguarded by site staff and advanced warning signage.

There are no significant negative effects on socio-economics, but there is one significant positive benefit, which relates to the level of investment into the local economy. These conclusions remain unchanged from the 2014 assessment.

³ Defined by the Welsh Government as one area where large-scale wind energy developments would be acceptable



Shadow flicker

A study has been undertaken to identify whether shadow flicker is likely to occur at residential properties in the vicinity of the proposed development. Modelling has been carried out to predict the duration of potential shadow flicker effects and the times of day and year when it could occur.

Up to 33 properties have been identified which have the potential to experience some level of shadow flicker as a result of the operation of the wind farm, this has been reduced from 66 properties in the 2014 assessment due to the omission of turbines 12 and 13 and the reduced micro-siting distance from 50m to 35m.

The effect of shadow flicker can be resolved using standard mitigation measures such as a turbine shut down system. The developer will commit to installing a shadow flicker impact module, prior to operation, to turbines 5, 6 and 11 in order to fully mitigate any unacceptable shadow flicker on nearby properties. With this mitigation measure in place there will be no residual effects arising from the proposed development on shadow flicker.

Aviation and telecommunications

Aviation

The site is located in an area identified by the Ministry of Defence as not having any concerns with regards to low flying aircraft.

The site is located within an area identified as not being visible on National Air Traffic Service radar systems. Therefore no impacts on NATS systems are anticipated.

Telecommunications

A Western Power Distribution (WPD) licensed radio system link was identified by Joint Radio Company (JRC) as running through the site. As agreed with JRC and WPD a scheme to ensure no effects on the link will be prepared and adopted before construction of the wind farm.

Cumulative effects

Two types of cumulative effects have been considered in the Environmental Statement:

- Inter-related cumulative effects, which consider whether any of the individual environmental topic effects resulting from the proposed development, which are not significant in their own right, could combine to create effects that are significant; and
- Inter-project effects, which consider how the environmental effects resulting from the proposed development could combine with similar topic-related effects generated by other similar developments that affect a common receptor.

Inter-related effects

The most likely types of receptors where topic effects are likely to combine are those pertaining to the amenity of the relevant human population, for example noise, visual, shadow flicker and traffic. The assessment focused on those receptors where potential significant effects have been predicted in at least two or more topics and/or where the technical assessments have shown that potential individual effects are nearing the thresholds of established national criteria. Four such receptors were identified:

- Ty'n y Pant Farm;
- Nant-yr-hwyaid Farm;
- Neuadd-wen (53 Afan Road); and
- Teras Griffiths (Brynheulog).

In all cases, no significant cumulative effects were identified, largely due to the proposed adoption of measures to minimise effects, for an example a shadow flicker control module (turbine shut down system).

Inter-project effects

Developments that are under construction, have a current valid planning permission, or have a current valid planning application, have been considered. Developments currently in operation, for example Pen-y-Cymoedd wind farm, have already been considered as part of the topic-specific assessments.

As requested by Natural Resources Wales, the only assessment of inter-project effects therefore considered the East of Melin Court Wind Farm, a proposed five turbine wind farm to be sited north of the operational Ffynnon Oer Wind Farm and located approximately 6km north of the Foel Trawsnant Wind Farm amended

scheme. Given the distance between the two sites, and the presence of the operational Ffynnon Oer and Pen-y-Cymoedd wind farms between the two, no significant cumulative effects have been identified.

Conclusion

The EIA has considered potential effects arising from the amendments to the scheme which has already been approved in principle. These changes include a reduction in the number of turbines from 13 to 11, and an increase in height to blade tip from 120m to 145m.

The EIA process has materially influenced the design of the wind farm and a number of measures (including for shadow flicker) are proposed, which, if implemented, will address, reduce and in certain instances avoid significant effects.

The proposed wind farm will contribute up to 33MW toward the renewable energy targets of the Welsh Government. The social and economic benefits that derive from this development will be indirect and will include the strengthening of the nation's security of electricity supply and mitigation of the effects arising from climate change.

Further details concerning the potential effects which could arise from the changes to the scheme are contained within the Environmental Statement. Copies of this document are available for inspection at the following address:

Neath Port Talbot County Borough Council, Planning Service, Development Control, The Quays, Brunel Way, Britton Ferry SA11 2GG: Monday-Friday 9.00 am to 5.00 pm.