An Bord Pleanála

Inspector's Report

ABP-316305-23

Development	Amend previously permitted Wind Farm development. An EIAR and NIS accompanies this application.
Location	Lands at Graiguenahown Knockardagur Boleybawn & Ironmills (Kilrush), Co. Laois
Planning Authority	Laois County Council
Planning Authority Reg. Ref.	22507
Applicant(s)	Pinewood Wind Limited
Type of Application	Normal Planning Appeal
Planning Authority Decision	Grant Permission with Conditions
Type of Appeal	Third Party
Appellant(s)	Peter Sweetman, Kieran Brophy, John Brophy, Niall Headen and Chris Palin and Concerned Residents of Spink
Observer(s)	None
Date of Site Inspection	26th July 2024
Inspector	Laura Finn

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1.0 Site Location and Description

The appeal site which has a stated area of 35.7ha is located in the rural townlands of Knockardugar, Boleybawn, Ironmills and Graiguenahown in the south of Co. Laois and Crutt, County Kilkenny. The site is located in a rural landscape which contains a mixture of wooded areas and agricultural land primarily to the northwest of the site. The proposed development site is located within an area known as the Castlecomer Plateau which is characterised by undulating hills and steep escarpments at its fringes. Dissecting the lowlands on either side of the plateau are the rivers Barrow and Nore which lie to the east and west respectively. The lowlands are a mixture of pasture and tillage with fields typically bordered by mature broadleaf tree lines and hedgerows. Agricultural land uses extend into the upland areas in the form of more marginal grazing with scrubby hedgerow field boundaries. Extensive commercial conifer plantations emerge on higher slopes throughout the Castlecomer Plateau. The site is located within, or immediately adjacent to commercial forestry plantations which dominate the local area.

The nearest towns are Abbeyleix located c. 7.5km northwest and Castlecomer located c. 8km south-east. The village of Ballinakill is c. 4km southwest of the subject site and there are a number of small crossroad settlements and numerous dispersed one-off dwellings in the environs.

The N7/M8 Motorway between Dublin Cork/Limerick and the M9 Dublin Waterford are located to the west and east of the site respectively. The N78 National Secondary Road is located 8km to the southwest of the site. Running perpendicular to the N78 is the N80 National Secondary Road. Access to the site is from local roads L-7799-0, L78001, L-77951-0, L-1798-0 and a private laneway from the Regional Road R430.

2.0 Proposed Development

The proposed development consists of amendments to the wind farm development permitted under An Bord Pleanála (ABP) Ref. PL11.248518 (Laois County Council, Reg Ref 16/620) to provide for the following;

- An increase in the rotor diameter of the wind turbines from 103 metres to 117 metres;

- A reduction in the hub height of the wind turbines from 85 metres to 117 metres, thus retaining the overall tip height of the wind turbines of 136.5 metres;
- The re-siting of wind turbines T8, T9 and T10 and their associated foundations and crane hardstanding's by 3 metres, 5.5 metres and 10 metres respectively,
- All associated site development, drainage, access and reinstatement works;
- The planning application boundary has been revised from that of ABP Reference PL11.248518 (Laois County Council Planning Register Reference 16/260);
- The Planning Application is accompanied by an EIAR and an NIS.

The applicant states that the wind turbines are being amended to the Vestas V117-4.3MW to provide for more efficient and effective generation of electricity compared to the approved GE3.2-103. The installation of the revised wind turbine model will also increase the total volume of electricity generated from 35.2 megawatts (MW) to 47.3 MW, an increase of 12.1MW or 34%.

Felling of an additional 9.3ha of commercial forestry is required to accommodate the proposed development.

3.0 Planning Authority Decision

3.1. Decision

The Planning Authority issued a Notification of Decision to Grant Permission with seven conditions attached. In summary, the conditions are as follows;

1. Carry out development in accordance with plans and particulars.
2. Planning permission granted is supplemental to ABP Ref PL11.248518 (Laois CC Ref 16/260) save as modified by this permission.
3. All Environmental Mitigation Measures from EIAR, NIS and associated documentation to be implemented in full.
4. Compliance with Waste Management Guidelines during construction and keeping haulage routes clean and safe.

5. Protection and Improvement of public roads for the duration of construction, including CTMP, surveys, cleaning, drainage maintenance and the making good of roads in the event of any damage.
6. Cash deposit/Security of €6,500 per turbine to secure the satisfactory reinstatement of the site upon cessation of the project.
7. Section 48 Financial Contribution of €1,023,000.00.

3.2. **Assessment by Planning Authority**

3.3. **Internal Planning Authority Reports**

Road Design, Water Services, Area Engineer – No objection subject to conditions.

Environment, Waste Enforcement, Chief Fire Officer – No report received.

3.4. **The Planners Report**

The planners report details the proposed development, the planning history, policy and guidelines considered and the planning context pertaining to the site and the various submissions received from prescribed bodies, third parties and internal planning authority reports in respect of the application. Further Information (FI) was requested from the Applicant which related to the following items;

- **Tree Felling** – Whether all tree felling had been assessed as part of the EIA and NIS.
- **Noise and Vibration & Shadow Flicker** – Impact of loss of vegetation following tree felling and inclusion of houses granted permission since File Ref. 16/620 to be assessed.
- **Alterations to Parent Consent** – Amendments to Red Line Application Boundary to remove the previously proposed substation in 16/620. Updated Site Notices to indicate changes to boundary.
- **Appropriate Assessment** – Querying conclusions of NIS in relation to increased output to 47.3MW compared to 35.2MW permitted.
- **Third Party Submissions** – Applicant invited to comment on 14 submissions.

The FI responses by the Applicant to the various issues raised by the Planning was considered acceptable by the Planning Authority.

The report assesses the contents of the EIAR submitted with the application. Following clarification on the FI issues discussed above, it was considered that the EIAR received by the Planning Authority on the 18th August 2022 adequately assesses the likely significant environmental effects of the proposed development and is adequate due to sufficient information to comply with the requirements of Article 5(1) of EIA Directive 2014/52/EU and the potential impacts on Population & Human Health, Biodiversity, Land & Soil, Water, Air Quality & Climate, Landscape, Cultural Heritage, Noise & Vibration, Shadow Flicker, Material Assets and Interactions of the Foregoing.

The planning report concludes in relation to the EIAR that;

> *'…..the likely significant environmental effects arising as a consequence of the proposed development have been satisfactorily identified, described and assessed. They do not require or justify refusing permission for the proposed development or requiring substantial amendments. It is considered that the EIAR is compliant with Article 94 of the Planning and Development Regulations 2001 (as amended).*'

The Planning Authorities Report then carries out an Appropriate Assessment (AA). Following receipt of FI from the applicant and having considered the NIS submitted the planning authority were satisfied that having regard to the location of the development and the proximity of the nearest SAC site, it considered the proposed development would not have potential significant effects on the Natura 2000 Network, subject to the implementation of mitigation measures set out in the submitted reports. It was concluded that the Proposed Development, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.

The Planners Reports outlines a contribution of €1,023,000.00 based on the Laois County Council Development Contribution Scheme 2017-2023 and recommends that Permission be granted subject to conditions, which I have summarised in Section 3.1 of this report.

3.5. **Prescribed Bodies**

During the course of the Planning Application, the following external reports were received;

3.5.1. **Dept. of Defence –** Provides a recommendation in relation to the type of lighting required for windfarms.

3.5.2. **Development Applications Unit (DAU) –** Condition required with respect to Archaeological monitoring.

3.5.3. **HSE –** No objection subject to a number of recommendations.

3.5.4. **Irish Aviation Authority –** No objection subject to a number of recommendations.

3.5.5. **Transport Infrastructure Ireland (TII) -** Position remains as set out in letter dated 01/09/2022.

3.5.6. **Inland Fisheries (IF) -** Position remains as set out on File Ref 16/260. Recommendations in 'Guidelines on Protection of fisheries during Construction Works in and adjacent to waters 2016' shall be adhered to.

3.5.7. **An Taisce & Commission for Energy Regulation, Kilkenny Co. Co. –** No report received.

3.6. **Third Party Observations**

Fourteen (14) no. submissions were received by Laois County Council during the initial consultation period. A further seven (7) were received following receipt of Further Information response from the applicant. Issues raised relate to the following;

- Decision premature based on the outcome of a Judicial Review 2019JR768 (JR).
- Absence of engagement/denied rights to participate in EIAR process.
- All 11 turbines are on LCC 'not open for consideration' area on the Wind Map.

- Larger Turbines will produce a total of 47.3MW, approaching SID figure of 50MW. Failed to address this and cumulative effect of larger turbines in close proximity.
- No new EIAR or noise assessment even though there is a 30% increase in turbine size.
- Impact of Noise and Shadow Flicker and health related issues from proposed blades which are 29% larger.
- Original shadow flicker based on smaller rotor size of 103m and also assumed a distance of 1.6km. A number of the proposed turbines will be far less than this distance from dwellings and the local school.
- Impact of disruptor air flow and increase in air pressure from the turbine due to lower tip of blade 15m and 19m from ground level on one property that is 50m higher than the base. Impact on health.
- Additional felling of forestry, which acts as a buffer not considered and therefore the full impact of noise and shadow flicker have not been assessed.
- Several houses are substantially less than the required 1.5km setback as per the Laois County Development Plan (LCDP). Houses within 1,170m that were not within original 1,030m diameter. Not properly consulted with on original application.
- New transport assessment required due to changing the turbine diameter.
- Impact on School Community.
- Visual Impact, Misleading Photomontages, Impact on Aviation and Impact of Red Light Pollution.
- Land ownership issue in relation to construction traffic accessing the site from the R430 to the L7800, which is not in Galetech ownership and the owner has written to advise that she no longer wishes to be involved / Letters of consent from adjoining landowners have not been supplied.
- The Vestas turbine at a hub height of 78m is questioned, appears to be 84m.

- Applicant failed to assess the impact of threatened and endangered species of birds in the locality of the site and impact on bats due to repositioning of turbines.
- Proximity to school, Impact on TV/Mobile and Broadband Signals.
- Application premature to new planning guidelines, must have regard to the Wind Energy Development Guidelines 2006 (WEDG, 2006).
- Evidence that wind turbines are ineffective in reducing CO2 emissions.
- Devaluation of property.
- Impact on Ballypickas GAA due to depopulation caused by Wind Farm.
- Non-technical summary and other documentation doesn't provide basic or sufficient information relating to various matters to determine the application.
- Environmental/ Rural Amenity Destruction caused by excavation, road widening and hardstanding areas, Proper Planning & Sustainable Development, Risk to water sources, Impact on Wildlife, Impact on Quality of life, Impact on health, Flooding on Graiguenahown Road.

4.0 Planning History

The Pinewoods Wind Farm straddles the county boundary between County Kilkenny and County Laois and was permitted by An Bord Pleanála in ABP File Ref PL11.248518 (Laois County Council (LCC) File Ref 16/260) for the part contained in Co. Laois and ABP File Ref PL10.248392 (Kilkenny County Council (KCC) File Ref 17/62) for the part contained in Co. Kilkenny. The relevant applications relating to the site are detailed below.

4.1. Subject Site

4.1.1. ABP File Ref PL11.248518 (LCC File Ref 16/260)

An Bord Pleanála approved planning with Conditions on 03/09/2019 following refusal to grant permission by LCC for 11 wind turbines each with a maximum height of up to 136.5m, 5.4km of site access tracks, 7 site entrances, meteorological mast (up to

85m), upgrade of road junction (R430/L7800) In Knockardugar, Boleybawn, Garrintaggart, Ironmills, Co. Laois. The development also extends onto lands in Crutt, Co. Kilkenny.

By way of condition, An Bord Pleanála excluded the 110kV electricity substation, switchroom, equipment compound and strain towers from the proposed development, as it was confirmed in a prior determination in **ABP File Ref ABP-303194-18** that they constituted a Strategic Infrastructure Development (SID) within the meaning of S. 182A of the Planning and Development Act 2000 (P&DA2000) (as amended).

4.1.2. **ABP File Ref PL10.248392 (KCC File Ref 17/62)**

An Bord Pleanála approved planning with conditions on 03/09/2019 following refusal to grant permission by KCC on a site of 5.27ha for 2km of site access tracks, underground electricity and communications cabling and site drainage works. The proposed development comprises part of the overall site infrastructure for ABP File Ref PL11.248518 (16/260) for Pinewood Wind Farm.

4.1.3. **Judicial Review (JR) of ABP File Ref PL11.248518 (LCC File Ref 16/260) and ABP File Ref PL10.248392 (KCC File Ref 17/62) – Kiaran Brophy and Peter Sweetman and An Bord Pleanála, Ireland and the Attorney General and Pinewood Wind Limited [2023] IEHC 730**[1]

A Judgment was delivered by Mr. Justice Brian O'Moore on the 19/12/2023, which was based on An Bord Pleanála granting two planning permissions on 03/09/2019 in favour of Pinewood which allowed Pinewood to develop a wind farm together with access tracks, underground electricity and communications, cabling and site drainage on lands in Co. Laois and Co. Kilkenny. The applicants commenced proceedings by way of JR seeking to quash the grant of these permissions. There were five issues identified in the proceedings including;

a) The use of a 2012 guide instead of a 2019 guide in relation to Bats and On Shore Turbine. Relevant to the EIA Directive which applies to bats under Articles 12 – 16 of the Habitats Directive.

[1] https://www.courts.ie/acc/alfresco/0e2a1af1-81f6-43d0-9291-c8bd0700d861/2023_IEHC_730.pdf/pdf#view=fitH

b) 14 permanent ponds across the site – not properly assessed for the purposes of EIA and Habitats Directive and consequences for AA Screening and AA.

c) Main alternatives studied – contrary to Article 5(3)(d) and Annex IV of Directive 2011/92/EU

d) In breach of Habitats Directive, relying on future assessment by and approval of the Planning Authorities.

e) An Bord Pleanála failed to give adequate reasons regarding EIA and AA.

The outcome of the Judicial Review was that the judge dismissed the proceedings in relation to all five issues identified.

4.1.4. **ABP File Ref VA11.308448**

On 22nd November 2022, An Bord Pleanála approved planning with conditions for a SID application comprising a 110kV 'loop in/loop-out' Air-Insulated Switchgear substation, electricity lines, on-site access tracks and all associated site development works.

4.1.5. **12/339**

Permission approved to retain an existing meteorological mast for the purposes of monitoring and recording wind speed.

4.1.6. **ABP PL11.VA0015**

Permission approved by An Bord Pleanála on 23rd April 2014 for the Laois-Kilkenny Reinforcement Project.

4.2. **Adjacent Site to the Northwest**

4.2.1. **02/683**

Permission granted to erect 1 no. 40m high wind anemometer mast and 1 no. 10m high wind anemometer mast and all ancillary site works.

5.0 Policy Context

5.1. Introduction

Regard is had to the following County, European, National, Regional and Other Relevant Policy documents:

5.1.1. County Policy

- Laois County Development Plan 2021 – 2027 (the Plan)

5.1.2. European Policy

- RED III (European Renewable Energy Directive (EU/2023/2413))
- European Wind Power Action Plan
- REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022
- European Green Deal 2020

5.1.3. National & Regional Policy

- National Planning Framework 2018-2040 (NPF)
- The National Development Plan 2021-2030 (NDP)
- Climate Action and Low Carbon Development (Amendment) Act 2021
- Climate Action Plan 2024 (CAP 2024)
- Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023
- National Energy Security Framework, April 2022
- Policy Statement on Security of Electricity Supply, November 2021
- Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)
- National Climate and Energy Plan 2021-2030 (NCEP)
- National Biodiversity Action Plan (NBAP)
- National Landscape Strategy for Ireland 2015-2025 (NLS)
- Regional Spatial Economic Strategy for the Southern Region 2020-32 (RSES)

5.2. Laois County Development Plan 2021 – 2027 (the Plan)

The Plan was adopted on 25th January 2022. Appendix 5 is the Wind Energy Strategy. The methodology for the strategy has been informed by a number of considerations including the amount of existing and approved capacity in the county to date, the potential of other renewable energy options including solar, available wind data and transmission network, settlement patterns and population densities of the county as

well as the relevant environmental, tourism promotion and landscape policies. Reference is also made to the wind energy strategies of adjoining counties and the DoEHLG Planning Guidelines for Wind Energy Development for Planning Authorities 2006 currently under review. Landscape policies and designations in the Plan have informed the Wind Energy Strategy 2021-2027. By superimposing the wind data maps with other designation maps and taking into account the amount of existing and approved wind energy developments, the suitability of County Laois in terms of wind energy has been subdivided into four distinct area classifications as follows;

1. **Strategic Areas** - It is considered that there are no such areas in County Laois.
2. **Preferred Areas** - One such area has been identified in County Laois and comprises Bord Na Mona cutaway bog sites and lands adjacent at an Area straddling the Laois, Tipperary, Kilkenny border between Rathdowney and Templetouhy and due northeast of the recently completed windfarm site at Lisheen, County Tipperary and Bruckana, County Kilkenny.
3. **Areas Open For Consideration** - Applications in these areas will be treated on their merits with the onus on the applicant to demonstrate why the development should be granted permission.
4. **Areas Not Open for Consideration** – These areas are not considered suitable for wind farm development due to their overall sensitivity arising from landscape, ecological, recreation and/or cultural and build heritage resources as well as their limited wind regime.

The following relevant policy in the Plan is supportive of Wind Energy; WES1: Development of Renewable Energy Generation, WES 2: Development of Low Carbon Economy, WES4: Community Involvement and Gain, WES 5: Preferred Areas, WES 6: Areas Open for Consideration, WES 7: Areas Not Open for Consideration, WES 9: Life Extension and Repowering.

Section 3.5.5 of the Plan discusses the background and strategy for Wind Energy. Table 3.1 – Wind Energy Outputs for County Laois (completed and granted) indicates that that total Constructed and Planning Granted/Awaiting Construction comprises a total of 119.4 MW approved in County Laois, which includes the current application site with an output of 35.2 MW approved.

Plan Policy in relation to Climate Mitigation Objectives which supports Wind Energy in the County include CM RE 1, CM RE 2, CM RE 5, CM RE6, CM RE 7 and CM RE 16.

5.2.1. Development Management Standards for Renewable Energy Installations

Standards for Wind Farms are set out in Chapter 3 Climate Action & Energy as follows;

DM RE 2 - Wind Energy Development

This section also refers to Section 6 and Section 7 of Appendix 5 Wind Energy Strategy for the full suite of Development Management Standards.

> '*When assessing planning applications for wind energy developments the council will have regard to:*
>
> *a) The wind energy development guidelines for planning authorities;*
>
> *b) The wind energy strategy designations map for Laois showing areas (a) Area open for consideration and (b) Areas not deemed suitable.*

In addition to the above, the following considerations will also be taken into account:

i. Impact on visual amenity;

ii. Impact on residential amenities;

iii. Scale and layout of the project and the cumulative effects due to other projects and the extent to which the impacts are visible across the local landscape;

iv. Visual impact of the proposal on the protected views and aspects;

v. Impact on nature conservation, ecology, soil, hydrology;

vi. Impact on ground conditions and geology;

vii. Impact on the road network;

viii. Impact on human health in relation to noise disturbance.

Other may be taken into account depending on the site and on a case-by-case basis.'

5.2.2. **Development Management Standards for Wind Farms in County Laois (Section 6 & 7 of Appendix 5 Wind Energy Strategy**

Development Control Standards in **Section 6** are as follows;

6.1 Buffer Zones – Ensure a setback of wind turbines from schools, dwellings, community centres and all public roads in all areas open for consideration for windfarm development in accordance with the requirements of adopted National Policy Guidelines at the time of the determination of the planning application.

NOTE – REFERENCE TO A 1.5KM BUFFER HAS BEEN REMOVED FROM THIS ORIGINAL POLICY BY MINISTERIAL DIRECTION.

6.2 Boundary – The impact of the proposed wind farms on the development potential of adjacent sites will be considered. Turbine distances from boundaries of adjacent landholdings will be assessed on a case-by-case basis.

6.3 Shadow Flicker – An Assessment of the theoretical shadow flicker shall be prepared, further assessment shall indicate the likely level of shadow flicker based on anticipated meteorological constraints. If required, mitigating measures shall be proposed.

6.8 Noise – Permitted maximum noise levels at noise sensitive residences shall be in compliance with noise specifications of the DoEHLG 'Wind Energy Guidelines'. Once commissioned the development will be monitored. In the event that the monitoring shows that any turbine is exceeding its projected noise levels and is having a detrimental noise impact, mitigating measures shall be agreed with the Local Authority.

Other relevant standards relate to Cumulative Impacts (6.4), Archaeology (6.5), Bird Migratory Routes (6.6), Fencing (6.7), Environmental Monitoring (6.9), Roads (6.10), Aquifers (6.11), Ancillary Structures and Equipment (6.12), Grid Connection (6.13), Electromagnetic Interference (6.14), Aeronautical Safety (6.15), Financial Contributions (6.16), Safety Aspects (6.17), Decommissioning of associated infrastructure at end of life (6.19).

Section 7 entitled Guidelines on Wind Farm Development Constraints in County Laois refers to Pre-planning Consultations (7.1), Pre-Application Discussion and Consultation (7.2), Siting and Design of Wind Farms (7.3) which refers to the Siting

and Design of Wind Energy Development provided in the DoEHLG's Planning Guidelines (currently under review).

5.2.3. **Map 3.2 (Volume 1) – Wind Energy Map**

Map 3.2 illustrates 'Preferred Areas', 'Areas Open for Consideration' and 'Areas Not Open for Consideration' for Wind Energy Development. The proposed wind turbines on the subject site are located on 'Areas Not Open for Consideration' under the current Plan.

I note that when ABP File Ref PL11.248518 was approved on 03/09/2019, 9 of the 11 proposed turbines were on lands designated 'Preferred Area' and the remaining 2 turbines were located within an area indicated as 'Open for consideration' as per the Laois County Development Plan 2017.

5.3. **Renewable Energy Policy Context (European, National and Regional)**

5.3.1. **RED III (European Renewable Energy Directive (EU/2023/2413))**

The revised Directive EU/2023/2413 came into force on 20th November 2023. RED III sets an overall renewable energy target of at least 42.5% binding at EU level by 2030, but it is aiming for 45%. This target is raised from the previous 32% target. It means almost doubling the existing share of renewable energy in the EU.

5.3.2. **European Wind Power Action Plan**

The EU target of at least 42.5% of renewables by 2030 will require the installed capacity to grow from 204GW in 2022 to more than 500 GW in 2030. Globally, annual wind capacity additions should reach at least 329GW per year until 2030 to achieve net-aero emissions by 2050, more than quadrupling today's deployment levels of 75GW. The plan identifies six pillars of concerted action by EC Member States and industry including acceleration of deployment through increased predictability and faster permitting, improved auction design, access to finance, creating a fair and competitive international environment, skills and industry engagement and Member State commitments.

5.3.3. **REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022**

This plan was prepared in response to the Russian invasion of Ukraine. It focuses on the need to end the EU's dependence on Russian fossil fuels and to tackle the climate crisis. It includes the accelerated rollout of renewable energy. It amends the Directive on the Promotion of the Use of Energy from Renewable Sources (Directive EU 2018/2001) to require that 45% of energy is from renewable sources.

5.3.4. **European Green Deal 2020**

The aim of this policy is to make Europe climate neutral by 2050. In 2021, the European Climate Law made greenhouse gas emission targets a legal obligation. These targets were increased from 40% to 55% by 2030.

5.3.5. **National Planning Framework 2018-2040 (NPF)**

National Strategic Outcome (NSO) 8 is to transition Ireland to a low carbon and climate resilient society. NSO 54 & 55 - to reduce our carbon footprint by integrating climate action into the planning systems & promotes the use of renewable energy.

5.3.6. **The National Development Plan 2021-2030**

The Plan sets out the investment priorities that will underpin the implementation of the NPF, one of which is climate action. Section 3.7 refers to an 80% target for renewable sources, which is described as an unprecedented commitment to the decarbonisation of electricity supplies.

5.3.7. **Climate Action and Low Carbon Development (Amendment) Act 2021**

The Act commits Ireland to the objective of becoming a carbon-neutral economy by 2050, reducing emissions by 51% by the end of the decade.

5.3.8. **Climate Action Plan 2024 (CAP 2024)**

CAP 2024 (December 2023) sets out a roadmap to deliver on Irelands climate ambition, of 51% reduction in GHG emissions from 2021-2030 and net-zero emissions by 2050. The plan aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022. The Climate Action

Plans have outlined precise goals for renewable energy, focusing on solar, onshore wind, and offshore wind generation. The Key Target for Onshore Wind is to achieve 6GW by 2025 and 9GW by 2030. The Climate Change Advisory Council has made a number of recommendations for actions in the electricity sector in particular around the need for laws to ensure access to information from smart meters, private wire connections, phase-out of coal use, storage, demand management, and the need to streamline the planning process for wind farms.

5.3.9. **Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023**

The document confirms that Irelands future energy will be secured by moving to an **electricity-led system** maximising our renewable energy potential.

5.3.10. **National Energy Security Framework, April 2022**

This sets out the Governments response to the impacts of the war in Ukraine on the energy system in Ireland. Para. 7.2 states that

> *'The replacement of fossil fuels (such as gas used in electricity generation) with renewable energy (such as onshore wind, offshore and solar power) is a key method of reducing Ireland's reliance on imported fossil fuels. The process of moving away from fossil fuels is well underway. The Climate Action Plan commits to increasing the share of electricity demand generated from renewable sources in Ireland to up to 80%, without compromising security of electricity supply, reflecting the national target to reduce emissions by 51% by 2030, and to achieve climate neutrality by 2050 at the latest*.'

5.3.11. **Policy Statement on Security of Electricity Supply, November 2021**

This states that the Programme for Government requires a 51% reduction in greenhouse gas emissions by 2030 and that 80% of electricity consumption will come from renewable sources by 2030. Ensuring energy security is a national priority, as the electricity system decarbonises towards net zero emissions.

5.3.12. **Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)**

Section 1, Security of Supply, notes that in the transition to a climate neutral future, the pathway to decarbonisation must be underpinned by affordability and security in

how we access and use energy. In the short-term, we need to address capacity shortfalls in the electricity system and ensure adequate conventional generation is in place to support the elevated levels of renewable electricity being generated.

5.3.13. **National Climate and Energy Plan 2021-2030 (NCEP)**

Ireland's target to reduce greenhouse gas emissions increased from 40% to 55% by 2030. It refers to reaching 70% of energy from renewables by 2030, underpinned by the Renewable Energy Support Scheme. Energy security is a key priority.

5.3.14. **National Biodiversity Action Plan 2017 – 2021(NBAP)**

The current NBAP has a list of Objectives and Actions which promotes biodiversity as follows, **Objective 1** supports mainstream biodiversity into decision-making across all sectors; **Objective 2** promotes the strengthening of the knowledge base for conservation, management and sustainable use of biodiversity. **Objective 3** promotes increasing awareness and appreciation of biodiversity and ecosystem services; **Objective 4** promotes conserving and restoring biodiversity and ecosystem services in the wider countryside; **Objective 5** refers to conserving and restoring biodiversity and ecosystem in the marine environment; **Objective 6** supports expanding and improving management of protected areas and species; **Objective 7** promotes strengthening international governance for biodiversity and ecosystem services. The 4th National Biodiversity Action Plan (NBAP) has been in development since October 2021. The Plan will set the national biodiversity agenda for the period 2023 – 2027.

5.3.15. **National Landscape Strategy for Ireland 2015-2025 (NLS)**

Ireland signed and ratified the Council of Europe's European Landscape Convention (ELC) in 2002 which came into effect on 1 March 2004. It obliges Ireland to implement policy changes and objectives concerning the management, protection and planning of the landscape. The National Landscape Strategy is intended to ensure compliance with the ELC and to establish principles for protecting and enhancing it while positively managing its change. It is a high-level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions. The objectives of this Strategy are;

'*to establish and implement through a series of actions, policies aimed at understanding, protecting, managing and planning our landscape. It sets out specific measures to integrate and embed landscape considerations in all sectors which influence the landscape and improve and enhance the quality of decision-making by those who have an impact on it.'*

5.3.16. **Regional Spatial Economic Strategy for the Southern Region 2020-32 (RSES))**

Chapter 5 of the RSES deals with the Environment including responding to Climate Change. It states that environmental protection and enhancement is a core component of the RSES. The relevant Regional Strategic Outcome is a Low Carbon, Climate Resilient and Sustainable Society. It acknowledges climate change as the most important long term challenge facing Ireland and states that the Regional Assembly is committed to implementing regional policy consistent with the Climate Action Plan. It further states that the RSES recognises and supports the many opportunities for wind as a major source of renewable energy. Opportunities for both commercial and community wind energy projects should be harnessed, having regard to the requirements of DoHPLG Guidelines on Wind Energy. Wind Energy technology has an important role in delivering value and clean electricity for Ireland.

The RSES sets out a number of Regional Policy Objectives (RPO), which supports the Southern Region as a Carbon Neutral Energy Region. The following are considered relevant policies; **RPO 87** Low Carbon Energy Future, **RPO 95** Sustainable Renewable Energy Generation, **RPO 98** Regional Renewable Energy Strategy, **RPO 99** Renewable Wind Energy, **RPO 219** New Energy Infrastructure, **RPO 221** Renewable Energy Generation and Transmission Network.

5.4. Ministerial Guidelines and Other Relevant Guidance

- The Wind Energy Development Guidelines, Guidelines for Planning Authorities issued by the Department of the Environment, Heritage and Local Government (June 2006) (WEDG, 2006)
- The Draft Wind Energy Guidelines published by the Department of Housing Local Government and Heritage in December 2019.

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR) (EPA 2022)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, Department of Housing, Planning, Community and Local Government (2018)
- Guidelines for Landscape and Visual Impact Assessment (3rd Edition) Landscape Institute and Institute of Environmental Management & Assessment 2013 (IEMA)
- Guidelines for Ecological Impact Assessment 2018 Chartered Institute of Ecology and Environmental Management (ICEEM)
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009)
- Scottish Natural Heritage (SNH) Bats and Onshore Wind Turbines: Survey, Assessment and Mitigation 2019

5.5. Overview of Renewable Energy Policy

I consider that European, National and Regional policy clearly supports the provision of a windfarm. The CAP24 specifically provides a target for the delivery of at least 9 GW of onshore wind energy by 2030 and the RSES policy which supports the Southern Region as a Carbon Neutral Energy Region.

5.6. Natural Heritage Designations

The River Barrow and River Nore SAC (Site Code 002162) is located c. 0.73km north (and west) of the proposed development site. The closest SPA is the River Nore SPA (Site Code 004233), located c. 4.6km southwest of the proposed development site. The Lisbigney Bog SAC (Site Code 000869) is located c. 5.1km to the west and the Ballyprior Grassland SAC (Site Code 00256) lies c. 11.1km to the northeast.

6.0 The Appeal

6.1. Grounds of Appeal

6.1.1. Third Party Appeal

The following is a summary of the main issues raised in the third-party grounds of appeal submitted against the Notification of Decision to Grant Permission issued by the Planning Authority.

The first section of the appeal is made by Mr. Peter Sweetman. For clarity, Mr. Sweetman's submission relates to the Local Authority Planning Report dated 24th March 2023. Various statements from the planner's report have been addressed in the submission. These have been numbered 1 – 10 in the appeal letter and the specific pieces of text highlighted on the Planners Report, which has been appended to the submission. I will highlight the sections of the report being referred to in the summary of grounds below;

1. The first ground relates to a statement in the planner's assessment of the following Chapters of the Applicants EIAR;
    - Chapter 1: Introduction of the EIAR (Page 12 of Planners Report).
    - Chapter 3: Description of the Existing Environment of the EIAR (Page 14 of Planners Report).
    - Chapter 4.3: Land & Soil (Page 17 of Planners Report)
    - Chapter 4.4: Water (Page 18 of Planners Report)
    - Chapter 4.5: Air Quality and Climate (Page 19 of Planners Report)
    - Chapter 4.6: Landscape (Page 20 of Planners Report)
    - Chapter 4.7: Cultural Heritage (Page 21 of Planners Report)
    - Chapter 4.8: Noise and Vibration (Page 22 of Planners Report)
    - Chapter 4.9: Shadow Flicker (Page 23 of Planners Report)

    The planners report notes in relation to both Chapter 1 and Chapter 3 of the EIAR - *'I am satisfied with the scope and comprehensiveness of this chapter'.* In relation to the assessment of Chapter 4.3, 4.4, 4.5, 4.6, 4.7 4.8 and 4.9 the

planners report concludes *'I am now satisfied with the scope and comprehensiveness of this chapter.'*

The Appellant has made a statement that - '*This is not an assessment'.*

2. The second ground relates to the Planners assessment of the EIAR Chapter 4.1: Population and Human Health, Construction Phase (Page 14 of Planners Report), which states;

> '*The applicant has set out that given the nature of the proposed development, it is assessed that all population and human health construction phase effects which are likely to occur have previously been assessed.'*

The Appellant has noted that '*These are subject to an ongoing JR for which no order has been made'.*

3. The third ground relates to the assessment of the EIAR Section 4.1: Population and Human Health, Operational Phase (Page 15 of Planners Report) which states;

> *'The applicant contends that the proposed development is not assessed as likely to result in any significant adverse effects on population or human health during the operation phase. It is stated that appropriate mitigation measures have been incorporated which will mitigate any impacts of noise and/or shadow flicker. It has been concluded that the operational phase of the development will result in no likely significant adverse effects on population or human health.*'

The Appellant has contended that '*This is a statement by the applicant not an assessment'.*

4. The fourth ground relates to the assessment of the EIAR Chapter 4.1: Population and Human Health, Mitigation Measures (Page 15 of Planners Report) which states;

> '***Mitigation Measures*** *– This section of the report sets out that all mitigation measures outlined in chapter 3 of the original EIAR will be implemented during the abovementioned phases.*

During my original assessment, I noted that the original EIAR and NIS considered the clearance of 6ha. 7.55ha of forestry clearance was conditioned by An Bord Pleanála to comply with the bat buffer zone requirements. The applicant has now considered the clearance of an additional 9.3ha of forestry. Therefore, it appeared that there was 1.55ha of forestry clearance that had not been assessed as part of the EIA and NIS and needed to be assessed.'

It also relates to the assessment of Chapter 4.5 of the EIAR, Air Quality & Climate, Mitigation Measures, which states;

*'**Mitigation Measures** – This section of the report sets out that all mitigation measures outlined in the original EIAR will be implemented during the abovementioned phases. During my original assessment, I noted that the original EIAR and NIS considered the clearance of 6ha. 7.55ha of forestry clearance was conditioned by An Bord Pleanála to comply with the bat buffer zone requirements. The applicant has now considered the clearance of an additional 9.3ha of forestry. Therefore, it appeared that there was 1.55ha of forestry clearance that had not been assessed as part of the EIA and NIS and needed to be assessed.'*

The Appellant has noted in relation to the assessments outlined above –

'I am looking for the assessment of the clearance of the forestry'.

5. The fifth ground relates to the planners assessment of the EIAR Chapter 4.2: Biodiversity (Page 16 of Planners Report) which states;

   'An NIS has been prepared for the proposed development. The NIS concludes that the proposed development will not result in impacts on designated European Sites, having regard to their conservation objectives'.

   The Appellant states '*The Natura Impact Statement says, but is there an assessment according to the requirements of Courts of Justice of European Union 258/11.'*

6. The sixth ground relates to the planners assessment of the EIAR Chapter 4.3 Land & Soil, Construction Phase (Page 16 of EIAR) which states;

*'**Construction Phase** – The applicant has set out that given the nature of the proposed development, it is assessed that all land and soil construction phase effects which are likely to occur have previously been assessed. The applicant has assessed the additional felling, relocation of wind farm turbines and increased foundations and has stated that there would be no appreciable increase in the intensity or extent or excavations at the permitted development site and as a result, the likelihood of significant adverse effects is assessed as negligible. The increase groundworks associated with the increased felling would result in a greater likelihood of effects on land and soil through erosion effects arising from vehicle movements and through surface water and wind action. The report states that the short-term duration of the construction phase and felling practices to be implemented during such works, the likely effects on land and soils have been assessed to be negative, direct, light and of a high probability with a short-term duration. The increased level of construction activities to be undertaken there is a great likelihood of soil contamination through accidental spillages or leakages. The significant effects of same are assessed as being negligible and not perceptibly greater than that previously assessed.'*

The Appellant states in relation to these Construction Phase Impact; '*And have been Judicially Reviewed no order yet.'*

7. The seventh ground relates to the planners assessment of Chapter 4.10: Material Assets of the EIAR (Page 24 of the EIAR), which concludes as follows;

   'I am satisfied with the detail included in this section'.

   The Appellant states '*This is not an assessment as required under the Directive and the Decisions of the CJEU'.*

8. The eighth ground relates to the EIA – Reasoned Conclusion on the Significant Effects (Page 28-29 of Planners Report), which states;

   *'**Environmental Impact Assessment – Reasoned Conclusion on the Significant Effects** – The Planning Authority concludes based on the Environmental Impact Assessment report (EIAR) prepared by the Applicant, that the EIAR **does not** adequately assess the likely significant environmental*

effects of the proposed development and is inadequate due to the absence of sufficient information to comply with the requirements of Article 5(1) of EIA Directive 2014/52/EU and the potential impacts.

This report comprises an EIA of the development under planning application Reg Ref 22/507. The aim of the EIA Report is to identify and assess effects of the proposed development on various environmental factors, in order to assist in considering whether the proposed developments are consistent with the proper planning and sustainable development of the area.

Following clarification on a number of matters raised within the submitted EIAR through the request for further information, it is now considered that the EIAR received on the 18th August 2022 ***does*** *adequately assess the likely significant environmental effects of the proposed development and is adequate due to sufficient information to comply with the requirements of Article 5(1) of EIA Directive 2014/52/EU and the potential impacts on Population & Human Health, Biodiversity, Land & Soil, Water, Air Quality & Climate, Landscape, Cultural Heritage, Noise & Vibration, Shadow Flicker, Material Assets, Interactions of the Foregoing.'*

The Appellant states in relation to the above;

'*Such issues result in a lack of clarity in regard to assessment of the likely environmental impacts of the proposed development and prevent the Planning Authority from carrying out a full EIA in respect of the proposed development.*

Strange considering the remarks above. If this is the Planning Authority's finding, the application should have been refused'.

9. The ninth ground of appeal relates to the planners assessment of the Appropriate Assessment (Page 29-30 of Planners Report) which states;

*'**Appropriate Assessment** – The site is not located within or adjacent to a Natura site. Sites within 15km of the proposed development include The River Barrow and River Nore SAC (Site Code 002162), Ballyprior Grassland SAC (00256), Lisbigney Bog SAC (Site Code 000869), River Nore SPA (Site Code 004233). The River Barrow and River Nore SAC (Site Code 002161), lies circa 0.73km to the north of the main project site or 2.2km downstream via the*

Graiguenhown Stream; The River Nore SPA (Site Code 004233) lies circa 4.6km south-west or 6.4km downstream via the Boleybawn Stream. The Lisbigney Bog SAC (Site Code 000869) lies circa 5.1km to the west, and the Ballyprior Grassland SAC (00256) lies c. 11.1km to the northeast.

The screening report and Appropriate Assessment submitted…'

The Appellant states in relation to the AA carried out by the Planning Authority; '*This statement show us that the person carrying out the Appropriate Assessment has no idea of the legal requirements placed on the Planning Authority. '*

10. The tenth ground of appeal also relates to the Appropriate Assessment screening Report and Natura Impact Statement (Page 29-30 of Planners Report). The Appellant states that the document submitted is titled '*Appropriate Assessment Screening Report and Natura Impact Statement.'* and that '*The only conclusion we can come to is that the Planning Authority expect the developer to do an Appropriate Assessment for the development. This is not according to the directive and the decisions of the Courts of Justice of the European Union'.*

The second part of the appeal has been submitted by Mr. Chris Palin who is objecting to the proposed development based on the size of the development in proximity to residential properties and Knock National School. Noise pollution, infra-sound and visual flicker are reasons for reconsideration. Concern raised regarding light flicker and onset of epilepsy seizures.

The third portion of the appeal has been submitted by Mr Kieran Brophy, Mr. John Brophy and Mr. Niall Headen who have attached submissions from the current application 22507 (pre and post FI). In summary, Issues raised relate to the following;

Legal/Property/Planning Issues

- Decision premature to Judicial Review 2019JR768 (JR).
- Applicant has been objecting to local people seeking to build within 500m of a proposed turbine which prevents future development on adjoining lands.
- Land ownership issue in relation to construction traffic accessing the site from the R430 to the L7800, which is not in Galetech ownership and the owner (now

deceased) has written to advise that she no longer wishes to be involved / Letters of consent from adjoining landowners have not been supplied.

- All 11 turbines are on LCC 'not open for consideration' area on the Wind Map.
- Impact on Property Values.

Public Consultation

- Absence of engagement/denied rights to participate in EIAR process.
- Several houses are substantially less than the required 1.5km setback as per the Laois County Development Plan (LCDP). Houses within 1,170m that were not within original 1,030m diameter. Not properly consulted with on original application.

Impacts of Turbines (Noise and Shadow Flicker)

- Operational Impact of Noise and Shadow Flicker and health related issues from proposed blades which are 29% larger.
- Impact of light flicker and health related issues
- The Vestas turbine at a hub height of 78m is questioned, appears to be 84m.
- Impact on health (doctors letter attached)
- Additional felling of forestry not properly assessed.
- Not confident with Mitigation Measures and turning off turbines in the event of Shadow Flicker.
- Shadow Flicker impact on solar panels on residential dwelling.

Cumulative Impacts

- Larger Turbines will produce a total of 47.3MW, approaching SID figure of 50MW. Failed to address this and cumulative effect of larger turbines in close proximity.

Bird and Bat Protection

- Impact on threatened and endangered species of birds including Curlews, Buzzards, Sparrowhawks and Peregrine Falcons Refer to letter from Birdwatch Ireland)

- Impact on Bats – another EIA required for Laois Co Co to assess impact on bats

Visual Impact

- Visual Impact

Telecommunications Impact

- Impact on TV/Mobile and Broadband reception.

Construction Impacts/ Roads and Transport Impacts

- Impacts on local roads due to construction phase development.
- Environmental/ Rural Amenity Destruction
- Flooding on Graiguenahown Road and at least one house due to tree felling.

General Impacts/Observations

- Not proper planning/sustainable development
- Proximity on School/Impact on School Community.

The final section of the appeal contends that all previous submissions regarding this Windfarm to be relevant. The relevant Laois and Kilkenny Applications are listed, as are the relevant applications submitted to An Bord Pleanála.

6.2. Applicant Response (16th November 2022

The Applicants submitted a response to the original submissions on 16th November 2022. In summary the applicant responded as follows;

- **Judicial Review –**Pinewoods Wind Farm is fully permitted - Status of JR does not affect legal position of planning application. Decision made on JR where all reliefs sought were refused. Applicant legally entitled to lodge application.
- **Adverse Health Effects –** Application has been assessed previously by the Bord for significant effects. EIAR in Vol I fully assesses likely impacts of amendments, specifically noise and shadow flicker as a consequence of the revised turbine dimensions. No resident will likely experience significant adverse health effects due to noise or shadow flicker. The Wind Farm will provide renewable energy, with associated air and climate benefits.

- **Public Consultation** - Application submitted in accordance with Section 34, which provides the public an opportunity to participate in the application process with submissions to Local Authority and right to appeal to An Bord Pleanála. On parent permission, applicant undertook extensive public consultation including one-to-one discussions with local residents, consultation with local community groups and political representatives, and public consultation events.
- **Height of Wind Turbines** – As the observers have identified, the turbine type is provided with a minimum 84m hub height as standard. Vestas have confirmed that a bespoke tower/hub height of 78m can be provided and will be made available for installation at the proposed development site. The Applicant confirms the overall tip height shall be 136.5m as per the parent permission.
- **Bird Protection** – Annex 3 (Vol I) of the EIAR provides an assessment of the likelihood of significant effects on birds. The assessment finds that there is no evidence to suggest that the baseline environment, in terms of bird populations has altered since previous survey work was undertaken. The NIS concludes there will be no impact on birds as a result of the proposed development. The Applicant has highlighted that in accordance with Condition 14 of the parent permission, annual bird surveys will be undertaken. In the highly unlikely event that there is an impact on bird species, appropriate measures advised by an ornithological expert can be implemented.
- **Visual Impact and Rural Amenity** – The Bord in granting permission for the Wind Farm concluded the development with an overall tip height of 136.5m would not have an unacceptable impact on the landscape. The LVIA (Vol I, Annex 4) concludes the proposed development will not result in a significant additional landscape or visual impact.
- **Noise and Shadow Flicker** – Effects have been comprehensively assessed in the EIAR, which confirms that no dwelling will experience levels of noise or shadow flicker such that likely significant effects could occur.

- **Bat Protection** – The likely effects of the proposed development on bats have been assessed in Annex 3 (Vol I) of the EIAR. The development has provided felling around each wind turbine to provide a bat buffer zone (92.5m), making the area sub-optimal for foraging and commuting bats and therefore reducing the likelihood of collision or other adverse effects. This is widely recognised as an effective mechanism in avoiding significant effect on bats. Post-construction monitoring is proposed and in the event of perceptible adverse effects on bats, appropriate measures will be implemented. This approach is recommended by NatureScot and recognised as best practice.
- **Telecommunications** – Likely effects assessed in Section 4.10.2 (EIAR/Vol I) and Chapter 12 (EIAR Vol II). Significant likely effects are unlikely to occur. In the event of any adverse effects, on television, mobile phone, broadband and other services, mitigation measures proposed will ensure appropriate management and remediation.

6.3. Applicant Response (12th May 2023)

The Applicant also submitted a response to the Appellants on 12th May 2023. In summary, the applicant responded as follows;

- **Issues Already Determined** - The third-party appeal largely comprises submissions previously furnished by the Appellants to the Planning Authority. The issues raised by the Appellants have been dealt with during the planning application process, specifically in the Applicants Further Information (FI) response dated 16th November 2022 to the Planning Authority. Many of the issues raised are in the main issues raised previously in respect of the approved Pinewoods Wind Farm (PL11.248518 and PL10.248392). The Applicants assert that the issues raised have already been determined by the Board and will not be addressed in their response.
- **Judicial Review Proceedings** – In response to Mr. Sweetmans reference to 'ongoing judicial proceedings', as stated in the Applicants RFI response, on 4th December 2020, Mr Justice Brian O'Moore delivered a decision in respect of the proceedings wherein he refused all reliefs sought by the judicial review (JR) applicants. The Applicants note that there is no legislative or judicial

impediment which would preclude the Board from making a decision on the appeal.

- **Forestry Felling** – The Applicant confirmed that the full extent of forestry to be felled has been assessed in the EIAR and NIS. Refer to Applicants RFI response to the Planning Authority for details of this.
- **Adequacy of EIAR** – The Applicant notes that Mr. Sweetmans remarks in relation to the adequacy of the EIAR in the initial Planners Report are unfounded and that they have been clarified in the final Planner's Report dated 21st March 2023, where the case officer concludes '*the EIAR…does adequately assess the likely significant environmental effects of the proposed development…*'.
- **Scale of Development –** The Applicant responds to Mr. Chris Palins concern regarding the size of the development in relation to residential properties and Knock National School, by asserting that the principal of the Wind Farm has already been established by An Bord Pleanála and that the EIAR demonstrates that significant effects are not likely to be experienced at any dwelling or at Knock National School.
- **Noise Pollution, Infra-Sound and Visual Flicker –** The Applicant states that the proposed development is located in a rural location and that all 37 no. dwellings within 1,170m (i.e. 10-times rotor diameter) of a wind turbine have been fully assessed in terms of likely noise, vibration and shadow flicker effects. It has been concluded that with the implementation of recognised and effective mitigation measures, no significant effects are likely to arise as a result of the proposed development.
- **Submissions to Previous Planning Applications for Pinewoods Wind Farm -** The Applicant refers the Board to the Applicants response to the Planning Authorities request for FI.
- **Renewable Energy –** The Applicant highlights the benefits of the proposed development in relation to Ireland meeting its renewable energy targets by 2030.

- **Pre-Construction Development** – The Applicants notes that the pre-construction development of the overall Pinewoods Wind Farm project is at an extremely advanced stage with planning permission having been secured for its connection to the national electricity network, a grid connection offer having been received from Eirgrid.

6.4. Planning Authority Response

No response received.

7.0 Assessment

7.1. Introduction

I have read the contents of the file in full, visited the site and surroundings and have had regard to European, National, Regional and Local policy in relation to renewable energy. I have also had regard to the submissions contained on the file including the various observers, prescribed bodies and from Laois County Council.

All three sections of this report (Planning Assessment, EIAR Assessment and the Appropriate Assessment Screening) should be read in conjunction so as to avoid unnecessary repetition under each of the sections.

The following are considered to be the main issues in the assessment of this case:

- The Assessment
- Outcome of Judicial Review (JR) on Parent Permissions for the Wind Farm
- Title/Landowner Consent
- Principle of Development
- Flooding
- Environmental Impact Assessment (Section 8.0 of this Report)
- Appropriate Assessment (Section 22.0 of this Report)

7.2. The Assessment

The Appellants have included submissions in their appeal documentation which were originally submitted to the planning authority in relation to this current planning application (LCC File Ref. 22507). These have been outlined in Section 6.1.1 above in the Grounds of Appeal. These concerns will be addressed in this section of the report and where appropriate under the relevant Chapters of the EIA in this report (See Section 8.0)

The Appellants also consider that all previous submissions regarding the permitted Windfarm to be relevant and have listed all relevant Laois and Kilkenny planning applications.

In their response, the Applicants have stated that the issues raised in the submissions have been dealt with during the planning application process, specifically in the Further Information response dated 16th November 2022 and that the Board have made their determination in relation to the Wind Farm.

For the purposes of this assessment, I am of the opinion that the principle of the Wind Farm has been established on the site by the granting of planning permission by An Bord Pleanála in the parent permissions (PL11.248518 and PL10.248392). These decisions were judicially reviewed and a judgement on the case has been issued.

The Applicants have submitted a new EIAR and an NIS to accompany the planning application, which has assessed the impact of the proposed amendments to the permitted scheme (Vol I EIAR). They have also submitted Vol II EIAR which comprises the original Pinewoods Wind Farm EIAR, the 'Permitted Development' (Pinewoods Wind Farm) and Vol III EIAR, which comprises the Pinewoods Wind Farm Substation & Grid Connection EIAR. It is my opinion that the appropriate EIAR to assess for the proposed development is Vol I as it relates to the amendments proposed. I have also reviewed Volumes II and III which establishes the baseline.

The proposed development comprises amendments to a permitted Wind Farm which includes a change to the dimensions of permitted wind turbines and the minor relocation of 3 no. of those turbines and ancillary works. I consider the principle of the Wind Farm has been established by the previous Bord planning approvals on the site and will confine my considerations to the proposed amendments.

7.3. Outcome of Judicial Review (JR) on Parent Permissions for the Wind Farm

Third-party appellants have objected to the proposed development based on the planning application being premature to the outcome of a Judicial Review which was taken against the grant of permission by An Bord Pleanála of the wind farm in case reference [2023] IEHC 730[2]. These applications are the parent permissions for the development which is currently being amended. The Judgement on the case has since been issued, in December 2023.

I have outlined the details and grounds of the JR in Section 4.1.3 of this Report and will not repeat those details here. I have noted that the JR failed on all grounds. Hence, I consider that since the JR process has concluded, there is no issue with prematurity in relation to this planning assessment and the ability of the Board to make a decision on this amendment application.

7.4. Title/Landowner Consent

The Appellants have raised the issue of land ownership, specifically in relation to construction traffic accessing the site from the R430 to the L7800, which they have stated is not in Galetech ownership. They have stated that the owner (now deceased) has written to advise that she no longer wishes to be involved.

Section 22(2)g of the Planning and Development Regulations 2001 (as amended) requires that where the applicant is not the legal owner of the land concerned, the written consent of the owner to make the application shall be submitted with the application. The Applicant has confirmed in Section 8.0 of their cover letter that prior to the submission of the planning application, the applicants undertook extensive consultation with all involved landowners, each of whom have confirmed their consent for the making of a planning application by the Applicant for the proposed development. The planning application form in Question 10 states that the applicant has lease agreements in place with all landowners including Mr Michael McEvoy, Colm McEvoy, Ms. Noreen Cahill, Mark & Mary Mansfield and Coillte CGA. Letters of

[2] https://www.courts.ie/acc/alfresco/0e2a1af1-81f6-43d0-9291-c8bd0700d861/2023_IEHC_730.pdf/pdf#view=fitH

Consent from each landowner was submitted with the application. I am satisfied that the Applicant has the relevant consents to submit the planning application.

The written consent under art. 22(2)(g) is required for the making of the application only and need not relate to the carrying out of the development. This principle was upheld in *Buckley & Grace v An Bord Pleanála*, where consent was withdrawn after the planning application was submitted but before the application was determined by the planning authority / by the Board on appeal. It was held that because the consent was valid at the time of the original application, the planning application could still be determined notwithstanding that landowner consent was withdrawn in the intervening period.

With regard to this issue, Section 5.13 of the Development Management Guidelines (2007) refers to *'Issues relating to title of land'* and states that the planning system is not designed as a mechanism for resolving disputes about title to or rights over land and that these are ultimately matters for resolution in the Courts. The Guidelines advise that where there is doubt in relation to the legal title of the applicant, the Planning Authority may decide to grant permission, however, a grant of permission is subject of Section 34(13) of the Planning and Development Act 2000 (as amended), which states that *'a person is not entitled solely by reason of permission to carry out any development'*.

Hence, in the event of planning permission being approved for the proposed amendments, the applicant will require the relevant landowners consents to carry out the works as permitted.

7.5. Principle of Development

This section should be read in conjunction with Section 8.0 below (Environmental Impact Assessment).

When the parent permission on the site was approved by An Bord Pleanála in File Ref PL11.248518, 9 no. of the 11 no. proposed turbines were located on lands designated '*Preferred Area'* and the remaining 2 no. turbines were located within an area indicated as '*Open for consideration'* as per the Laois County Development Plan 2017.

Under the current development plan the approved wind turbines, which are the subject of the amendment application are now located in '*Areas Not Open for Consideration'* for Wind Energy as per Map 3.2 - Wind Energy of the LCCDP21.

This issue has been raised by the Appellants who have objected to the proposed development on the grounds that Wind Energy is not open for consideration on the subject site.

As stated in the statutory notices, the application seeks permission for alterations to the wind farm permitted under ABP File Ref PL11.248519 (LCC File Ref 16/260). The changes include increasing the rotor diameter of the wind turbines from 103m to 117m, while reducing the hub height of the turbines from 85m to 78m, thus retaining the overall tip height of the wind turbines of 136.5m, re-siting of wind turbines T8 by 3m, T9 by 5.5m and T10 by 10m. The felling of 9.3ha of commercial forestry is also required to accommodate the proposed development. The proposed increase in size of the rotor diameter and re-siting of turbines and other amendments will be assessed separately in the Environmental Impact Assessment in Section 8.0.

In assessing the principle of the proposed development, the planning history of the site is crucial. The principle of development upon which amendments are now sought is established under the parent permission approved by An Bord Pleanála under File Ref PL11.248518. The wind farm development has also been through a Judicial Review process, where all grounds were dismissed.

This application pertains solely to modifications to an already permitted wind farm. Notwithstanding the proposed design changes, the primary focus of the amendments is to enhance the efficiency and capacity of the permitted wind farm, aligning with national and local renewable energy policies aimed at increasing renewable energy output and reducing carbon emissions.

Nevertheless, Development Plan policy and designation compliance are also significant considerations, as well as regard being had to the Draft Wind Energy Development Guidelines for Planning Authorities (DHPLG, 2019) in relation to the siting and development of wind turbines.

I consider the proposed development aligns with the Local Authority planning policy aimed at supporting renewable energy generation and transition to a low-carbon

economy. In this regard **LCCDP21 Policy, Action Area 4 - ENERGY** has a local county target to;

> '*Support the development of wind energy that has been permitted to date within the county by 2030'.*

In addition, it is clear that the approved windfarm has been included in Table 3.1 and Table 3.3 of the **LCCDP21**, which relates to County Laois's contribution in terms of permitted applications to realising overall national targets, which has been stated as being 119.4MW in total by the end of the Plan Period. Table 3.1 notes the subject site as having planning granted / awaiting construction with a rated energy output of 35.2MW. 35.2MW is c. 29% of the expected wind energy completed or granted permission / awaiting construction in 2021 in the County.

I consider the proposal does not involve revisiting the principle of wind energy development but seeks to improve turbine design and power output. Given the existing permission for 11 no. turbines, the modifications are seen as acceptable, subject to standard planning considerations and compliance with relevant objectives. The subject site has already undergone a thorough legal and development process and the increased rotor diameter and other minor amendments is supported by national, regional and local planning guidance.

At a national level, Wind Farm development is in my opinion clearly consistent with the overall objectives of the Climate Action Plan 2024 regarding reduction in greenhouse gas emissions and the target of net zero by 2050. Under the heading of Electricity, the Climate Action Plans have outlined precise goals for renewable energy, focusing on solar, onshore wind, and offshore wind generation. The Key Target for Onshore Wind is to achieve 6GW by 2025 and 9GW by 2030. I consider that the proposed development would clearly be such as to assist in the achievement of that target.

Having regard to European, National and Local Policy in relation to the rapid delivery of renewable energy and specifically National Policy which identifies the need to deliver 9GW of Onshore wind by 2030, in order to facilitate Irelands commitment under the Climate Action and Low Carbon Development (Amendment) Act 2021 to the objective of becoming a carbon-neutral economy by 2050.

Notwithstanding the change in designation of the lands under the new Laois County Development Plan, it is my view that the proposed development is seeking permission

for amendments to an existing permission PL11.248518 and therefore would not materially contravene the Laois County Development Plan. The nature, location and principle of the permitted turbines were addressed fully by the Board under file Ref PL11.248518.

In conclusion, it is my view that the proposed amendments to the permitted development would be acceptable in principle at this location. The proposed modifications do not fundamentally alter the nature of the permitted wind farm but seek to optimise its performance and alignment with current renewable energy goals. I consider the primary focus of the proposed amendments is to enhance efficiency and capacity of the permitted wind farm. I am satisfied the proposed development is supported by European, National, Regional and Local Policy in relation to moving from an oil, peat, coal and gas-based energy system to an electricity-led system maximising our renewable energy potential, as set out in Section 5.0 of this report and it would contribute to the achievement of European and National renewable energy targets.

7.6. **Flooding**

The Appellants have stated that flooding has occurred on the Graiguenahown Road and that at least one house was flooded due to tree felling related to the application site. No details have been provided by the Appellant in substantiating the matter of flooding.

To identify areas at risk of flooding in the vicinity of the site, I have reviewed the OPW's CFRAM River and Coastal Flood Events Maps and the Past Flood Events Map (www.floodinfo.ie). No Past Flood Events were indicated on the OPWs Map on or around the subject site. The CFRAM Map shows the extents of the indicative 1 in 100-year flood zone. There was no 1 in 100-year fluvial flood zones mapped within the subject site or in the surrounding area.

I have reviewed the **LCDP2021** Flood Map 10.3, which indicates areas of the County which are located in Flood Zone A (1 per cent (1 in 100) or greater change of flooding each year) and Flood Zone B (up to a 0.1 per cent (1 in 1000) chance of flooding each year). The subject site is not located within either Flood Zone A or Flood Zone B. Hence, the subject site is not located within a potentially significant flood risk area.

I have reviewed the mitigation measures proposed in the Applicants EIAR, Vol II Chapter 6, Water, in relation to management of surface water and prevention of flooding. In summary, the key mitigation measures of the proposed development is to ensure all surface water runoff is treated (water quality control) and attenuated (water quality/flood management control), prior to diffuse discharge at pre-existing greenfield rates. As such, the mechanism by which downstream flooding is prevented and controlled is through avoidance by design.

I am satisfied that the subject site is not located within an area potentially at risk of flooding, i.e. Flood Zone A or B. I consider the mitigation measures proposed by the Applicant in the EIAR in Chapter 6 of Vol II are satisfactory and that the proposed amendment application will not increase the risk of flooding on the subject site, the surrounding area or downstream.

7.7. Other Matters

I acknowledge the Appellants concerns regarding their ability to obtain planning permission to build homes within close proximity of a wind turbine. I cannot comment on individual planning applications outside the scope of this current application.

8.0 Environmental Impact Assessment (EIA)

8.1. EIA Screening (See Form 1 – Appendix 1)

The proposed development comprises amendments to a permitted wind farm which has previously been subject to EIA based on the development comprising more than 5 turbines. Schedule 5 of the Planning and Development Regulations, 2001 (as amended) transposes Annex I and II of the EIA Directive and sets out prescribed classes of development, for which EIA is required. The following threshold relating to the development for wind turbines is relevant for the approved Wind Farm development:

- Part 2 (3) Energy Industry

  (i)- Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts.

In relation to this current amendment application, the following is relevant:

- Schedule 5, Part 2, Para. 13 Changes, extensions, development and testing, (a) *Any change or extension of development which would:-*

    (ii) result in an increase in size greater than-

    - *25 per cent, or*
    - *an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.'*

The proposed Vestas V117-4.3MW wind turbines will have a total output of 47.3MW compared to the approved output of 35.2MW, which will result in an increased output of 12.1MW or 34%. The proposed increase in electrical output for the amendment application exceeds 25% of the output of the permitted development (25% of the permitted development being greater than 50% of the appropriate threshold). Hence, the proposed development falls for assessment under the EIA Directive. The Application is accompanied by an Environmental Impact Assessment Report (EIAR) which is examined and assessed in this section of my report.

8.2. EIA Structure

This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European Directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

> a. Consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and
>
> b. Includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and

the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

This EIA section of the report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- Population and human health,
- Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- Land, soil, water, air and climate,
- Material assets, cultural heritage and the landscape,
- The interaction between the above factors, and
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Boards decision, should they agree with the recommendation made.

8.3. Issues Raised in Respect of EIA

8.3.1. Adequacy of Planning Authority EIA

The Appellant has raised the point in their appeal that the Local Authority did not carry out an assessment of the various Chapters of the EIA as required under the legislation (See Section 6.1.1 above for details of Appellants concerns in relation to the Planning Authority Case Officer Report). The Chapters noted in the appeal include Chapter 1, Introduction, Chapter 3, Description of the Existing Environment, Chapter 4.1 Population and Human Health, Chapter 4.3 Land & Soil, Chapter 4.4 Water, Chapter

4.5 Air Quality & Climate, Chapter 4.6 Landscape, Chapter 4.7 Cultural Heritage, Chapter 4.8 Noise & Vibration and Chapter 4.9 Shadow Flicker, Chapter 4.10 Material Assets.

The Planning Authorities decision on this application was appealed and the Board is now the competent authority for making the decision.

In this Planning Inspectors report, I have assessed the Applicants EIAR and accompanying documentation including its compliance with the requirements of Article 94 and Schedule 6 of the Regulations 2001. My report contains a reasoned conclusion at the end of my assessment.

8.3.2. Other Issues Raised in Respect of EIA

Issues raised by the appellants are detailed in the Grounds of Appeal (Section 6.1.1) and will not be repeated here. Issues raised will be addressed under the EIA Chapter they relate to in this report.

8.4. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

The Applicants EIAR is presented as three volumes:

- Volume I – Proposed Developments Environmental Impact Assessment Report (EIAR).
- Volume II – Comprises the original Pinewoods Wind Farm EIAR, the 'Permitted Development' (Pinewoods Wind Farm)
- Volume III – Comprises the Pinewoods Wind Farm Substation & Grid Connection EIAR
- A Non-Technical Summary (NTS) is provided in Annex 8 of the Volume I

For the purposes of the assessment, the three individual EIARs which have been submitted with the planning application (as described above), will be referred to as Vol. I, Vol II and Vol III.

I assess below compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended);

Table 8.1. Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b).
A description of the proposed development site and its location and setting is contained in Vol I, Section 3.0 (Description of the Existing Environment). The section provides a description of the existing receiving environment (baseline). The section notes that the development of the subject site for wind turbines has previously been subject to EIA and was considered unlikely to have significant effects on any sensitive receptors including local communities, flora, fauna, water or landscape. The applicant asserts that the context, character, significance and sensitivity of the receiving environment has not materially altered in the intervening period since the EIAR for the permitted development (Volume II) was prepared. The description is adequate to enable decision making.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).

Chapter 4.0 of the EIAR, Vol I describes the significant effects of the amendments to the permitted development on the environment as follows;

Table 8.1.1 – Summary Table of Adequacy of Information on Likely Significant Impacts

Technical Chapter	Description of Likely Significant Impacts	Adequacy of Information (Y/N)
Section 4.1, Vol I Population and Human Health **Chapter 3, Vol II** **Chapter 4, Vol III**	Baseline Environment – Chapter 3 (Vol II) and Chapter 4 (Vol III) Potential Impacts – Chapter 3 (Vol II) and Table 3.11A (Vol II) Mitigation – Chapter 3, Section 3.5 (Volume II) Residual Impacts –Section 4.1 (Vol I) and Table 3.11A (Vol II) Cumulative Impacts – Section 1.4 (Vol I) and Section 4.1 (Vol I)	Y
Section 4.2, Vol I Biodiversity **Chapter 4, Vol II** **Chapter 5, Vol III**	Baseline Environment – EcIA, Annex 3 (Vol I), Chapter 4, Vol II and Chapter 5.3, Vol III Potential Impacts, Mitigation Measures, Residual Impacts and Monitoring – Vol I, EcIA, Annex 3, Section 5.0 Cumulative Impacts – Vol I, EcIA, Annex 3, Section 5.2.5	Y
Section 4.3, Vol I Land & Soil **Chapter 5, Vol II** **Chapter 6, Vol III**	Baseline Environment – Chapter 5, Vol II Potential Impacts – Chapter 5.3.3, Vol II Mitigation Measures & Residual Impacts – Chapter 5.4, Vol II Cumulative Impacts – Section 1.4 (Vol I) and Section 4.3 (Vol I)	Y
Section 4.4, Vol I Water **Chapter 6, Vol II** **Chapter 7, Vol III**	Baseline Environment – Vol I, Annex 2, Revised Preliminary Surface Water Management Plan (SWMP), Chapter 6, Vol II Potential Impacts – Chapter 6.3, Vol II Mitigation Measures & Monitoring, Residual Impacts – Vol I, Annex 2, Revised Preliminary Surface Water	Y

	Management Plan (SWMP), Chapter 6.4, Vol II and Annex 2, Vol I (Preliminary Construction & Environmental Management Plan), Vol III Chapter 7.5 and Surface Water Management Plan (Annex 3.5) Cumulative Impacts – Section 1.4 (Vol I) and Section 4.4 (Vol I), Chapter 6.4.6, Vol II	
Section 4.5, Vol I **Air Quality & Climate** **Chapter 7, Vol II** **Chapter 8, Vol III**	Baseline Environment – Chapter 7, Vol II Potential Impacts – Chapter 7.3, Vol II Mitigation Measures & Monitoring, Residual Impacts – Chapter 7.4 Vol II Cumulative Impacts – Section 1.4 (Vol I) and Section 4.5 (Vol I), Chapter 8.6 Vol III	Y
Section 4.6, Vol I **Landscape** **Chapter 8, Vol II** **Chapter 9, Vol III**	Baseline Environment, Visual Impacts – Vol I, Annex 4, Landscape and Visual Impact Assessment (LVIA), Chapter 8, Vol II (Comparative set of photomontages) Potential Impacts – Table 1, LVIA, Vol 1, Annex 4 and Conclusion Mitigation Measures, Residual Impacts, Cumulative Impacts – Conclusion of LVIA – No residual or cumulative impacts and no mitigation required because no likely impacts	Y
Section 4.7, Vol I **Cultural Heritage** **Chapter 9, Vol II** **Archaeology & Cultural Heritage** **Chapter 10, Vol III**	Baseline Environment – Chapter 4.7 Vol I, Chapter 10 Vol II Potential Impacts – Chapter 9.3, Vol II Mitigation Measures & Monitoring – Chapter 9.4 Vol II Residual Impacts – Chapter 9.4.2, Vol II Cumulative Impacts – Section 1.4 (Vol I), None noted in Vol II	Y
Section 4.8, Vol I **Noise & Vibration** **Chapter 10, Vol II** **Noise** **Chapter 11, Vol III** **Noise & Vibration**	Baseline Environment – Chapter 4.8 Vol I, Operational Phase Noise Impact Assessment (NIA) (Annex 5, Vol I), Chapter 10 Vol II Potential Impacts – NIA, Section 4.0 (Results) Mitigation Measures & Monitoring – NIA, Section 5.0 (Curtailment Scheme) Residual Impacts – NIA, Section 6.0 (Conclusion) Cumulative Impacts – Section 1.4 (Vol I), None noted in NIS	Y
Section 4.9, Vol I **Shadow Flicker** **Chapter 11, Vol II** **Chapter 12, Vol III**	Baseline Environment – Chapter 4.9 Vol I, Chapter 11 Vol II Potential Impacts – Chapter 4.9 Vol I, Table 6 of Chapter 4.9, Vol I and Shadow Flicker Prediction Modelling (Annex 6, Vol I) Mitigation Measures & Monitoring, Residual Impacts, Cumulative Impacts – Chapter 4.9 Vol I	Y
Section 4.10, Vol I **Material Assets including Transport and Access, Telecommunications and Aviation** **Chapter 12, Vol II**	Baseline Environment – Chapter 4.10 Vol I, Chapter 12 Vol II and Chapter 13 Vol III (Telecommunications) and Chapter 13 Vol II (Transport & Access) Chapter 4.10.3 (Aviation) Potential Impacts – Chapter 4.10 Vol I, Traffic Impact Assessment (TIA), Drawings and Road Safety Audit (RSA) (Annex 7, Vol I), Chapter 4.10.3 (Aviation) Mitigation Measures & Monitoring, Residual Impacts – Chapter 13, Vol II, TIA (Annex 7, Vol I) for Transport	Y

Telecommunications & Chapter 13 Transport & Access **Chapter 13, Vol III Material Assets**	& Access and Chapter 12 Vol II for Telecommunications Cumulative Impacts – Section 1.4 (Vol I), Chapter 4.10 Vol I, Chapter 14, Vol III	

Interactions and Foregoing are considered in EIAR Vol I, Section 4.11 which needs to be read in conjunction with Chapter 14 Vol II, and a Summary and Conclusions is presented in EIAR, Vol I, Chapter 5.0.
It is noted that the most common interactions are between population and human health (human beings) and noise and vibration (noise), shadow flicker, landscape and transport and access.

I note the appellants concern regarding cumulative effects of larger turbines in close proximity to each other. An assessment of the likely significant direct, indirect, and cumulative effects of the development is carried out for each of the technical chapters of the EIAR. The assessment has cross-referenced 3 separate EIARs, which have been assessed in conjunction.

I am satisfied that the assessment of significant effects is comprehensive and robust and enables decision making.

A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).

The EIAR includes designed-in mitigation measures and measures to address potential adverse effects identified in technical studies. See Table 8.1.1 above indicating location of Mitigation Measures for each technical EIAR Chapter. Mitigation measures comprise standard good practices and site-specific measures and are capable of offsetting likely significant adverse effects identified in the EIAR, for the reasons stated in the assessment below.

A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).

Alternatives Considered are addressed in Section 1.7, with further detail contained in Section 2 of Vol I. The applicant has not undertaken an assessment of alternative sites or location due to this application being an amendment to an extant permission. It is noted that these issues were addressed in the parent permission. As part of the current application, the applicant has considered a range of turbine models and designs and has chosen the Vestas V117-4.3MW model due to advancements in technology and the proposed turbines increased generation efficiency versus those permitted.
I am satisfied, therefore, that the applicant has studied reasonable alternatives in assessing the proposed development and has outlined the main reasons for opting for the current proposal before the Board and in doing so the applicant has taken into account the potential impacts on the environment.

Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).

A description of the baseline environment and likely evolution in the absence of the development.

A description of the location is contained within Chapter 3 of Vol I.
A description of the baseline environment is contained in the submitted EIARs as described in Table 8.1.1 above.

A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or

lack of knowledge) encountered compiling the required information, and the main uncertainties involved

The methodology employed in carrying out the EIA, including the forecasting methods is set out, in each of the individual chapters assessing the environmental effects. The applicant has indicated in the different chapters of where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA. I comment on these, where necessary in the Summary Table below and for the reasons stated, I am satisfied that forecasting methods are adequate as outlined in Table 8.1.2

Table 8.1.2 – Summary Table of Adequacy of Forecasting Methods Used

Population and Human Health	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR and Permitted Pinewoods Wind Farm Substation and Grid Connection EIAR.	I consider the findings and conclusions of An Bord Pleanála in respect of the permitted developments remain valid.
Biodiversity	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
No Forecasting carried out for this Chapter	N/A
Land and Soil	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
No Forecasting carried out for this Chapter	N/A
Water	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR and Permitted Pinewoods Wind Farm Substation and Grid Connection EIAR. A qualitative assessment has been carried out on the Water Environment and no specific Forecasting has been used. A revised Surface Water Management Plan (SWMP) (Annex 2, Vol I) was prepared for the site using Reference Information listed in Chapter 2 of that report (2.1 Legislative Background and 2.2 Construction Industry Research and Information Association (CIRIA) – Guidance Manuals.)	**Omissions/Difficulties** No omissions or difficulties have been noted. **Adequacy of Forecasting** I consider the findings and conclusions of An Bord Pleanála in respect of the permitted developments remain valid. I am satisfied that the updated SWMP in Annex 2, Vol I is adequate based on the legislation and guidance used by the applicant. It provides a Drainage System Overview, Detailed Design Considerations and Provides Construction Phase Mitigation and Operational Considerations. Potential effects will be mitigated with the appropriate use of SuDS.
Air Quality & Climate	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR (Chapter 7, Vol II) and remains unchanged.	I consider the findings and conclusions of An Bord Pleanála in respect of the permitted developments remain valid.
Landscape	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
No Forecasting carried out for this Chapter	N/A
Cultural Heritage	

Description of Forecasting Method Used	Adequacy/Omissions/Difficulties
No Forecasting carried out for this Chapter	N/A
Noise and Vibration	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR and Permitted Pinewoods Wind Farm Substation and Grid Connection EIAR (Chapter 10, Vol II). Due to increased construction activities and an alternative turbine type, a further assessment was carried out by the Applicant for the amendments. For the Construction phase no further noise effects above what has previous been permitted on the site. For the operational phase, a revised operational phase noise impact assessment was prepared (See Annex 5, Vol I) A series of computed based prediction models were prepared to calculate the noise level associated with the proposed development. Best practice guidance contained within the Institute of Acoustics guidance document, A good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (2013) has been utilised and in accordance with instruction from the Applicant (as advised by the Turbine manufacturer, Vestas), the uncertainty allowance to be used for the Vestas V117-4.3MW is +1dB. Applicable noise limits at sensitive receptors is in accordance with Condition 19 of the parent permission and based on the previously recorded noise levels presented in the EIAR (Vol II).	**Omissions/Difficulties** No omissions or difficulties have been noted. **Adequacy of Forecasting** Methodology and Assumptions are described in Section 2.0 of the updated Noise Impact Assessment contained within Annex 5, Vol I. I am satisfied that the forecasting methodology used are adequate in respect of the likely significant effects in relation to Operational Phase Noise.
Shadow Flicker	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR (Chapter 11, Volume II). Previously assessed in accordance with the Wind Energy Development Guidelines for Planning Authorities 2006 (WEDG, 2006). For the current application, a revised Shadow Flicker Impact Assessment was undertaken to provide a comparative analysis between the permitted and the proposed wind turbines. The revised impact assessment was undertaken using specialist WindPro shadow flicker prediction modelling software, which is contained in Annex 6 of Vol I, EIAR. This software was also used on the	**Omissions/Difficulties** No omissions or difficulties have been noted. **Adequacy of Forecasting** I consider the findings and conclusions of An Bord Pleanála in respect of the permitted developments remain valid. Table 6 provides the predicted 'worse case' and 'expected' shadow flicker levels at each dwelling and assesses whether the proposed development would result in an exceedance of the

parent permission and hence the results are directly comparable. The potential for unmitigated shadow flicker occurrence within a defined 10 rotor diameter study area was modelled. Due to the larger rotor of the Vestas V117-4.3MW turbine, 37 no. dwellings (located within 1,170m of a wind turbine) are now located within the assessment area compared to 33 dwellings (located within 1,030m of a turbine) on the parent permission. It is acknowledged that the WEDG 2006 are currently being revised. A draft version of the replacement Wind Energy Development Guidelines (WEDGs) was published in December 2019. The final version is awaiting publication. Until the 2019 document is published in final form, the Government advises that all wind farm planning applications are to be assessed against the 2006 guidelines.	maximum permissible limit shadow flicker limits outlined in the WEDG 2006 and as per An Bord Pleanála at Condition No. 20(a) of the parent permission. I am satisfied that the updated Shadow Flicker Impact Assessment in Annex 6, Vol I which comprises of Shadow Flicker Prediction Modelling, is adequate based on the legislation and guidance used by the applicant.
Material Assets (Traffic)	
Description of Forecasting Method Used	**Adequacy/Omissions/Difficulties**
Previously assessed in the permitted Pinewoods Wind Farm EIAR (Chapter 13, Vol II) including response to Further Information Request. A cumulative assessment of the likely construction phase traffic and access effects was undertaken for the permitted development and permitted Pinewoods Wind Farm Substation & Grid Connection EIAR (Chapter 13, Vol III). Annex 7 of Vol I, includes a copy of the Traffic Impact Assessment, accompanying drawings and Road Safety Audit.	**Omissions/Difficulties** None noted. **Adequacy of Forecasting** I consider the findings and conclusions of An Bord Pleanála in respect of the permitted developments remain valid. I am satisfied that the Forecasting carried out for Traffic is adequate.
Material Assets (Telecommunications & Services)	
No Forecasting carried out for this Chapter	N/A
Material Assets (Aviation)	
No Forecasting carried out for this Chapter	N/A

A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.

This is addressed in Technical Schedule 1 'Environmental Incident and Emergency Response Plan' and Technical Schedule 2 'Communication Plan in the Event of a Spillage' of the Preliminary Construction Environmental Management Plan contained in Annex 2, Vol I of the EIAR. Specific risks have been identified in the plan, including leaking plan, fire, peat slide, flooding, contaminated water or sediment/silt entering a water course or drain etc. These risks are reasonable and responses comprehensive to enable decision making.

Article 94 (c) A summary of the information in non-technical language.

This information has been submitted as a separate Annex of Vol I (See Annex 8) entitled Non-Technical Summary (NTS). I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that is easily understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report
The sources used to inform the description, and the assessment of the potential environmental impact are set out at the end of each chapter. I consider the sources relied upon are generally appropriate and sufficient.
Article 94 (e) A list of the experts who contributed to the preparation of the report
A list of the various experts who contributed to the report are set out in Table 1 (Vol I) of the EIAR. Table 1 provides a list of the environmental factor, the consultant responsible and the competence of that consultant. An overview of the consultants who were responsible for the preparation of Volume II EIAR are listed in Section 1.5, Vol II The list of consultants and their specialist fields are listed in Section 1.8 of Volume III. I am satisfied that that EIAR has been prepared by competent experts within the various Chapters of the EIAR.

8.5. Consultations

The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices. Submissions have been received from prescribed bodies and third party appellants and are considered in this report, in advance of decision making.

I am satisfied that third parties have had the opportunity to comment on the proposed development in advance of decision making.

8.6. Conclusion on compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended)

Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the applicant is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001(as amended).

9.0 Assessment of Likely Significant Effects

This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Population and human health.
- Biodiversity, with particular attention to the species and habitats protected under the Habitats and Birds Directives (Directive 92/43/EEC and Directive 2009/147/EC respectively).
- Land, soil, water, air and climate.
- Material assets, cultural heritage and the landscape.
- The interaction between these factors.

In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised in the appeal/application.
- Examination, analysis and evaluation of the EIAR.
- The Assessment: Direct and indirect effects.
- Conclusion: Direct and indirect effects.

10.0 Population and Human Health

10.1. Issues Raised

Issues raised under specific topics have been considered under those Chapters.

10.2. Context and Baseline

Chapter 4.1 of the applicants EIAR explains that the baseline environment has not altered materially since the assessment carried out in the permitted Pinewoods Wind

Farm and permitted Pinewoods Wind Farm Substation & Grid Connection in Chapter 3 (Vol II) and Chapter 4 (Vol III).

A further assessment was undertaken for the amendment application, which comprised an appraisal of the effects of the proposed development likely to interact with human beings, an assessment of the local environment to determine if there had been any substantial changes to key criteria (e.g. population numbers and recently constructed dwellings) and an evaluation of whether the proposed development would conflict with any of the previous conclusions on the permitted development.

10.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 10.1;

Table 10.1: Summary of Potential Effects (Population and Human Health)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• The Chapter notes that the likelihood of effects are largely from the construction phase in terms of construction noise, traffic and dust. • Some localised and temporary noise, dust and traffic effects may occur during construction phase. Any such effects are likely to dissipate quickly with distance and are likely to go unnoticed beyond the proposed development site.
Operational Impacts
• No likely significant adverse effects identified for population and human health during operational phase. • The Community Fund as approved in the parent permission is highlighted as creating a socio-economic benefit for the local community.
Decommissioning Impacts
• Decommissioning effects will be as predicted in the parent permission.
Cumulative Impacts
• Proposed development not likely to result in any significant cumulative effects.

10.4. Mitigation

Chapter 4.1 describes how Mitigation Measures have been incorporated into the project design which will minimise impacts of noise/and or shadow flicker. All mitigation measures outlined in Chapter 3 of EIAR, Vol II (Permitted Development) will be implemented in full for all phases. The EIAR notes that no additional effects have been identified as arising from the proposed development regarding public health and safety issues and as a result, no additional mitigation measures are considered necessary, other than the implementation of standard health and safety legislation.

10.5. Residual Effects

The EIAR refers to Table 3.11A of Vol II, which concludes that the residual impact of the construction of the permitted development will give rise to residual effects ranging from 'Slight-to-Moderate Temporary Negative' to 'Moderate Temporary'.

It is also assessed that the construction phase will likely result in local socio-economic benefits through local employment and multipliers from expenditure in the local economy.

10.6. The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 4.1, Vol I of the EIAR, and all of the associated documentation and submissions on file in relation to Population and Human Health.

Construction phase impacts will include noise, traffic and dust. The applicant notes that all potentially hazardous areas will be fenced off and unattended machinery will be stored on-site and immobilised to prevent unauthorised use. The CEMP mitigation measures will ensure that there are no impacts on any vector that will pose a risk to human health. I consider that this can be dealt with by way of condition.

Construction phase benefits will include local employment of up to 53 no. people over a period of 12-18 months. In addition, plant and materials will be sourced locally. I consider that the socio-economic benefits of the construction phase are likely to be positive on the local economy.

The operational phase effects include benefits such as generation of local employment and expenditure in the local economy. The EIAR notes that community benefits including an annual community fund to provide financial support to local community and social groups. The applicant has highlighted that they will contribute €500 per annum to each household within c. 1km of a wind turbine toward the annual electricity cost for each dwelling. I consider these financial supports to the local community to be appropriate and am satisfied that the local community will benefit financially from the proposed development.

Mitigation measures for noise and shadow flicker have been included in the design of the project to reduce the significant likely effects. I have discussed these issues under the relevant sections of this report and will not repeat it here.

10.7. Conclusion: Direct and Indirect (Population and Human Health)

I am satisfied that the proposed development would not have an adverse impact on Population and Human Health, subject to compliance with relevant legislation and guidance, implementation of the EIAR and final CEMP mitigation measures and compliance with recommended conditions.

11.0 Biodiversity

11.1. Issues Raised

The appellants have highlighted their concerns regarding the impact of the proposed development on threatened and endangered species of birds including Curlews, Buzzards, Sparrowhawks and Peregrine Falcons. They have also raised their concerns in relation to the impact of the Wind Farm on bats.

11.1.1. Context and Baseline

An updated Ecological Impact Assessment (EcIA) of the proposed development was undertaken by SLR Consulting (Annex 3, EIAR, Vol I). It is noted that this EcIA is to be read in conjunction with Chapter 4 (EIAR, Vol II). The EcIA provides an assessment of likely effects on birds, bats, mammals, habitats and aquatic species.

The EcIA sets out the Regulatory and Policy Framework, Methodology, Baseline Ecological Conditions, Detailed Project Description, Assessment of Effects and Mitigation Measures. Table 2 of the EcIA provides a summary of the important ecological features on the site.

The assessment concludes that the proposed development is unlikely to result in any significant additional effects on biodiversity when compared to the permitted development.

11.2. **Potential Effects**

Likely significant effects of the development, as identified in the EIAR are summarised in Table 11.1;

Table 11.1: Summary of Potential Effects (Biodiversity)
Do Nothing
• In the absence of the amendments to the permitted wind farm design, the approved Wind Farm will progress to construction and operation. The assessment of these effects and mitigation measures, which are contained in the parent permission will be implemented for the permitted development.
Construction Impacts
• **Habitats** - There will be a change in habitat loss as a result of newly calculated bat mitigation buffers, which will be confined to conifer plantation and hedgerows. The loss is not considered to be significant. Neither habitat is considered likely to support rare and or protected floral species. Significant effects above those previously assessed on habitats not considered likely during construction phase. • **Tree Felling** – 9.3ha of forestry is required to be felled for bat mitigation. Given that the conifer plantation habitat is of limited importance for the species present at the site, it is considered that the loss of habitat will not adversely effect the ecology of the site. Their removal will ensure the appropriate protection for the bat species present at the site. • **Birds** – No additional loss of habitats that area likely to be used by breeding or foraging birds, no increase in likely disturbance or displacement of bird species.
Operational Impacts
• **Habitats** - Significant effects on terrestrial habitats are not considered likely to arise during the operational phase of the proposed development. • **Tree Felling** – The vegetation-free buffer zones described above will be maintained for the operational lifespan of the wind farm to ensure that re-growth doesn't occur. • **Birds -** The likely effect from the increase in the size of the rotor swept area is the potential for collision risk during operation. In the approved parent permission, following assessments carried out in the 2016 EIAR, the operational phase was concluded to have a 'slight negative' impact on birds. The proposed turbines have an increased rotor diameter of +13.6%, with the lower tip height being reduced from 33.5m to 19.5 m which maintaining the upper tip height of 136.5m. No dedicated bird surveys have been conducted since 2016, when a survey of breeding raptors was undertaken. The EIAR notes that there is no evidence to suggest that avian numbers have increased in the intervening period due to there being no change in habitats across the site since 2016. In the 2016 assessment, woodcock and sparrowhawk were assessed as generally flying low to the ground and below rotor swept heights, resulting in a negligible level of collision risk. Kestrels are assessed as having a 95% avoidance rate of collision with turbines and woodcock and sparrowhawk both have a 99% avoidance rate. The 2016 EIA noted the site largely comprises habitats of low ecological value for birds, that few birds use the site, that the site is not located over a regular flyway or migration pathway and that very few flights were recorded during surveys. Hence, the permitted wind farm was concluded to have a 'slight negative' impact on birds. • **Bats** – The previous EIAR on the site concluded that there are low numbers of bats using the site and the site is of low suitability for bats. The re-siting of the 3 no. turbines will place them at most 10m for their permitted locations which will have no significant effect on the distance to treelines/hedgerows.

The increase in size in the turbine rotor swept area and the decreased distance between the wind turbines and treelines/hedgerows, will increase the collision risk for bat species. It is considered that this effect on bat species will not be significant above what is already approved. Given the low numbers of bats present at the site and the fact that habitats have remained unchanged since the previous EIAR, the proposed amendments are unlikely to result in any significant effect on bats above and beyond what is already approved. • **Aquatic Ecology** – The felling of conifer plantation for bat mitigation could increase the amount of suspended solid pollution entering nearby watercourses, which could in turn, negatively impact aquatic receptors (including salmon, white-clawed crayfish, freshwater and Nore pearl mussel, kingfisher and otter). Suspended solid pollution could reduce water quality and smother spawning beds with fine sediments, which may in turn affect the quality of sensitive aquatic receptors downstream of the wind farm. This could occur during periods of heavy rainfall, with exposed soil washed off the construction site and into the streams, which drain the development site. It is expected that any pollution would be restricted to the sub-catchment scale and it would be a one-off event. Negative impacts are predicted to be significant without mitigation and the effects predicted to last several years.
Decommissioning Impacts
• The proposed development is not assessed as likely to have any effect on the previously assessed decommissioning phase impacts.
Cumulative Impacts
• Methodology addressed in Section 2.4.4 of the EcIA (Annex 2) • Cumulative Impacts are addressed in Section 5.2.5 of the Applicants EcIA. • The effects of the proposed design amendments to the permitted Pinewoods Wind Farm are not likely to be significant and will be localised to the site and the immediate area. • It was determined that there is no potential for cumulative effects due to the two other projects which have been identified with potential for cumulative effects also comprising mitigation measures to avoid or reduce the risks in relation to suspended solids entering the local watercourses.

11.3. **Mitigation**

Within the scheme design and operation, good practice environmental and pollution and control measures will be employed. Landscaping measures are proposed to minimise loss of biodiversity on-site. These measures will form part of the Habitat and Species Management Plan (HSMP) which will be prepared prior to commencement, for example, hedgerows lost during construction will be replaced elsewhere on the site. Felling will be undertaken subject to a felling licence, following a grant of permission. Replacement trees will be planted in accordance with the licence on an alternative site.

Specific mitigation measures are not required for bird protection as no significant effects are predicted to occur.

All mitigation measures proposed in the permitted development in relation to the protection of bats to be implemented in full. In addition, the applicant points out that due to an update in guidance on bats since the permitted development was approved, the requirement for a 62.5m vegetative setback area for bats based on *Technical Information Note TIM051, 2014*, has since been superseded by *NatureScots Bats and onshore wind turbines – survey, assessment and mitigation document, 2021.* The implementation of this buffer zone required removal of c. 850m of existing hedgerow and felling of c. 7.55ha of existing forestry. Based on this latest guidance, the amount of felling was reassessed by the applicant and using the NatureScot bat feature buffer calculation within the guidance. The conclusion is that all forestry must be felled within 95.2m of a wind turbine. All hedgerows located within 77.5m of a wind turbine will also be removed. This amounts to an additional 9.3ha to be removed. Table 5 of the EcIA indicates the locations of trees to be felled.

In addition, bat and bird monitoring is proposed (Section 5.3 of EcIA) as per Condition No. 13 of the parent permission. Depending on the results of the monitoring, if there is a notable adverse effect on bats, the following operational mitigation measures for bats will be implemented;

- Feathering of Blades, which is pitching the blades out of the wind to reduce rotation speeds below 2 rpm while idling. This is proposed for all turbines;
- Curtailment which involves raising the cut-in speed and reducing the blade rotation below the cut-in speed. This could happen during the bat activity season (April – October) or where temperatures are optimal for bat activity.

All mitigation measures proposed in the parent permission EIAR regarding aquatic receptors will be implemented in full. The measures which are detailed in the Preliminary CEMP and Surface Water Management Plan (SWMP) will ensure that no pollutants are allowed to enter downstream watercourses and that there is no deterioration whatsoever in downstream water quality such that significant adverse impacts could arise.

There will be no change to the mitigation and monitoring for the permitted development as a result of the proposed design amendments. Full details of the Mitigation and Monitoring to be undertaken (including an updated SWMP) are described in the Preliminary CEMP (EIAR Vol I, Annex 2).

11.4. Residual Effects

No likely significant residual impacts on habitats as a result of the proposed design amendments are anticipated. Subject to the implementation of all relevant mitigation measures, no significant residual effect on birds, bats or aquatic ecology are expected.

11.5. The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 4.2, Vol I of the EIAR and Annex 3, Vol I (EcIA), and all of the associated documentation and submissions on file in relation to Biodiversity.

I accept that there has been no change to habitat type across the site, which would increase the number of birds on the site since 2016 bird surveys were carried out and that the site is of low ecological value for birds. The increased size of the turbine rotors will increase the risk of likelihood for bird collision. I consider that this would only be significant if there was an increase in bird numbers across and around the site. Due to reasons outlined in the EcIA in relation to the site conditions, I consider that this is very unlikely to have occurred. Section 5.3.1. of the Applicants EIAR notes that monitoring of the effects on wild birds is required in Condition 13 of the parent permission and the section explains how this will be carried out.

I acknowledge the concerns of the Appellants in relation to the protection of birds and bats. The applicant proposes to undertake a further year of surveys for birds prior to the wind farm construction to update the baseline environment for future monitoring. Vantage Point Surveys, Fatality Monitoring (if required) and liaison with the competent authority and the NPWS is proposed. I consider the mitigation measures and monitoring proposed to be reasonable and will ensure the protection of local bird species.

In relation to the updated bat mitigation proposals contained within the EcIA, I am satisfied that the felling of 9.3ha of conifer plantation habitat which comprises an updated vegetative setback of 95.2m from the turbines and the removal of hedgerows located within 77.5m of a wind turbine will ensure the appropriate protection of bat species on the site and will not impact the ecology or biodiversity on the site due to the low ecological value of conifer plantation. I consider the extent of buffer zone proposed around the turbines will ensure there is no significant impact on bats and

that in the event in the operational stage during monitoring that adverse effects are occurring in relation to bats, the suite of measures outlined in the mitigation for the operational stage will be employed. Post construction monitoring for bats is described in Section 5.3.2 of the Applicants EcIA and has been conditioned on the parent permission. I consider that this is appropriate and can be dealt with by way of condition.

As outlined in Table 11.1, no significant likely effects on habitats/species have been identified as part of the EIAR assessment during the construction, operational and decommissioning phases. All other effects, following implementation of mitigation are predicted to be not significant or absent.

11.6. Conclusion: Direct and Indirect (Biodiversity)

Having regard to the scale of the proposed design amendments to the permitted Pinewoods Wind Farm, I am satisfied that the proposed development would not have an adverse impact on biodiversity (including habitat and species), subject to compliance with relevant legislation and guidance, implementation of the EIAR and Final CEMP Mitigation and Monitoring Measures and compliance with recommended conditions.

12.0 Land and Soil

12.1. Issues Raised

The Appellant has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Land & Soil.

12.1.1. Context & Baseline

Chapter 4.3 of the applicants EIAR explains that the baseline environment has not altered materially since the assessment carried out in the permitted Pinewoods Wind Farm in Chapter 5 (Vol II). The EIAR notes that the interaction with Land and Soil is extremely limited, relating solely from the minor re-siting of wind farm infrastructure, increased extent of forestry felling and minor increases in excavations arising from the proposed turbine foundations.

12.2. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 12.1;

Table 12.1: Summary of Potential Effects (Land and Soil)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• While the amendments provide for minor relocation of wind farm infrastructure and an increased turbine foundation diameter, an increase in the overall footprint of the permitted development is not proposed. Hence, the likelihood of significant adverse effects is assessed to be negligible. • The increased extent of felling proposed will increase volume of groundworks to be undertaken at the site. This increase level of works results in a greater likelihood of effects on land and soil through erosion effects arising from vehicle movements and through surface water and wind action. However, due to the short-term duration of the construction phase and the standard felling practices to be implemented during such works are assessed to be negative, direct, slight and of a high probability with a short-term duration. • Due to the slight increase level of construction activities to be undertaken, there is a greater likelihood of soil contamination through accidental spillages or leakages to occur. This likelihood of a significant effect is assessed as negligible.
Operational Impacts
• No operation phase effects above those already permitted expected to occur. • Following the felling, the ground will be allowed to vegetate naturally thus preventing the occurrence of surface water or wind generated erosion.
Decommissioning Impacts
• The proposed development is not assessed as likely to have any effect on the previously assessed decommissioning phase impacts.
Cumulative Impacts
• No cumulative impacts are expected to occur.

12.3. Mitigation

All Mitigation Measures proposed as part to the permitted development (EIAR Vol II) will be implemented in full in respect of the proposed development. Due to the absence of additional likely significant adverse effects from the proposed amendments, it is assessed that no mitigation measures additional to Vol II are required. The EIAR notes that the mitigation measures approved in the parent permission will be adapted as necessary to account for the proposed revised turbine locations and additional felling requirements and this will be co-ordinated through the CEMP (as described in Annex 2, Vol I)

12.4. **Residual Effects**

No residual effects identified following the implementation of mitigation measures outlined in EIAR Vol II.

12.5. **The Assessment: Direct and Indirect Effects**

I have examined, analysed and evaluated Chapter 4.3 of the EIAR, and all of the associated documentation on file. The likely effects are associated with the construction stage, specifically tree felling and the increased volume of groundworks involved. I consider the mitigation measures proposed in the EIAR are sufficient to mitigate any impacts relating to the construction phase including erosion effects arising from vehicle movements and through surface water and wind action. In addition, due to the slight increase in construction activity, potential impacts to soil contamination could occur from accidental spillages and leakages. The final CEMP will include mitigation measures, which will protect soils and groundwater from contamination. With the implementation of Mitigation Measures outlined in the EIAR, I consider that the proposed development is not predicted to give rise to significant adverse impacts to Land and Soils at any phase of the development.

12.6. **Conclusion: Direct and Indirect (Land and Soil)**

I consider the applicants assessment has identified the relevant issues in relation to Land and Soils and that no significant adverse effects are likely to arise.

13.0 **Water**

13.1. **Issues Raised**

The Appellant has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Water.

13.2. **Context & Baseline**

The EIAR notes that a detailed assessment of the likelihood of significant effects on water was previously undertaken for the permitted Pinewoods Wind Farm and

Pinewoods Wind Farm Substation & Grid Connection. This concluded that following mitigation, no significant likely impacts are likely to occur. The baseline environment remains as previously assessed in Chapter 6, Vol II EIAR.

A number of lower order watercourses are present within the site and in its environs, which is located downstream and discharges into the River Barrow and River Nore SAC.

Due to the increased spatial extent of forestry felling, a further assessment was undertaken for the current permission. The conclusion of the EIAR is that the proposed development is unlikely to give rise to any significant additional effects when compared to the permitted development.

13.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 13.1;

Table 13.1: Summary of Potential Effects (Water)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• Assessed that the re-siting of the 3 no. turbines will not result in a significantly increased likelihood of effects on watercourses or on water quality. • The likely effects of sedimentation/siltation of water features arising from earthworks, possible accidental release of hydrocarbons, ground/surface water contamination, the release of cement-based products, morphological changes to surface water features and drainage patterns, effects on groundwater supplies and effects on downstream SAC will remain as assessed at Chapter 6, Volume II, EIAR for the permitted development. • The most notable interaction with the water environment will arise from increase felling operations, however it is assessed that no additional/new likely effects from the proposed amendments. The permitted development provides for the felling of c. 7.5ha while and additional 9.3ha will be felled to accommodate the construction and operation of the proposed development. • Without mitigation, likely effects of felling of forestry include surface water erosion due to vehicular movements, increasing the likelihood of silt or sediment becoming entrained in surface water runoff and adversely affecting downstream surface water quality, increased likelihood of sediment becoming entrained in areas where timber stacking occurs and nutrient release from felling operations.
Operational Impacts
• No likelihood of additional operation phase effects on water compared to those previously assessed. • Surface water management measures, including settlement ponds and sediment traps will remain in situ through the 25-year operational phase of the proposed and permitted development to ensure long-term protection of downstream watercourses and water quality.

Decommissioning Impacts
• Decommissioning effects will be as predicted in the parent permission.
Cumulative Impacts
• Proposed development not likely to result in any significant cumulative effects.

13.4. Mitigation

All mitigation measures proposed as part of the permitted Pinewoods Wind Farm, which incorporated a detailed surface water management system, will be implemented in full.

Due to the increased area of forestry felling, it will be necessary to revise the siting and layout of the surface water management system to ensure that all construction activities are located within the extent of the surface water management infrastructure to ensure that no pollutants can enter on-site or downstream watercourses.

13.5. Residual Effects

No residual effects identified following the implementation of mitigation measures outlined in EIAR Volume II and Section 4.4.3 of Volume I.

13.6. The Assessment: Direct and Indirect Effects

The hydrological mitigation measures outlined in the parent permission (Vol II) will ensure that all surface water runoff and water generated from construction activities would be directed through the proposed surface water management system to ensure than no deleterious material is discharged into the local water courses. The surface water management system includes settlement ponds, which will ensure the protection of the protected species contained within the SAC downstream of the site, including the Freshwater Pearl Mussel and the Nore Pearl Mussel. I am satisfied that the mitigation measures proposed will protect downstream water quality from siltation, sedimentation and release of hydrocarbons or cementitious waters.

The EIAR notes that all previously committed-to water-related mitigation measures are required to be implemented in full. In addition, for the amendment application the surface water management system has been extended to encompass the revisions. The revised Preliminary Surface Water Management Plan (SWMP) is contained in Annex 2, Vol I EIAR. I note that the parent permission contains Condition No. 10 which

requires the SWMP to be agreed in writing with the Planning Authority prior to commencement of development.

I am satisfied that the surface water protection measures included in Annex 2 SWMP and the other accompanying planning documentation including the permitted development in Chapter 6, Volume II will ensure the protection of water quality both within the site and downstream.

13.7. Conclusion: Direct and Indirect (Water)

I have examined, analysed and evaluated Chapter 4.4 of the EIAR, and all of the associated documentation on file in relation to Water. I am satisfied that no significant adverse effects are likely to arise following the implementation of mitigation measures outlined in the planning documentation and compliance with relevant planning conditions.

14.0 Air Quality and Climate

14.1. Issues Raised

The Appellant has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Air Quality and Climate.

14.2. Context & Baseline

The baseline analysis of local air quality and climatic conditions in the vicinity of the proposed development site is provided in the parent permission EIAR, Chapter 7, Vol II. In the original assessment, Air Quality was assessed to be of good quality as measured at the Emo monitoring station, County Laois and has remained unchanged.

14.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 14.1;

Table 14.1: Summary of Potential Effects (Air Quality and Climate)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts

• It is assessed that there is no likelihood of significant additional air quality effects when compared to the permitted development. • Construction phase effects resulting from the proposed development will be confined to emissions from plant and machinery and the generation of dust. • The increased level of tree and vegetation felling to be removed is the only additional works to be undertaken during the construction phase likely to result in additional exhaust emissions. It is predicted to take 1-2 days to complete the vegetation felling around each turbine location. The works will be short-term and temporary in nature. They are assessed as not likely to result in any likely significant effects.
Operational Impacts
• The proposed development will provide an increase of +12.1MW electrical capacity to 47.3MW, which will increase the contribution of renewable electricity to meet national targets regarding the reduction of greenhouse gas emission. This will likely result in a positive effect on air quality and climate due to the reduced requirement for electricity to be generated from non-renewable sources.
Decommissioning Impacts
• The predicted decommissioning will be identical to those as assessed in the EIAR for the permitted development and no likely significant additional effects are assessed as likely to occur.
Cumulative Impacts
• The assessment undertaken at Chapter 7, Vol II EIAR for the parent permission concludes that notable air quality effects are unlikely to be experienced beyond the proposed development site, if at all. • Proposed development not likely to result in any significant cumulative effects.

14.4. Mitigation

All mitigation measures outlined in Chapter 7, Vol II, EIAR for the permitted development are required to be implemented in full during all phases of development. No additional mitigation measures are assessed as being required for the amendment application.

14.5. Residual Effects

The increased generation of renewable energy arising from the proposed development will result in a long-term improvement in local and national air quality standards and a reduced dependency on electricity generated from fossil fuel sources. The increase level of generation will also further assist in meeting Irelands greenhouse gas emission reduction targets.

No residual effects identified following the implementation of mitigation measures outlined in EIAR Chapter 7, Volume II.

14.6. The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 4.5 of the EIAR and Chapter 7, Vol II EIAR and all of the associated documentation and submissions on file in relation to Air Quality and Climate.

During construction stage there is no substantial increase or intensification of construction activities likely to result in increased exhaust emissions and corresponding reduction in air quality compared to the permitted development as outlined in Table 14.1. The development will provide an increase of 12.1MW of renewable electricity generation. I consider the operational stage will provide a positive contribution to assisting Ireland meet its greenhouse gas emission reduction targets in line with National and Local policy.

14.7. Conclusion: Direct and Indirect (Air Quality and Climate)

I have considered the Applicants EIAR and am satisfied that all issues have been appropriately addressed and that no significant adverse effects are likely to occur in relation to Air Quality and Climate.

15.0 Landscape

15.1. Issues Raised

The Appellant, Mr. Sweetman has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Landscape. The Appellants have also raised concerns regarding the visual impact of the proposed development on the rural landscape.

15.2. Context & Baseline

A Landscape and Visual Impact Assessment (LVIA) accompanies the EIAR in Annex 4, Vol I, which assesses the likelihood of significant effects on the landscape and sensitive receptors from the construction and operational stages. The assessment is based on the Vestas V117-4.3MW wind turbine, with a hub height of 78m, a blade length of 58.8m (rotor diameter 117m) and an overall tip height of 136.5m.

The assessment provides a comparison of the baseline which is the permitted development and the Pinewoods Wind Farm Substation & Grid Connection. The EIAR concludes that due to the minor amendments proposed to the permitted wind farm, there will be no likely significant impacts arising from the revised siting of turbine foundations, crane hardstandings, access tracks and underground cabling, and the additional felling requirements. A set of comparative photomontages of the permitted and proposed wind turbines have been prepared to inform the LVIA in Annex 4, Vol I. These images have been taken for the same location as the permitted development.

15.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 15.1;

Table 15.1: Summary of Potential Effects (Landscape)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• The LVIA finds that there will be no material change to the landscape impact from the proposed development when compared to the permitted development as there will be no significant physical alterations to the landscape or vegetation pattern within the proposed development site. • In terms of visual impact significance, the assessment from Viewshed Reference Points (VRPs) confirm that the proposed development will not result in any alteration of impact significance at any VRP when compared to the permitted development.
Operational Impacts
• Same as Construction Impacts above.
Decommissioning Impacts
• None noted.
Cumulative Impacts
• The proposed development will not alter the cumulative assessment previously undertaken which determined that there would be no likelihood of significant cumulative effects.

15.4. Mitigation

No mitigation measures proposed in Chapter 4.6, Vol I.

15.5. Residual Effects

No residual impacts identified.

15.6. The Assessment: Direct and Indirect Effects

I have visited the site and examined, analysed and evaluated Chapter 4.6, Vol I of the EIAR, and all of the associated documentation including the LVIA in Annex 4 of Vol I and the Photomontages submitted with the application in relation to Landscape.

I am satisfied that the proposed amendments to the permitted wind farm including the change to the Vestas V117-4.3MW wind turbine and the re-siting of 3 no. of the wind turbines will not result any significant effects on the landscape, over that which has already been approved.

15.7. Conclusion: Direct and Indirect (Landscape)

Having reviewed the EIAR and Planning Documentation and am satisfied that the proposed amendments to the approved wind farm would not have any significant adverse impacts on the landscape or visual amenity.

16.0 Cultural Heritage

16.1. Issues Raised

The Appellant has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Cultural Heritage.

16.2. Context & Baseline

The site and its environs were previously assessed under the parent permission and the permitted Pinewoods Wind Farm Substation and Grid Connection in Chapter 9, Vol II EIAR. This included an archaeological study area of 1km around the proposed development site and a 5km area for the purposes of assessing the presence of Protected Structures and any other statutorily protected archaeological, architectural or cultural heritage features recorded in the Kilkenny or Laois County Development Plans. The landtake for the proposed development remains the same and hence the assessment undertaken for the parent permission remains unchanged.

The assessment concludes that the proposed development is not likely to result in a significant effect on any existing cultural heritage features.

16.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 16.1;

Table 16.1: Summary of Potential Effects (Cultural Heritage)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• None noted
Operational Impacts
• Indirect effects on heritage features are considered to be solely related to any visual effects exerted by the proposed development. As the proposed development does not comprise an increase in the overall tip height of any wind turbine, it is assessed that there is no likelihood that the proposed wind turbines will have an increased visibility in the landscape, including from sites/features of cultural significance. It is considered due to the modest increase in rotor size, it would be largely un-noticeable from these features and would not be likely to significantly adversely affect their setting.
Decommissioning Impacts
• None noted
Cumulative Impacts
• No cumulative impacts are expected.

16.4. Mitigation

The Proposed Development will not have a significant effect upon the setting of designated heritage assets during construction or operation and no specific mitigation has been proposed.

Condition No. 9 of the permitted development requires archaeological monitoring to be undertaken. This monitoring will be extended to ensure that the land-take associated with the proposed development is similarly monitored.

16.5. Residual Effects

No residual effects are expected.

16.6. The Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 4.7 of the EIAR, and all of the associated documentation on file in relation to Cultural Heritage.

I am satisfied based on the minor amendments proposed to the wind farm that no likely significant effects are likely in relation to any cultural heritage feature when compared to the permitted development.

I note that the parent permission contains a Condition in relation to archaeological monitoring. I consider an extension to the area to be monitored in relation to archaeology during construction can be dealt with by way of condition.

16.7. Conclusion: Direct and Indirect (Cultural Heritage)

Based on the results of the EIAR in relation to Cultural Heritage, I am satisfied that no significant adverse effects are likely to arise in relation to Cultural Heritage and Archaeology.

17.0 Noise & Vibration

17.1. Issues Raised

The Appellant, Mr. Sweetman has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Noise and Vibration.

The Appellant, Mr. Palin has raised the issue of noise pollution and infrasound as a reason for reconsideration of the proposed development. Other issues raised by the appellants include the impact of noise on residential amenity and health.

17.2. Context & Baseline

The likely effects of noise and vibration were previously assessed in the parent permission EIAR, Chapter 10, Vol II. The EIAR concluded that there were no likely significant impacts during any phase of the development. Due to increased construction activities and an alternative turbine type for the amendment application, a further assessment was undertaken, which comprises a revised Noise Impact Assessment enclosed in Annex 5, Vol I EIAR. This assesses the operational phase noise associated with the revised turbine type (Vestas V117-4.3MW turbine) and assesses if the proposed turbines comply with the permitted noise limits imposed by condition by An Bord Pleanála in the permitted development. Due to the larger rotor

diameters in the Vestas turbine, 37 no. dwellings were assessed rather than the 33. no. dwellings assessed in the permitted development. The EIAR concludes that the proposed development will not result in any likely significant additional noise effect at noise sensitive receptors when compared to the permitted development

17.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 17.1;

Table 17.1: Summary of Potential Effects (Noise and Vibration)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
• Not assessed as likely to result in any noise effects which have not previously been fully assessed as part of the permitted parent permission. • Due to the separation distances to the nearest residential dwellings and given that there will be no requirement for additional vibration generating activities when compared to the permitted development, additional or increased construction phase vibration effects are assessed as highly unlikely.
Operational Impacts
• In the absence of mitigation measures, 3 no. dwellings of the 37 no. dwellings assessed are predicted to exceed the noise limits prescribed by An Bord Pleanála in the permitted development. Following implementation of technological mitigation measures to curtail the operation of certain turbines at specific wind speeds, it is assessed that no noise sensitive receptor (dwelling) will experience noise levels in excess of maximum limits. The EIAR notes that these measures will have no appreciable effect on the electrical output of the proposed development.
Decommissioning Impacts
• None noted.
Cumulative Impacts
• In the absence of other wind energy developments in the environs of the proposed development site, there is no likelihood of significant cumulative effects.

17.4. Mitigation

The operation of certain turbines at certain wind speeds will be curtailed or limited to maintain predicted noise limits below acceptable limits. These mitigation measures are regularly applied to wind energy developments to protect the amenity of local dwellings and ensure that significant effects do not occur.

17.5. Residual Effects

With the implementation of standard noise control measures, noise levels arising from the operation of the proposed development will be at or below the limits imposed by An Bord Pleanála in respect of the permitted development.

17.6. The Assessment: Direct and Indirect Effects

Due to the minor amendments proposed, the construction phase is not likely to result in any noise impact above which has already been assessed and considered acceptable. Due to the separation distances between the development site and the nearest sensitive receptors, significant vibration effects are not predicted likely during construction and operational phases.

In the operational stage, without mitigation the proposed amendments could have a noise impact on 3 no. dwellings. The applicant is proposing the implementation of technological mitigation measures to curtail the operation of certain turbines at specific wind speeds. This will curtail noise effects to limits which have previously been applied by An Bord Pleanála.

The Appellant has stated his concern in relation to Noise Pollution and Infrasound. The Draft Wind Energy Development Guidelines 2019[3] (The Guidelines 2019) states that;

> *'Infrasound occurs naturally in the environment (e.g. wind sound effects) and is generated by many human activities and the operation of many types of machines (e.g. motor cars, washing machines etc.). Infrasound generally occurs at frequencies below the normal range of human hearing, namely less than about 20Hz. It has been demonstrated that modern wind turbines do not emit any perceptible level of infrasound.'* (Pg. 206)

The Guidelines 2019 has noted the following in relation to Aerodynamic noise (Section 5.7.6.3);

> *'Some early wind turbine designs had turbine blades which were downwind of the tower. As the blades passed on the downwind side of the tower, significant*

[3] gov - Draft Revised Wind Energy Development Guidelines December 2019 (www.gov.ie)

turbulence caused loud low frequency and infrasonic noise on a consistent basis. Modern wind turbines have the blades upwind of the tower. This has effectively eliminated continuous infrasound elements form wind turbine noise during normal operations'.

The Guidelines 2019 further notes in relation to Special Audible Characteristics (Section 5.7.6.5) that;

> *'There is no evidence that wind turbines generate perceptible infrasound. There is normally no excessive tonal or low frequency element in the noise from a wind turbine. The characteristic sound close to a wind turbine could be described by the listener as a regular 'swish' which decreases rapidly with distance. However, under some running conditions wind turbines can generate special audible characteristics in the form of amplitude modulation, tonal and low frequency noise at distances of hundreds of metres from the turbine'.*

The Guidelines 2019 further state in Technical Appendix 1, Section 1.1 Special Audible Characteristics of Wind Energy Development Noise, in relation to infrasound;

> *'Many noise complaints relating to wind turbine noise refer to special audible characteristics such as tonal, infrasonic, low frequency noise or amplitude modulation. There is no evidence that wind turbines generate perceptible infrasound. In order to adequately control wind turbine noise, it is necessary to set noise level limits and to control the other special audible characteristics of the noise.'*

I consider that no significant effect is likely in relation to infrasound or health and that the mitigation proposed is appropriate and will avoid significant likely effects in relation to noise and will restrict noise to the noise limits which were set out by An Bord Pleanála for the permitted development.

17.7. Conclusion: Direct and Indirect (Noise and Vibration)

Having examined the EIAR noise modelling, which has been carried out in line with relevant guidance, I am satisfied that the models and resultant conclusions are robust.

Sound emissions from the Proposed Development would, without mitigation, exceed the nominated criteria. I am satisfied that adverse noise effects during all phases of

the development will not be significant due to the mitigation proposed and the separation distances to the nearest residential properties. I am satisfied that vibration effects will not be significant for any phase of the development due to the separation distances with sensitive receptors.

18.0 Shadow Flicker

18.1. Issues Raised

The Appellant, Mr Sweetman has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Shadow Flicker.

The Appellant, Mr. Palin has raised the issue of visual flicker and the impact of light flicker and onset of epilepsy seizures as a reason for reconsideration of the proposed development. Other issues raised in relation to Shadow Flicker include concern that the mitigation measures proposed will not be sufficient and impact of shadow flicker on solar panels on residential dwellings in the locality.

18.2. Context & Baseline

A Shadow Flicker assessment was undertaken for the permitted Pinewoods Wind Farm which concluded that following mitigation significant effects were unlikely during the operational phase (Chapter 11, Vol II EIAR).

A revised Shadow Flicker Impact Assessment was undertaken for the amendment application, to reassess the proposed re-location of 3 no. turbines and to assess the increased diameter of the rotors of the Vestas V117-4.3MW wind turbines. This provides a comparative analysis between the permitted and the proposed wind turbines using WindPro software. The results of the assessment are provided in Annex 6, Vol I EIAR.

The applicant notes that the permitted development included 33 no. dwellings, but due to the larger rotor of the Vestas V117-4.3MW turbine, 37 no. dwellings are now located within the 10 no. rotor diameter criterion and thus fall for assessment.

18.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 18.1;

Table 18.1: Summary of Potential Effects (Shadow Flicker)
Do Nothing
• Not examined in EIAR.
Construction Impacts
• No impacts during construction phase.
Operational Impacts
• Shadow flicker from wind turbines can occur when a particular combination of weather conditions coincides in specific locations at particular times of the day and year. It usually occurs when the sun is low in the sky and shines on a building or location from behind a turning rotor. This can cause the shadow of the turbine blades to flicker on and off as the turbines rotate. • No dwelling will experience shadow flicker in excess of 30-hours per year. The values of expected shadow flicker at each dwelling within 1,170m of a proposed wind turbine are below the maximum allowable limit outlined in the WEDG 2006 and as permitted by An Bord Pleanála in Condition No. 20 (a) of the Pinewoods Wind Farm planning permission. It is assessed that the proposed development will not result in any likely significant effects additional to those previously assessed and accepted, by the Board. • With regard to the 'worst case' values, it is noted that 28 no. of the 37 no. dwellings assessed are predicted to exceed the 30-minutes per day criterion. The applicant notes that the expected values are intrinsically conservative in that each receptor is modelled in 'greenhouse mode' i.e. constructed entirely in glass (windows on all elevations) and located in a 'lunar landscape' without allowing for the obscuring effect of vegetation between the location of the receptor and the position of the sun in the sky. • Table 6 provides the predicted 'worst case' and 'expected' shadow flicker levels at each dwelling within 10 no. rotor diameters of the wind turbines and assess the impact in relation to the 2006 Guidelines and the An Bord Pleanála Condition No. 20.
Decommissioning Impacts
• No impacts during decommissioning phase.
Cumulative Impacts
• No cumulative shadow flicker impacts predicted as no other proposed, permitted or operational wind turbines sufficiently proximate to the proposed development.

18.4. Mitigation

Mitigation Measures proposed in the EIAR include technical solutions available and widely implemented on wind farm developments to ensure that shadow flicker does not exceed permissible limits. The applicant notes that the mitigation measures proposed effectively limit the operation of turbines during the infrequent periods when shadow flicker is predicted to occur. If a particular turbine is creating shadow flicker effects at a particular dwelling, then the turbine may be temporarily shut down. This is

normally done remotely using dedicated software at predetermined times when shadow flicker is predicted to occur if the sun is shining.

18.5. Residual Effects

With the implementation of mitigation measures outlined above, the proposed development will be below the limits set out in the WEDG, 2006 and the limits set out by An Bord Pleanála in respect of the permitted development.

18.6. The Assessment: Direct and Indirect Effects

The Appellant has noted their concern regarding Visual Flicker/Light Flicker/Shadow Flicker. The 2019 Guidelines[4] have defined this as occurring where the rotating blades of a wind turbine cast a moving shadow, which, if it passes over a window in a nearby house or other property results in a rapid change or flicker in the incoming sunlight. This will occur only for a short period during a given day and only under specific concurrent circumstances. These conditions are described in Section 5.8 of the Guidelines 2019.

I have examined, analysed and evaluated Chapter 4.9 of the EIAR and Annex 6 Vol I (Shadow Flicker Prediction Modelling).

Shadow Flicker will not occur during construction or decommissioning phases when the turbines are not in operation.

The assessment in Table 6 shows the Predicted Operational Shadow Flicker Levels, analysing the 'Worst Case' and the 'Expected' Shadow Flicker for 37 no. dwellings. The assessment notes that the 'expected' values of shadow flicker represent a more realistic predication of occurrence of shadow flicker. Table 6 indicates that no dwelling will experience Shadow Flicker in excess of 30-hours per years and that the expected shadow flicker at each dwelling is below the limits outlined in the Guidelines, 2006 and the limit set by An Bord Pleanála in Condition No. 20(a) in the parent permission.

For the 'worse case' scenario, Table 6 indicates that 28 no. of the 37 no. dwellings assessed are predicted to exceed the 30-minutes per day criterion. The report notes

[4] The Draft Wind Energy Development Guidelines 2019[4] (The Guidelines 2019)

that this calculation is a significant over-estimation of the likely shadow flicker and not likely to be representative of the actual conditions.

In order to mitigate this 'worse case' daily shadow flicker, the applicant has proposed mitigation measures comprising technical solutions, which are explained in Section 18.4 above and won't be repeated here. I am satisfied that the mitigation proposed, which are the same as those approved in the permitted development will ensure the protection of residential amenity of nearby dwellings from shadow flicker. I consider that with the implementation of the mitigation measures, no dwelling will exceed the 30-hours per year or 30-minutes per day criteria as per the 2006 Guidelines and will comply with Condition No. 20(a) of the planning permission for the permitted development.

Further, I have also reviewed the 2019 Draft Guidelines, which states the following in relation to Shadow Flicker at dwellings within 500m not exceeding 30 hours per year or 30 minutes per day;

> *'Careful site selection, design and planning and good use of relevant software, can help avoid the possibility of shadow flicker in the first instance. It is recommended that shadow flicker at neighbouring offices and dwellings within 500m should not exceed 30 hours per year or 30 minutes per day. At greater distances than 10 rotor diameters from a turbine, the potential for shadow flicker is very low. Where shadow flicker could be a problem, developers should provide calculations to quantify the effect and where appropriate take measures to prevent or ameliorate the potential effect, such as by turning off a particular turbine at certain times.'*

Section 7.16 of the 2019 guidelines states that;

> *'A condition should be attached to all planning permissions for wind energy development to ensure that there will be no shadow flicker at any existing nearby dwelling or other relevant existing affected sensitive property and that the necessary measures outlined in the shadow flicker assessment submitted with the application, such as turbine shut down during the associated time periods, should be taken by the wind energy developer or operator to eliminate the shadow flicker.'*

The Appellant has raised their concern regarding the impact of light/shadow flicker and the onset of epilepsy seizures, known as photosensitive epilepsy. Other health issues are also noted. I also acknowledge the concerns in relation to shadow flicker impact on existing solar panels on residential dwellings in the locality and concern that mitigation measures proposed won't protect local residents from shadow flicker.

I consider that the mitigation proposed by the Applicant which includes monitoring of Shadow Flicker and if necessary, temporarily shutting down the turbine to ensure that no shadow flicker will occur, to be appropriate. This form of mitigation is widely used to protect the residential amenity of dwellings located close to wind turbines. During the operational phase, I consider that significant effects are unlikely to occur following implementation of the mitigation measures proposed.

18.7. Conclusion: Direct and Indirect (Shadow Flicker)

Based on the results of the Applicants EIAR in relation to Shadow Flicker, I am satisfied that no significant adverse effects are likely to arise and that the mitigation proposed will protect the residential amenity of nearby residential properties from Shadow Flicker. I am satisfied that the Condition attached to the parent permission in relation to Shadow Flicker is appropriate and also complies with Section 7.16 of the Draft Wind Guidelines 2019.

19.0 Material Assets including Transport and Access, Telecommunications and Aviation

19.1. Issues Raised

The Appellant, Mr. Sweetman has concerns regarding the adequacy of the Planning Authorities EIA of the proposed development in relation to Material Assets.

The Appellants have also raised concern in relation to the impact on local roads due to the construction phase of the development and impact in relation to telecommunications specifically TV/Mobile and Broadband reception.

19.2. Context & Baseline

19.2.1. Transport and Access

The EIAR for the permitted development in Chapter 13, Vol II and the Further Information submitted assessed the permitted development and concludes that subject to the implementation of mitigation measures, significant impacts are not likely.

Annex 7 Vol I, includes a copy of the Traffic Impact Assessment, accompanying drawings and Road Safety Audit.

19.2.2. Telecommunications

The proposed development site and its environs were previously assessed for likely effects on telecommunications as part of the EIAR for the permitted development in Chapter 12, Vol II and the Pinewoods Wind Farm Substation & Grid Connection EIAR (Chapter 13, Vol III). Given the nature of the proposed amendments, the EIAR notes that significant effects on telecommunications links are unlikely to occur.

19.2.3. Aviation

The proposed development does not include an increase in the height of any structures, including wind turbines. Therefore, it is assessed that there is no likelihood of additional effects on, or interactions with, civil or military aviation including the Midlands Heliport located c. 1.5km west of the proposed wind turbines over and above those assessed and permitted in the parent permission.

19.3. Potential Effects

Likely significant effects of the development, as identified in the EIAR are summarised in Table 19.1;

Table 19.1: Summary of Potential Effects (Material Assets including Transport and Access, Telecommunications and Aviation)
Do Nothing
• Not examined in EIAR, Vol I.
Construction Impacts
Transport and Access • There will be no additional direct effects on transport, access or the public road network as a consequence of the proposed development.

- Indirect effects on transport and access, such as temporary delays associated with the movements of construction related traffic and an increase in traffic movements will be similar to those assess at Chapter 13, Vol II for the permitted development.
- While the proposed development will result in some additional traffic movements associated with the additional felling operations and increase concrete requirements due to the proposed larger turbine foundations, the additional volumes are not anticipated to be significant.
- Due to the increased level of forestry to be felled (9.3ha), it is predicted that 112 no. additional heavy goods vehicle (HGV) trips will likely be generated, while the additional concrete requirements (turbine foundations) are estimated to increase traffic volumes by c. 110 no.
- The permitted development predicts 8,111 no trips during construction. The proposed development predicts an additional 222 no. trips. This is not considered significant.
- Concludes that there will be no likely appreciable additional significant effect on transport and access during the construction phase.

Turbine Component Haul Route

- Chapter 13, Vol II indicates that Dublin Port was a candidate port of entry as were Port of Waterford, Limerick/Foynes/Shannon Port and Port of Galway. It is noted that a port of entry for turbine components has not yet been finally selected.
- The EIAR states that each of these ports are well served by the motorway and national road networks and it is assessed that no notable constraints are present and that no likely significant effects have been identified.
- Whatever port is selected, the turbine components will be transported along the motorway and national road network to the junction of the N78 and R430 (the N78 likely having been accessed from the M9 motorway). They will then be transported westwards along the R430 to the junction with the L7800. Permitted modifications to this junction comprise the temporary removal of street furniture and temporary hardcoring of roadside verges and/or roundabout islands; each of which were assessed in the permitted development.
- A detailed set of upgrade works and transport/access mitigation measures were proposed for the L7800, L78001 and L77951 in the assessment for the permitted development (See Annex 7 of Vol I EIAR). These works have been re-evaluated for the current application. The EIAR confirms the turbines can be delivered to the site without any requirement for any additional physical upgrade works to any public road. The permitted upgrade works are sufficient to accommodate the increased length of turbine blades which the delivery vehicles will be almost identical to those required to deliver the permitted turbine components and will not exert any additional weight to carriageways or structures along the route.
- Concludes that the delivery of the turbines will not result in any increased effects on transport and access compared to the permitted development.

Telecommunications

- No potential effects noted.

Operational Impacts

Transport and Access

- The proposed development will not result in any additional vehicular movements or effects on transport and access during the operational phase.

Telecommunications

- No potential effects noted.

Decommissioning Impacts
Transport and Access • The proposed development will not alter the predicted decommissioning phase effects previously assessed for the permitted development. **Telecommunications** • No decommissioning impacts noted.
Cumulative Impacts
Transport and Access, Telecommunications and Aviation • No cumulative impacts expected.

19.4. Mitigation

19.4.1. Transport and Access

Mitigation Measures are discussed in Section 4.10, Vol I of the EIAR. The EIAR notes that all mitigation measures in the EIAR for the permitted development (Chapter 13, Vol II) and those described in the Traffic Impact Assessment (Annex 7) are required to be implemented in full for the proposed development. No additional mitigation measures are assessed as being required.

19.4.2. Telecommunications

Mitigation Measures are discussed in Section 4.10.2, Vol I of the EIAR. The EIAR notes that in the event of any effects occurring, appropriate mitigation measures such as those set out in Chapter 12, Vol II and as required in accordance with Condition No. 17 of the permitted development will be implemented in full following consultation with the relevant service provider or affected resident.

19.4.3. Aviation

No mitigation measures noted.

19.5. Residual Effects

Subject to implementation of mitigation measures outlined, the proposed development is unlikely to result in a significant impact to Transport and Access, Telecommunications and Aviation.

19.6. The Assessment: Direct and Indirect Effects

19.6.1. Traffic and Transport

I have examined, analysed and evaluated Chapter 4.10 of the EIAR, and all of the associated documentation on file including Annex 7 Vol I (Traffic Impact Assessment) in relation to Material Assets.

I am satisfied based on the minor amendments proposed to the wind farm that no likely significant effects are likely in relation to Transport and Access when compared to the permitted development. An additional 222 no. construction related trips are expected compared to the permitted development. I am satisfied that the additional traffic movements during construction phase of development will not give rise to any significant traffic hazards or disruptions along any of the roads or junctions.

The haul routes and road upgrades proposed remain the same as those permitted in the parent permission. I am satisfied that no additional impacts are likely to occur in terms of Transport and Access.

The potential impacts associated with the Operational Phase are not considered significant.

19.6.2. Telecommunications

I am satisfied that given the nature of the proposed amendments, significant effects on telecommunications links are unlikely to occur. I note the concern of the appellants in relation to impact on telecommunications. In the event of any effects occurring, I am satisfied that implementation of the mitigation measures set out in Chapter 12, Vol II EIAR and in accordance with Condition No. 17 of the parent permission, will appropriately deal with any significant effects. This matter can be dealt with by way of a condition to comply with the conditions attached to the parent permission on the site.

19.6.3. Aviation

I am satisfied that there is no likelihood of additional effects on, or interactions with, civil or military aviation over and above those assessed and permitted in the parent permission because the proposed development does not include an increase in the height of any structures, including wind turbines.

19.7. **Conclusion: Direct and Indirect (Material Assets including Transport and Access, Telecommunications and Aviation)**

I have considered the written submissions made in relation to Material Assets and am satisfied that they have been appropriately addressed in this assessment and that no significant adverse effects are likely to arise, subject to compliance with implementation of the EIAR mitigation measures and compliance with recommended conditions. The proposed development will not give rise to any significant residual or cumulative impacts with other developments in the surrounding area.

20.0 Interactions

Chapter 4.11 of the EIAR evaluates the potential interaction of effects described within the EIAR. The EIAR notes that the potential for interactions to occur is assessed in EIAR Vol I, which should also be read in conjunction with Chapter 14, Vol II. The titles of environmental topics between Vol I and Vol II differ as a result of the coming into force of Directive 2014/52/EU, with the titles from Directive 2014/52/EU.

I have considered the interactions and interrelationships between environmental effects and am satisfied that significant impacts in relation to interactions can be avoided, managed and mitigated by the measures contained within the EIAR and any recommended planning conditions.

21.0 Reasoned Conclusion

Having regard to the examination of environmental information contained above, and in particular to the EIAR's and supplementary information provided by the developer, and the submission by the third parties and prescribed bodies in the course of the application, I consider that the main significant direct and indirect effects of the proposed development on the environment area, and will be mitigated as follows:

- During construction, there will be temporary negative **Population and Human Health** effects relating to noise, traffic and dust. This will be mitigated by the implementation of the final CEMP.
- Negative impacts on **biodiversity** and **water** arising from the construction phase activities including felling of conifer plantation in particular are likely to

occur if left unmitigated. There could be an increase in suspended solid pollution entering nearby watercourses and affecting aquatic ecology. This could occur during periods of heavy rainfall and negative impacts could be significant if not mitigated. Mitigation measures in relation to protecting biodiversity and aquatic life are detailed in the preliminary CEMP and Surface Water Management Plan to ensure than no pollutants area allowed to enter downstream watercourses ensuring no deterioration in water quality.

- Negative **Shadow Flicker** effects based on 'worst case' values, could potentially impact 28 no. of the 37 no. dwellings assessed in the EIAR. Mitigation Measures proposed in the EIAR include technical solutions (See Section 18.4 of this report). In the event of an impact on a dwelling, when shadow flicker is predicted to occur if the sun is shining, the wind turbines will be temporarily shut down remotely. With the implementation of mitigation measures, the proposed development will be below the limits set out in the WEDG, 2006 guidelines and the Conditions attached to the permitted development.
- In the absence of mitigation measures, 3 no. dwellings of the 37 no. dwellings assessed are predicted to exceed the **noise** limits prescribed by An Bord Pleanála in the permitted development. Following implementation of technological mitigation measures to curtail the operation of certain turbines at specific wind speeds, it is assessed that no noise sensitive receptor (dwelling) will experience noise levels in excess of maximum limits.
- The proposed development would have a significant positive impact on **Climate** as it would result in the generation of additional renewable energy with consequent positive impacts for the reduction of CO2 and climate benefits.

In conclusion, having regard to the above identified significant impacts, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation measures outlined in the EIAR and any recommended conditions.

22.0 The Likely Significant Effects on a European Site (Appropriate Assessment)

22.1. Introduction

The areas addressed in this section are as follows;

- Compliance with Articles 6(3) of the EU Habitats Directive
- Appropriate Assessment Screening Determination (See Appendix 2 of this Report)
- Appropriate Assessment Conclusions

22.2. Compliance with Articles 6(3) of the EU Habitats Directive

Article 6(3) of this Directive requires that any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European Site.

22.3. Issues Raised in relation to Appropriate Assessment

The Appellant, Mr Sweetman has raised the point in their appeal that the Local Authority did not carry out an Appropriate Assessment in accordance with the Directive and the decisions of the Courts of Justice of the European Union.

The Planning Authorities decision on this application was appealed and the Board is now the competent authority for making the decision.

In this section of my report, I carry out a Stage 1 and 2 Appropriate Assessment in relation to the proposed development. (Also refer to Appendix 2 and 3 of this Report). I have assessed the Applicants AA Screening and NIS. I have completed my own assessment below and have provided a reasoned conclusion at the end of my assessment.

22.4. **The Natura Impact Statement**

The application was accompanied by an NIS which was prepared in line with current best practice and describes the proposed development, the project site and the surrounding area. The NIS contained a Stage 1 Screening Assessment which concluded that a Stage 2 Appropriate Assessment was required. It concluded that;

> '*Without further assessment or mitigation, it is not possible to completely exclude likely significant effects from the project in combination with the consented wind farm (and other projects and plans). An appropriate assessment should therefore be completed for the project in combination with the consented wind farm and other projects and plans). The assessment should encompass River Barrow and River Nore SAC and River Nore SPA, and the freshwater aquatic qualifying interest features of these which occur in the Owenbeg River and at its confluence of the River Nore. Likely significant effects on other Natura 2000 sites and qualifying interest features can be excluded as there is no impact pathway.'*

The applicants NIS outlined the methodology used for assessing potential impacts on the habitats and species within several European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for these sites and their conservation objectives, assessed impacts alone and cumulative impacts with other plans and projects including the consented wind farm, it detailed the conservation objectives of the European Sites and suggested mitigation measures.

The report concluded that, subject to the implementation of best practice and the recommended mitigation measures in the NIS and the accompanying EIAR, the proposed development would not result in direct, indirect or cumulative impacts which would have the potential to adversely affect the qualifying interests of these European Sites.

22.5. **AA Screening Determination (See Appendix 2 of this Report)**

In accordance with Section 177U(4) of the Planning and Development Act 2000 (as amended) and on the basis of objective information, I conclude that the proposed development is likely to have a significant effect on the protected habitat, fish and animal species of the River Barrow and River Nore SAC (002162) 'in combination' in

respect of effects associated with construction phase works, specifically associated with tree felling. In addition, the proposed development is likely to have a significant effect on the QI species Kingfisher of the River Nore SPA (004233) in the event of a significant suspended solids pollution event.

I do not consider that any other European sites fall within the zone of influence of the project based on a combination of factors including the nature and scale of the project, the distance from the site to European sites, and any potential pathways which may exist from the development site to a European site, aided in part by the applicant's Appropriate Assessment Screening Report and NIS for the proposed development, the conservation objectives of Natura 2000 sites, the lack of suitable habitat for qualifying interests, as well as by the information on file and I have also visited the site.

The Applicants AA Screening included four European Sites in total, two of which have a direct hydrological link to the subject site, which as outlined above have been screened in for Stage 2 assessment.

Two other European Sites were screened out at Stage 1 in the applicants report including Ballyprior Grassland SAC and Lisbigney Bog SAC. These sites are located c. 5.1km to 11.1km, respectively in distance from the proposed development site. These were screened out due to there being no direct hydrological link and hence, no likely significant effects. I consider there is no direct link hydrologically or otherwise between the proposed development site and these two European Sites and consider they can also be screened out at Stage 1. I consider that due to the separation distance, there is no meaningful pathways between the subject site and Ballyprior Grassland SAC and Lisbigney Bog SAC.

It is therefore reasonable to conclude that on the basis of the information on the file, which I consider adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on the following European Sites in view of the site(s) conservation objectives;

- Ballyprior Grassland SAC [002256]
- Lisbigney Bog SAC [000869]

I conclude that a Stage 2 Appropriate Assessment is not therefore required for the two sites outlined above.

To conclude, I consider that Appropriate Assessment (Stage 2) [under Section 177V of the Planning and Development Act 2000] is required on the basis of the effects of the project 'in-combination' for the following sites, for which the potential for significant effects could not be excluded:

- River Barrow and River Nore SAC (002162)
- River Nore SPA (004233)

This conclusion is based on:

- Objective information presented in the Screening Report,
- Standard pollution controls that would be employed regardless of proximity to a European site and effectiveness of same,
- Distance from European Sites,
- The hydrological linkages from the subject site to the River Barrow and River Nore SAC and the River Nore SPA,
- The absence of a meaningful pathway to any European site in the case of Ballyprior Grassland SAC and Lisbigney Bog SAC.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

22.6. **Appropriate Assessment - Stage 2 (Appendix 3 of this Report)**

22.7. **Appropriate Assessment Conclusions**

The proposed development has been considered under the assessment requirements of Section 177U and 177AE of the Planning and Development Act 2000 and having regard to:

- The scientific information on file in respect of the River Barrow and River Nore SAC (002162) and the River Nore SPA (004233),

- The potential impacts and mitigation measures proposed for the construction, phase of the proposed development.

This conclusion is based on a complete assessment of all aspects of the proposed project. I consider that it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans and projects would / would not adversely affect the integrity of the European site nos. 002162, 004233 or any other European site, in view of the site's Conservation Objectives.

23.0 **Recommendation**

Having regard to the foregoing, I recommend that permission for the amendments to the wind farm development permitted under ABP Ref. PL11.248518 be **GRANTED** permission for the following reasons and considerations subject to conditions.

24.0 **Reasons and Considerations**

Having regard to;

County, European, National, Regional, and other support for renewable energy development as follows:

- The policies set out in Laois County Development Plan 2021 – 2027 (the Plan), specifically LCDP - Action Area 4 – ENERGY.
- RED III (European Renewable Energy Directive (EU/2023/2413))
- The European Wind Power Action Plan
- REPowerEU Plan 2022 and Directive EU 2018/2001, as amended 18.05.2022
- European Green Deal 2020
- The National Planning Framework 2018-2040 (NPF)
- The National Development Plan 2021-2030 (NDP)
- The Climate Action and Low Carbon Development (Amendment) Act 2021
- The Climate Action Plan 2024 (CAP 2024)
- The Energy Security in Ireland to 2030, Energy Security Package, Nov. 2023
- The National Energy Security Framework, April 2022
- The Policy Statement on Security of Electricity Supply, November 2021
- The Long-Term Strategy on Greenhouse Gas Emissions Reductions (April 2023)
- The National Climate and Energy Plan 2021-2030 (NCEP)

- The National Biodiversity Action Plan (NBAP)
- The National Landscape Strategy for Ireland 2015-2025 (NLS)
- The Regional Spatial Economic Strategy for the Southern Region 2020-32 (RSES)
- The documentation submitted with the planning application including the Environmental Impact Assessment Reports (EIARs), Appropriate Assessment Screening and NIS,
- The submissions made in connection with the application,
- Mitigation measures proposed for the construction of the site,
- Mitigation measures and Monitoring proposed for the operation of the site,
- The pattern of development in the area,
- The planning history associated with the site,
- The separation distances between the proposed development and dwellings or other sensitive receptors,
- The likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the absence of likely significant effects of the proposed development on European Sites.

24.1. **Proper Planning and Sustainable Development**

The principle of development upon which amendments are now sought is established under the parent permission approved by An Bord Pleanála under ABP File Ref PL11.248519 and through a Judicial Review process, where all grounds were dismissed.

I consider that subject to compliance with the conditions set out below, the proposed development would be in accordance with European, National, and Regional renewable energy policies and with the provisions of Local policy, would be consistent with the obligations of the Climate Action Plan 2024, would not seriously injure the visual amenities of the area or have an unacceptable impact on the character of the landscape, would not have a significant adverse impact on ecology, would be acceptable in terms of traffic safety and would make a positive contribution to Ireland's renewable energy and security of energy supply requirements. The proposed development would therefore be in accordance with the proper planning and sustainable development of the area.

24.2. Likely Effects on the Environment/Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking account of:

a) the scale and location of the proposed amendments within a previously permitted wind farm development site,

b) the Environmental Impact Assessment Reports (EIAR's) and associated documentation submitted in support of the application,

c) the Screening for Appropriate Assessment and NIS and associated documentation submitted in support of the application,

d) the planning authority reports, and the submissions received from the Observers and Prescribed Bodies, and

e) the Inspector's report.

The Board considered that the environmental impact assessment report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development, and identifies and describes adequately the direct, indirect, residual and cumulative effects of the proposed development on the environment. The Board agreed with the examination, set out in the Inspector's report, of the information contained in the environmental impact assessment report and associated documentation submitted by the applicant and submissions made in the course of the application.

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated as follows:

- During construction, there will be temporary negative **Population and Human Health** effects relating to noise, traffic and dust. This will be mitigated by the implementation of the final CEMP.
- Negative impacts on **biodiversity** and **water** arising from the construction phase activities including felling of conifer plantation in particular are likely to occur if left unmitigated. There could be an increase in suspended solid pollution entering nearby watercourses and affecting aquatic ecology. This could occur during periods of heavy rainfall and negative impacts could be

significant if not mitigated. Mitigation measures in relation to protecting biodiversity and aquatic life are detailed in the preliminary CEMP and Surface Water Management Plan to ensure than no pollutants are allowed to enter downstream watercourses ensuring no deterioration in water quality.

- Negative **Shadow Flicker** effects based on 'worst case' values, could potentially impact 28 no. of the 37 no. dwellings assessed in the EIAR. Mitigation Measures proposed in the EIAR include technical solutions (See Section 18.4 of this report). In the event of an impact on a dwelling, when shadow flicker is predicted to occur if the sun is shining, the wind turbines will be temporarily shut down remotely. With the implementation of mitigation measures, the proposed development will be below the limits set out in the WEDG, 2006 guidelines and the Conditions attached to the permitted development.
- In the absence of mitigation measures, 3 no. dwellings of the 37 no. dwellings assessed are predicted to exceed the **noise** limits prescribed by An Bord Pleanála in the permitted development. Following implementation of technological mitigation measures to curtail the operation of certain turbines at specific wind speeds, it is assessed that no noise sensitive receptor (dwelling) will experience noise levels in excess of maximum limits.
- The proposed development would have a significant positive impact on **Climate** as it would result in the generation of additional renewable energy with consequent positive impacts for the reduction of CO2 and climate benefits.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures proposed, and subject to compliance with the conditions set out below, the effects of the proposed development on the environment, by itself and in combination with other plans and projects in the vicinity would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

24.3. **Appropriate Assessment: Stage 1**

The Board considered the Screening Report for Appropriate Assessment and all other relevant submissions and carried out an appropriate assessment screening exercise

in relation to the potential effects of the proposed development on designated European sites. The Board noted that the proposed development is not directly connected with or necessary for the management of any European Site and considered the nature, scale, and location of the proposed development, as well as the report of the Inspector. The Board agreed with the screening exercise carried out by the Inspector.

The Board concluded that, having regard to the qualifying interests for which the sites were designated and in the absence of connections to and distance between the application site and the European sites, including Ballyprior Grassland SAC [002256] and Lisbigney Bog SAC [000869], they could be screened out from further consideration and that the proposed development, individually or in combination with other plans or projects would not be likely to have significant effects on these European Sites or any other European Site in view of the sites' conservation objectives and that a Stage 2 appropriate assessment is therefore not required in relation to these European Sites. The Board considered that an appropriate assessment of the implications of the proposed development for the River Barrow and River Nore SAC (002162) and the River Nore SPA (004233) required further investigation.

24.4. **Appropriate Assessment: Stage 2**

The Board considered the Natura Impact Statement and all other relevant submissions and carried out an appropriate assessment of the implications of the proposed development for the River Barrow and River Nore SAC [002162] and the River Nore SPA [004233].

The Board considered that the information before it was adequate to allow the carrying out of an Appropriate Assessment as well as the report of the Inspector. In completing the assessment, the Board considered the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects, the mitigation measures which are included as part of the current proposal and the Conservation Objectives for these European Sites. In completing the Appropriate Assessment, the Board accepted and adopted the Appropriate Assessment carried out in the Inspector's report in respect of the potential effects of the proposed development on the aforementioned European Sites, having regard to

the sites' Conservation Objectives. In overall conclusion, the Board was satisfied that the proposed development would not adversely affect the integrity of the River Barrow and River Nore SAC (002162) or the River Nore SPA (004233) or any other European Site in view of the sites' Conservation Objectives.

25.0 **Conditions**

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, including the detailed mitigation measures set out in the EIAR and NIS, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.

2. All conditions attached to An Bord Pleanála reference number PL11.248518, An Bord Pleanála reference number PL10.248392 and An Bord Pleanála reference number ABP-308448-20 shall be complied with in full, except as may otherwise be required in order to comply with the following conditions.

   Reason: In the interest of clarity.

3. All environmental mitigation measures set out in the Environmental Impact Statement, Natura Impact Statement, and associated documentation submitted by the applicant to the planning authority and An Bord Pleanála, shall be implemented in full, except as may otherwise be required in order to comply with the following conditions.

   Reason: In the interest of protection of the environment.

4. The developer shall extend the area of land to be archaeologically monitored to include the land-take associated with the proposed development and comply with Condition No. 9 of PL10.248518.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

5. Detailed measures outlined in the EcIA in relation to the protection of bats including a bat buffer zone setback shall be submitted to and agreed in writing with the planning authority prior to the commencement of development.

Reason: To ensure the protection of the natural heritage within the site.

6. The following design requirements shall be complied with;

(a) The wind turbine dimensions shall be in accordance with the detail as set out in Drawing No. PNW_PAS_GA_001 Turbine Comparison Drawing and Drawing No. PNW_PAS_GA_002 Typical Turbine Elevation Drawing as submitted to the Planning Authority. Specifically, the overall tip height shall be 136.5 metres and the rotor diameter shall be 117 metres.

(b) Cables within the site shall be laid underground.

(c) No advertising material shall be placed on or otherwise be affixed to any structure on the site without a prior grant of planning permission.

Reason: In the interest of visual amenity.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Laura Finn
Planning Inspector
8th August 2024

Appendix 1 - Form 1 – EIA Pre-Screening

EIA Pre-Screening

[EIAR not submitted]

An Bord Pleanála Case Reference	ABP-316305-23
Proposed Development Summary	Amend previously permitted Wind Farm development. An EIAR and NIS accompanies this application.
Development Address	Lands at Graguenahown Knockardagur Boleybawn & Ironmills (Kilrush), Co. Laois

1. Does the proposed development come under. the definition of a 'project' for the purposes of EIA? (that is involving construction works, demolition, or interventions in the natural surroundings)	**Yes**	X
	No	

2. Is the proposed development of a class specified in Part 1 or Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) and does it equal or exceed any relevant quantity, area or limit where specified for that class?

Yes	X	• Part 2 (3) Energy Industry *(i)- Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts.* In relation to this current amendment application, the following is relevant: • Schedule 5, Part 2, Para. 13 Changes, extensions, development and testing, (a) *Any change or extension of development which would:-* *(ii) result in an increase in size greater than-* *- 25 per cent, or*	EIA Mandatory

		- *an amount equal to 50 per cent of the appropriate threshold, whichever is the greater.'* The proposed Vestas V117-4.3MW wind turbines will have a total output of 47.3MW compared to the approved output of 35.2MW, which will result in an increased output of 12.1MW or 34%. The proposed increase in electrical output for the amendment application exceeds 25% of the output of the permitted development (25% of the permitted development being greater than 50% of the appropriate threshold). Hence, the proposed development falls for assessment under the EIA Directive.	
No			Proceed to Q.3

3. Is the proposed development of a class specified in Part 2, Schedule 5, Planning and Development Regulations 2001 (as amended) but does not equal or exceed a relevant quantity, area or other limit specified [sub-threshold development]?

		Threshold	**Comment (if relevant)**	**Conclusion**
No		N/A		N/A
Yes		Class/Threshold…..		N/A

4. Has Schedule 7A information been submitted?

No	N/A	**Preliminary Examination required**
Yes	N/A	**Screening Determination required**

Inspector: __Laura Finn_____ Date: __8th August 2024_____

Appendix 2 – AA Screening Determination

Screening for Appropriate Assessment
Screening Determination

Step 1: Description of the project

I have considered the proposed application for modifications to the Wind Farm in light of the requirements of S177U of the Planning and Development Act 2000 as amended.

The approved Pinewoods Wind Farm, which is the subject of this modification application is located within both Counties Laois and Kilkenny and comprises of 11 wind turbines, over a total site area of c. 40ha.

The amendments in the current application relate to the design of the consented Wind Farm development under ABP Ref. PL11.248518 (Laois County Council, Reg Ref 16/620). The proposed amendments occur within the Laois component on the consented development only. The site is located in c. 3km east of Ballinakill Village and c. 8km southeast of Abbeyleix.

In summary, the amendments include;

- Increase in the rotor diameter from 103m to 117m;
- Reduction of turbine hub heights from 85m to 78m;
- Re-siting of 3 no. wind turbines;
- Associated re-siting of ancillary infrastructure including turbine foundations, crane hardstandings, and electrical cabling;
- Additional felling of c. 9.3ha of commercial forestry for bat mitigation;
- Revised surface water measures due to the tree felling;
- Minor site investigations works comprising trial holes to confirm existing ground conditions;
- All associated site development, access and reinstatement works.

The project is not directly connected with or necessary to the management of any Natura 2000 site.

The nearest European Sites, which are hydrologically connected to the consented wind farm include the River Barrow and River Nore SAC [002162] located c. 0.73km north of the main project site, or c. 2.2km downstream via the Graiguenhown Stream and the River Nore SPA [004233] located c. 4.6km southwest, or c. 6.4km downstream via the Boleybawn Stream.

Other European sites within 15km of the project site include Ballyprior Grassland SAC [002256] located c. 11.1km northeast of the site and Lisbigney Bog SAC [000869], located 5.1km west of the site.

There are two streams within the consented Wind Farm, which are tributaries of the Owenbeg River, which is a tributary of the River Nore and several other streams which drain the consented wind farm site and the surrounding area.

No connections were identified between the consented wind farm site and the Lisbigney Bog SAC and Ballyprior Grassland SAC.

Step 2: Potential impact mechanisms from the project [consider direct, indirect, temporary/permanent impacts that could occur during construction, operation and, if relevant, decommissioning]
For the purposes of screening for impacts, the Wind Farm amendments have been assessed in combination with the approved Wind Farm.

Construction / Felling Works

- **Pollution from surface water runoff** –
  Forestry operations pose similar risks of aquatic pollution as construction works, with exposed bare soil at risk of being washed by rainwater into the surrounding watercourses.
  Impact of suspended solid pollution of the Graiguenahown and Knockbaun Streams, which are a tributary of the River Nore, therefore leading to impacts on the Qualifying Interest Features of the SAC; and impacts on the kingfisher population of the River Nore SPA due to a large-scale suspended solid pollution event.
  Suspended solid pollution could affect the river vegetation, and the spawning grounds of fish, with knock on effects for fish populations and the animals that feed on them. This has the potential to reduce species abundance or distribution below the levels set out in the conservation objectives or prevent restoration to those levels.
  The risk only applies to the freshwater aquatic qualifying interest features in the Owenbeg River and the River Nore around its confluence with the Owenbeg River, since the other rivers and terrestrial and marine habitats are too distant to be impacted.

Step 3: European Sites at risk

With reference to the potential impact mechanisms from the proposal, identify the European site(s) and qualifying features potentially at risk. Examine Site specific conservation objectives and relevant and supporting documents.

Table 1 European Sites at risk from impacts of the proposed project		
Conservation objectives: To maintain favourable conservation condition **M** To restore favourable conservation condition **R** To maintain or restore favourable conservation condition **M R**		
River Barrow and River Nore SAC [NPWS Site Code - 002162] – Located c. 0.73km north of the main project site or c. 2.2km downstream via the Graiguenhown Stream River Barrow and River Nore SAC | National Parks & Wildlife Service (npws.ie) The SAC consists of the freshwater stretches of the Barrow and Nore River catchments as far upstream as the Slieve Bloom Mountains, and it also includes the tidal elements and estuary as far downstream as Creadun Head in Waterford. The site passes through eight counties – Offaly, Kildare, Laois, Carlow, Kilkenny, Tipperary, Wexford and Waterford. Special Conservation Objectives are set by the NPWS (19 July 2011 – Version 1)		
Effect mechanism	**Impact pathway/Zone of influence**	**Qualifying interest features at risk**

A. Contaminated surface water run-off from construction works / felling	0.73km north of the main project site or 2.2km downstream via the Graiguenhown Stream **Hydrological connection**	**Qualifying Interests: Habitats** [1130] Estuaries **M** [1140] Tidal Mudflats and Sandflats **M** [1170] Reefs **M** [1310] Salicornia Mud **M** [1330] Atlantic Salt Meadows **R** [1410] Mediterranean Salt Meadows **R** [3260] Floating River Vegetation **M** [4030] Dry Heath **M** [6430] Hydrophilous Tall Herb Communities **M** [7220] Petrifying Springs **M** [91A0] Old Oak Woodlands **R** [91E0] Alluvial Forests **R** **Qualifying Interests: Species** [1016] Desmoulin's Whorl Snail (Vertigo moulinsiana) **M** [1029] Freshwater Pearl Mussel (Margaritifera margaritifera) *The status of the freshwater pearl mussel (Margaritifera margaritifera) as a qualifying Annex II species for the River Barrow and River Nore SAC is currently under review. The outcome of this review will determine whether a site-specific conservation objective is set for this species. Please note that the Nore freshwater pearl mussel (Margaritifera durrovensis) remains a qualifying species for this SAC.* [1092] White-clawed Crayfish (Austropotamobius pallipes) **M** [1095] Sea Lamprey (Petromyzon marinus) **R** [1096] Brook Lamprey (Lampetra planeri) **R** [1099] River Lamprey (Lampetra fluviatilis) **R** [1103] Twaite Shad (Alosa fallax) **R** [1106] Atlantic Salmon (Salmo salar) **R** [1355] Otter (Lutra lutra) **R** [1421] Killarney Fern (Trichomanes speciosum) **M** [1990] Nore Pearl Mussel (Margaritifera durrovensis) **R**
River Nore SPA (NPWS Site Code – 004233) located c. 4.6km southwest, or c. 6.4km downstream via the Boleybawn Stream. River Nore SPA | National Parks & Wildlife Service (npws.ie) The River Nore SPA is a long, linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co. Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island, Co. Kilkenny. The site includes the river channel and marginal vegetation.		

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 22 pairs of Kingfisher (based on 16 probable and 6 possible territories) within the SPA. Other species which occur within the site include Mute Swan (35), Mallard (267), Cormorant (14), Grey Heron (45), Moorhen (14), Snipe (17) and Sand Martin (1,029) – all figures are peak counts recorded during the 2010 survey.

The River Nore SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

Special Conservation Objectives are set by the NPWS (12/10/22 – Version 1)

Effect mechanism	**Impact pathway/Zone of influence**	**Qualifying interest features at risk**
A. Contaminated surface water run-off from construction works / felling	Located c. 4.6km southwest, or c. 6.4km downstream via the Boleybawn Stream. **Hydrological connection**	[A229] Kingfisher (Alcedo atthis) **M R**

Ballyprior Grassland SAC [NPWS Site Code - 002256] – Located c. 11.1km northeast of the site

Ballyprior Grassland SAC | National Parks & Wildlife Service (npws.ie)

Ballyprior Grassland is an important example of orchid-rich calcareous grassland, a habitat listed on Annex I of the E.U. Habitats Directive. The site contains a diverse flora and an exceptionally rich myco-flora. This site is also important in the context of the loss of most other similar species rich grasslands in the area to agricultural improvement.

SCREENED OUT – NO LIKELY SIGNIFICANT EFFECTS DUE TO DISTANCE FROM SAC

Effect mechanism	**Impact pathway/Zone of influence**	**Qualifying interest features at risk**
None – no pathways for effects	This SAC is located c. 11.1km north-east of the Site	[6210] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) **R**

Lisbigney Bog SAC [NPWS Site Code - 000869] - Located c. 5.1km west of the site.

Lisbigney Bog SAC | National Parks & Wildlife Service (npws.ie)

Lisbigney Bog is situated about 5 km north-east of Durrow in Co. Laois. Although referred to as a bog, this site is actually a wetland dominated by fen vegetation. It is a former lake basin and is now criss-crossed by streams.

Lisbigney Bog is of considerable conservation significance for the good example of Cladium fen, a priority-listed habitat on Annex I of the E.U. Habitats Directive, and for the population of Vertigo moulinsiana (Desmoulin's Whorl Snail) that it supports. **SCREENED OUT – NO LIKELY SIGNIFICANT EFFECTS DUE TO DISTANCE FROM SAC AND NO DIRECT HYDROLOGICAL CONNECTION TO THE SITE**		
Effect mechanism	**Impact pathway/Zone of influence**	**Qualifying interest features at risk**
None – no pathways for effects	Located c. 5.1km to the west of the site	(1016) Desmoulin's Whorl Snail (Vertigo moulinsiana) **R** (7210) Calcareous fens with Cladium mariscus and species of the Caricion davallianae **R**

Step 4: Likely significant effects on the European site(s) 'In Combination'

Note that this project could not occur 'alone', it could only occur in combination with the consented development.

Table 2: Could the project undermine the conservation objectives

European Site and qualifying feature	**Conservation objectives:** To maintain favourable conservation condition **M** To restore favourable conservation condition **R** To maintain or restore favourable conservation condition **M R** **(https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf)**	**Could the conservation objectives be undermined (Y/N)?** **Effect A – Contaminated surface water run-off from construction works / felling**
	Qualifying Interests: Habitats	
River Barrow and River Nore SAC [NPWS Site Code - 002162] – Located c. 0.73km north of the main project site or c. 2.2km downstream via the Graiguenhown Stream	[1130] Estuaries **M**	N
	[1140] Tidal Mudflats and Sandflats **M**	N
	[1170] Reefs **M**	N
	[1310] Salicornia Mud **M**	N
	[1330] Atlantic Salt Meadows **R**	N
	[1410] Mediterranean Salt Meadows **R**	N
	[3260] Floating River Vegetation **M**	Y
	[4030] Dry Heath **M**	N
	[6430] Hydrophilous Tall Herb Communities **M**	N
	[7220] Petrifying Springs* **M**	N
	[91A0] Old Oak Woodlands **R**	N
	[91E0] Alluvial Forests* **R**	N
	Qualifying Interests: Species	
	[1016] Desmoulin's Whorl Snail (Vertigo moulinsiana) **M**	N

	[1029] Freshwater Pearl Mussel (Margaritifera margaritifera)	N
	[1092] White-clawed Crayfish (Austropotamobius pallipes) **M**	Y
	[1095] Sea Lamprey (Petromyzon marinus) **R**	N
	[1096] Brook Lamprey (Lampetra planeri) **R**	Y
	[1099] River Lamprey (Lampetra fluviatilis) **R**	Y
	[1103] Twaite Shad (Alosa fallax) **R**	N
	[1106] Atlantic Salmon (Salmo salar) **R**	Y
	[1355] Otter (Lutra lutra) **R**	Y
	[1421] Killarney Fern (Trichomanes speciosum) **M**	N
	[1990] Nore Pearl Mussel (Margaritifera durrovensis) **R**	Y

European Site and qualifying feature	**Conservation objectives:** To maintain favourable conservation condition **M** To restore favourable conservation condition **R** To maintain or restore favourable conservation condition **M R** (https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004233.pdf)	**Could the conservation objectives be undermined (Y/N)?** **Effect A Contaminated surface water run-off from construction works / felling**
River Nore SPA (NPWS Site Code – 004233) located c. 4.6km southwest, or c. 6.4km downstream via the Boleybawn Stream.	[A229] Kingfisher (Alcedo atthis) **M R**	Y

I conclude that the proposed development would have a likely significant effect on the qualifying interests of **River Barrow and River Nore SAC [NPWS Site Code - 002162) and River Nore SPA (NPWS Site Code – 004233)** from effects associated with;

- Construction, specifically the release of suspended solid pollution from the construction site.

There is potential without mitigation, for suspended solids, released as part of the construction process to wash into watercourses and impact the qualifying interest features of the River Barrow and River Nore SAC. The tree felling of 9.3ha of commercial forestry increases the risk of suspended solid pollution affecting the Owenbeg River which is a tributary of the River Barrow and River Nore SAC.

QIs at risk include river vegetation and fish species and otter which feed on them.

The risk also exists for the River Nore SPA.

An appropriate assessment is required on the basis of the effects of the project 'alone'. Further assessment in-combination with other plans and projects is not required at this time. **Proceed to AA.**

Step 5: Where relevant, likely significant effects on the European site(s) 'in-combination with other plans and projects'

When considering the project in combination with the consented wind farm, the risk of impacts from suspended solid pollution remains and may be enhanced. This has been assessed in Step 4 above.

Overall Conclusion- Screening Determination

In accordance with Section 177U(4) of the Planning and Development Act 2000 (as amended) and on the basis of objective information, I conclude that the proposed development is likely to have a significant effect on the protected habitats and species of the **River Barrow and River Nore SAC [NPWS Site Code – 002162]** and **the River Nore SPA (NPWS Site Code – 004233)** 'in combination' in respect of effects associated with construction, specifically tree felling due to the risk of suspended solids being released into the watercourses, which are hydrologically linked to the European Sites.

I consider that **Ballyprior Grassland SAC [NPWS Site Code - 002256]** and **Lisbigney Bog SAC [NPWS Site Code – 000869]** can be screened out from Stage 2 assessment as I consider there is no likely significant impact on the European Sites based on the distance to the subject sites and the lack of direct/indirect hydrological links or pathways.

It is therefore determined that Appropriate Assessment (Stage 2) [under Section 177V of the Planning and Development Act 2000] is required on the basis of the effects of the project 'in combination'.

This conclusion is based on:

- Objective information presented in the Screening Report,
- Standard pollution controls that would be employed regardless of proximity to a European site and effectiveness of same,
- Distance from European Sites,
- The hydrological link from the site to the River Barrow and River Nore SAC and the River Nore SPA,
- The absence of meaningful pathway to any European site in the case of Ballyprior Grassland SAC and Lisbigney Bog SAC.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

Appendix 3 – Appropriate Assessment (Stage 2)

Introduction (Stage 2 Assessment)

The following is an Appropriate Assessment based on the conclusion of the AA Screening in Appendix 2 of this report, that the proposed development is likely to have a significant effect on the protected habitats and species of the **River Barrow and River Nore SAC [NPWS Site Code – 002162]** and **the River Nore SPA (NPWS Site Code – 004233)** 'in combination' in respect of effects associated with the risk of suspended solids being released into the watercourses, which are hydrologically linked to the European Sites.

Summary Matrix for European Sites (Stage 2)
AA Summary Matrix for River Barrow and River Nore SAC (002162)
River Barrow and River Nore SAC [NPWS Site Code - 002162] – Located c. 0.73km north of the main project site or c. 2.2km downstream via the Graiguenhown Stream **Description of Site:** Floating river vegetation is well represented in the Barrow and in the many tributaries of the site. In the Barrow the species found include water-starworts (Callitriche spp.), Canadian Pondweed (Elodea canadensis), Bulbous Rush (Juncus bulbosus), water-milfoils (Myriophyllum spp.), the pondweed Potamogeton x nitens, Broad-leaved Pondweed (P. natans), Fennel Pondweed (P. pectinatus), Perfoliated Pondweed (P. perfoliatus) and crowfoots (Ranunculus spp.). The water quality of the Barrow has improved since the vegetation survey was carried out (EPA, 1996). The site is very important for the presence of a number of E.U. Habitats Directive Annex II animal species including Freshwater Pearl Mussel (Margaritifera margaritifera), White-clawed Crayfish, Salmon, Twaite Shad, three lamprey species – Sea Lamprey, Brook Lamprey and River Lamprey, the tiny whorl snail Vertigo moulinsiana and Otter. This is one of only a handful of spawning grounds in the country for Twaite Shad. The freshwater stretches of the River Nore main channel is a designated salmonid river. The Barrow/Nore is mainly a grilse fishery though spring salmon fishing is good in the vicinity of Thomastown and Inistioge on the Nore. The upper stretches of the Barrow and Nore, particularly the Owenass River, are very important for spawning. In addition to the Freshwater Pearl Mussel, the site also supports two other freshwater mussel species, Anodonta anatina and A. cygnea. Three rare invertebrates have been recorded in alluvial woodland at Murphy's of the River. These are: Neoascia obliqua (Order Diptera: Syrphidae), Tetanocera freyi (Order Diptera: Sciomyzidae) and Dictya umbrarum (Order Diptera: Sciomyzidae). The main threats to the site and current damaging activities include high inputs of nutrients into the river system from agricultural run-off and several sewage plants, over-grazing within the woodland areas, and invasion by non-native species, for example Cherry Laurel (Prunus laurocerasus) and Rhododendron (Rhododendron ponticum). The water quality of the site remains vulnerable. Good quality water is necessary to maintain the populations of the Annex II animal species listed above. Good quality water is dependent on controlling fertilisation of the grasslands, particularly along the Nore. It also requires that sewage be properly treated before discharge. Drainage activities in the catchment can lead to flash floods which can damage the many Annex II species present. Capital and maintenance dredging within the lower reaches of the system pose a threat to migrating fish species such

as lamprey and shad. Land reclamation also poses a threat to the salt meadows and the populations of legally protected species therein.

Conservation Objectives:
To maintain the favourable conservation condition of [1130] Estuaries, [1140] Tidal Mudflats and Sandflats, [1170] Reefs, [1310] Salicornia Mud, [3260] Floating River Vegetation, [4030] Dry Heath, [6430] Hydrophilous Tall Herb Communities, [7220] Petrifying Springs*, [1016] Desmoulin's Whorl Snail (Vertigo moulinsiana), [1092] White-clawed Crayfish (Austropotamobius pallipes), [1421] Killarney Fern (Trichomanes speciosum) **M**

To restore the favourable conservation condition of [1330] Atlantic Salt Meadows, [1410] Mediterranean Salt Meadows, [91A0] Old Oak Woodlands, [91E0] Alluvial Forests*, [1095] Sea Lamprey (Petromyzon marinus), [1096] Brook Lamprey (Lampetra planeri), [1099] River Lamprey (Lampetra fluviatilis), [1103] Twaite Shad (Alosa fallax), [1106] Atlantic Salmon (Salmo salar), [1355] Otter (Lutra lutra), [1990] Nore Pearl Mussel (Margaritifera durrovensis), [1029] Freshwater Pearl Mussel (Margaritifera margaritifera) **R**

Summary of Appropriate Assessment	
Qualifying Interest Feature	**Conservation Objectives, Attributes & Targets (Summary)**
[3260] Floating River Vegetation **M**	**Habitat distribution –** No decline, subject to natural processes. **Habitat area –** Areas stable or increasing subject to natural processes. **Hydrological regime: river flow –** Maintain appropriate hydrological regimes. **Hydrological regime: groundwater discharge –** The groundwater flow to the habitat should be permanent and sufficient to maintain tufa formation. **Substratum composition: particle size range –** The substratum should be dominated by large particles and free from fine sediments. **Water chemistry: minerals –** The groundwater and surface water should have sufficient concentrations of minerals to allow deposition and persistence of tufa deposits. **Water quality: suspended sediment –** The concentration of suspended solids in the water column should be sufficiently low to prevent excessive deposition of fine sediments. **Water Quality: nutrients –** The concentration of nutrients in the water column should be sufficiently low to prevent changes in species composition or habitat condition. **Vegetation composition: typical species –** Typical species of the relevant habitat sub-type should be present and in good condition. **Floodplain connectivity –** The area of active floodplain at and upstream of the habitat should be maintained.
[1092] White-clawed Crayfish (Austropotamobius pallipes) **M**	**Distribution -** Present throughout the SAC **Target –** Juveniles and/or females with eggs in at least 50% of positive samples **Negative Indicator species** – No alien crayfish species **Disease –** No instances of disease **Water Quality –** At least Q3-4 at all sites sampled by EPA **Habitat Quality –** No decline in heterogeneity or habitat quality
[1096] Brook Lamprey (Lampetra planeri) **R**	**Distribution –** Access to all watercourses down to first order streams

	Population structure of juveniles – At least three age/size groups of brook/river lamprey present **Juvenile density in fine sediment –** 2 juvenile per m2 of fine sediment **Extent and distribution of spawning habitat** – No decline in extent and distribution of spawning beds **Availability of juvenile habitat** – More than 50% of sample sites positive
[1099] River Lamprey (Lampetra fluviatilis) **R**	**Distribution –** Greater than 75% of main stem and major tributaries down to second order accessible from estuary. **Population structure of juveniles –** At least three age/size groups of brook/river lamprey present **Juvenile density in fine sediment –** 2 juvenile per m2 of fine sediment **Extent and distribution of spawning habitat** – No decline in extent and distribution of spawning beds **Availability of juvenile habitat** – More than 50% of sample sites positive
[1106] Atlantic Salmon (Salmo salar) **R**	**Distribution –** 100% of river channels down to second order accessible from estuary. **Adult spawning fish –** Conservation Limit for each system consistently exceeded. **Salmon fry abundance –** Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 min sampling **Out-migrating smolt abundance** – No significant decline **Number and distribution of redds** – No decline in number and distribution of spawning redds due to anthropogenic causes. **Water Quality –** At least Q4 at all sites sampled by EPA
[1355] Otter (Lutra lutra) **R**	**Distribution –** No significant decline **Extent of terrestrial habitat –** No significant decline. Area mapped and calculated as 122.8ha above high water mark (HWM); 1136ha along riverbanks/around ponds. **Extent of marine habitat –** No significant decline. Area mapped and calculated as 857.7ha. **Extent of freshwater (river) habitat** – No significant decline. Length mapped and calculated as 616.6km. **Extent of freshwater (lake) habitat** – No significant decline. Area mapped and calculated at 2.6ha. **Couching sites and holts** – No significant decline. **Fish biomass available** – No significant decline.
[1990] Nore Pearl Mussel (Margaritifera durrovensis) **R**	**Distribution –** Maintain at 15.5km **Population size: adult mussels –** Restore to 5,000 adult mussels **Population structure: recruitment** – Restore to at least 20% of population no more than 65mm in length; and at least 5% of population no more than 30mm in length. **Population structure: adult mortality –** No more than 5% decline from previous number of five adults counted; dead shells less than 1% of the adult population and scattered in distribution. **Habitat Extent –** Restore suitable habitat in length of river corresponding to distribution target (15.5km) and any additional stretches necessary for salmonid spawning. **Water Quality: Macroinvertebrates and phytobenthos (diatoms)** – Restore water quality macroinvertebrates: EQR greater than 0.93

	Substratum quality: Filamentous algae (macroalgae), macrophytes (rooted higher plants) – Restore substratum quality-filamentous algae: absent or trace (,5%); macrophytes: absent or trace (5%) **Substratum quality: sediment –** Restore substratum quality-stable cobble and gravel substrate with very little fine material; no artificially elevated levels of fine sediment. **Substratum quality: oxygen availability** – Restore to no more than 20% decline from water column to 5cm depth in substrate. **Hydrological regime: flow variability** – Restore appropriate hydrological regimes. **Host Fish** – Maintain sufficient juvenile salmonids to host glochidial larvae.

Potential for Impact / Mitigation Measures

- Construction Phase Impacts relating to the release of suspended solid pollution from the construction site into the Graiguenahown and Knockbaun Streams, which feed the Owenbeg River, a tributary of the River Barrow and River Nore SAC and River Nore SPA. The felling of forestry to accommodate the development to provide for bat mitigation potentially increases the risk of suspended solid entering the local watercourses and reaching the European Sites through the tributaries. The impact would occur for the project in combination with the consented development.
- The impact of suspended solids reaching the River Barrow and River Nore SAC is that it could affect the River Vegetation, the spawning grounds of fish, with effects for fish populations and the animals that feed on them. This has the potential to reduce species abundance or distribution below the levels set out in the conservation objectives or prevent restoration to those levels.
- Mitigation Measures are proposed in Chapter 4.8 of the applicants NIS. These will be discussed in further in this assessment.

Qualifying Interest Feature	**Conservation Objectives, Attributes & Targets (Summary)**
Qualifying Interests: Habitats [1130] Estuaries **M** [1140] Tidal Mudflats and Sandflats **M** [1170] Reefs **M** [1310] Salicornia Mud **M** [1330] Atlantic Salt Meadows **R** [1410] Mediterranean Salt Meadows **R** [4030] Dry Heath **M** [6430] Hydrophilous Tall Herb Communities **M** [7220] Petrifying Springs **M** [91A0] Old Oak Woodlands **R** [91E0] Alluvial Forests **R** **Qualifying Interests: Species** [1016] Desmoulin's Whorl Snail (Vertigo moulinsiana) **M** [1029] Freshwater Pearl Mussel (Margaritifera margaritifera) [1095] Sea Lamprey (Petromyzon marinus) **R** [1103] Twaite Shad (Alosa fallax) **R** [1421] Killarney Fern (Trichomanes speciosum) **M**	**Significant Likely Impacts for these QIs screened out at Stage 1 (See Appendix 2 of this report)** **The Risk to QI's applies to freshwater aquatic qualifying interest features. The other river and the terrestrial marine habitats are too distant from the subject site to be affected.** **No Mitigation Required**

AA Summary Matrix for the River Nore SPA (004233)

River Nore SPA (NPWS Site Code – 004233) located c. 4.6km southwest, or c. 6.4km downstream via the Boleybawn Stream

Description of Site: The River Nore SPA is a long, linear site that includes the following river sections: the River Nore from the bridge at Townparks, (north-west of Borris in Ossory) to Coolnamuck (approximately 3 km south of Inistioge) in Co. Kilkenny; the Delour River from its junction with the River Nore to Derrynaseera bridge (west of Castletown) in Co. Laois; the Erkina River from its junction with the River Nore at Durrow Mills to Boston Bridge in Co. Laois; a 1.5 km stretch of the River Goul upstream of its junction with the Erkina River; the Kings River from its junction with the River Nore to a bridge at Mill Island, Co. Kilkenny. The site includes the river channel and marginal vegetation.

For a large part of its course the River Nore traverses Carboniferous limestone plains; it passes over a narrow band of Old Red Sandstone rocks below Thomastown.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species: Kingfisher.

A survey in 2010 recorded 22 pairs of Kingfisher (based on 16 probable and 6 possible territories) within the SPA. Other species which occur within the site include Mute Swan (35), Mallard (267), Cormorant (14), Grey Heron (45), Moorhen (14), Snipe (17) and Sand Martin (1,029) – all figures are peak counts recorded during the 2010 survey.

The River Nore SPA is of high ornithological importance as it supports a nationally important population of Kingfisher, a species that is listed on Annex I of the E.U. Birds Directive.

Conservation Objectives: To maintain the Favourable conservation condition of Kingfisher in River Nore SPA.

Summary of Appropriate Assessment	
Qualifying Interest Feature	**Attribute/Targets (Summary)**
(A229) Kingfisher Alcedo atthis	**Population Size** – No significant decline in the long term. **Productivity Rate** – Sufficient productivity to maintain the population trend as stable or increasing. **Spatial distribution of territories** – No significant loss of distribution in the long term, other than that occurring due to natural patterns of variation. **Extent and quality of nesting banks and other suitable nesting features** – Sufficient area of high-quality nesting habitat to support the population target. **Forage spatial distribution, extent, abundance and availability** – Sufficient number of locations, area of suitable forage habitat and available forage biomass to support the population target. **Water Quality** – Both biotic (i.e. Q-value) and abiotic indices reflect overall good-high quality status. **Barriers to connectivity** – Number, location, shape. **Disturbance to breeding sites** – Disturbance occurs at levels that do not significantly impact upon breeding Kingfisher.

Potential for Impact/ Mitigation Measures
• Construction Phase Impacts relating to the release of suspended solid pollution from the construction site into the Graiguenahown and Knockbaun Streams, which feed the Owenbeg River, a tributary of the River Barrow and River Nore SAC and River Nore SPA. The felling of forestry to accommodate the development to provide for bat mitigation potentially increases the risk of suspended solid entering the local watercourses and reaching the European Sites through the tributaries. The impact would occur for the project in combination with the consented development. • The impact of suspended solids reaching the River Barrow and River Nore SAC is that it could affect the River Vegetation, the spawning grounds of fish, with the know on effects for fish populations and the animals that feed on them. This has the potential to reduce species abundance or distribution below the levels set out in the conservation objectives or prevent restoration to those levels. • Mitigation Measures are proposed in Chapter 4.8 of the applicants NIS. These will be discussed in further detail below.

Potential Impacts and Recommended Mitigation Measures

In this section, I will consider the Potential Impacts and Schedule of Mitigation, which are contained in Chapter 4.8 of the Applicants NIS and summarised as follows;

- The applicant has noted that the project could not occur alone, it could only occur in combination with the consented windfarm development Only one impact pathway has been identified between the site and the European Sites, which would occur in combination with the consented wind farm development. This impact is the release of suspended solid pollution from the construction site into the Graiguenahown and Knockbaun Streams, which feed the Owenbeg River, a part of the River Barrow and River Nore SAC and the River Nore SPA.
- In summary, suspended solids may impact the QI features of Water courses of plain to montane levels with the Ranunculion fluitantis and Calitricho-Batrachion vegetation; White-clawed crayfish; Brook Lampre; River Lamprey; Atlantic Salmon; Otter and Nore Freshwater Pearl Mussel.
- Suspended solids could occur during periods of heavy rainfall, with exposed soil washing off the construction site and into the streams which drain the development site and then on into the Owenbeg River and River Nore.
- Suspended solid pollution could reduce water quality and smother spawning beds with fine sediments, which may in turn affect the quality of the Annex I habitat, reduce survival of Annex I species sensitive to pollution and reduce the

availability of breeding habitat for the fish species, resulting in population declines and knock-on effects for the otter population.

- The project has the potential to elevate the risk to the SAC through suspended solid pollution due to the increase in vegetation clearance as compared to the consented wind farm.
- Chapter 4.7 of the Applicants NIS, Table 5 provides an assessment of potential effects on the relevant conservation objectives. The assessment indicates that there is a clear potential for unmitigated effects to undermine the conservation objectives of the River Barrow and River Nore SAC and River Nore SPA.

I consider the Applicant has provided a detailed description of the likely potential effects of the proposed development at all phases of development, which focuses on the impact of construction works on the Qualifying Interests of the River Barrow and River Nore SAC and the River Nore SPA.

A review of planning applications in proximity to the Site was completed. Two other projects were identified, which may potentially act in-combination with the Proposed Development. Two Plans were also identified with potential for in combination effects, as well as a number of development plan objectives and policies to directly and indirectly protect and improve the River Barrow and River Nore SAC and River Nore SPA. I have reviewed the details of these projects, plans and policies which were identified in Chapter 4.6 of the Applicants NIS.

I consider that no cumulative impacts are likely to occur due to the mitigation included in those projects, the scale of the projects/plans approved, time factors involved in the various projects and distance of other projects/plans from the development site.

Mitigation Measures

The applicant has identified that adverse effects cannot be excluded for the River Barrow and River Nore SAC and the River Nore SPA, due to release of suspended solids into surface waters hydrologically connected to the European Sites.

Mitigation measures are aimed at addressing possible risks to water quality from the construction phase of the proposed development. The mitigation measures proposed in the NIS are contained in Chapter 4.8, which includes the mitigation for the

Consented Wind Farm, the associated Construction Environmental Management Plan including Appendix B the Surface Water Management Plan.

In summary the mitigation measures are designed to prevent suspended solid pollution and other pollution from reaching watercourses. They have been designed to manage high levels of rainfall (1 in 100 year storm event) and will not be overwhelmed during long periods of heavy rain. Measures outlined in Chapter 4.8.1 of the Applicants NIS include the installation of interception drains and silt traps, blocking of any drains which currently collect discharge from roadside swales discharging directly into existing watercourses, provision of perimeter swales and settlement ponds. Silt control measures are proposed and proper management of fuels, lubricants etc. on site are detailed.

Chapter 4.8.2 of the Applicants NIS discusses the proposed project, specifically in relation to the amendments to the Surface Water Management Plan, which has been modified to include the area affected by tree removal. The modifications will ensure that there is no reduction in capacity or efficacy of the attenuation measures, ensuring that no deleterious matter discharges to downstream watercourses.

I consider the mitigation measures outlined in the Applicants NIS to be robust, appropriate and adequate to protect the Qualifying Interests of the European Sites. I am satisfied that there will be no significant adverse impacts on European Sites subject to compliance with relevant legislation, implementation of the final CEMP mitigation measures, which will reiterate all proposed mitigation contained within the NIS and planning documentation and compliance with recommended conditions.

Residual Effects

Taking account of the mitigation measures outlined above, I consider that there is no potential for residual adverse effects on the Qualifying Interests of the River Barrow and River Nore SAC (002162) and the River Nore SPA (004233), as a result of the proposed development.

This conclusion has been based on a complete assessment of all implications of the project alone and in combination with other plans and projects.

Appropriate Assessment Conclusion

I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of these European sites in light of their conservation objectives (subject to the implementation of mitigation measures outlined above).