

REFERENCES

Introduction

Bitpower (November 2021). Ireland's Data Hosting Industry – Biannual Report

Carlow County Council (2022). Carlow County Development Plan 2022-2028.

Department of Environment, Climate and Communications (2023) Climate Action Plan 2024.

Department of Environment, Climate and Communications (2021). Climate Action and Low Carbon Development (Amendment) Bill 2021.

Department of Communications, Climate Action & Environment (2021). Climate Action Plan 2021

Department of Communications, Climate Action & Environment (2022). Climate Action Plan 2023

Department of Communications, Energy & Natural Resources (2015). Ireland's Transition to a Low Carbon Energy Future 2015-2030.

Department of Communications, Energy & Natural Resources (2014). Draft Bioenergy Plan 2014.

Department of the Environment, Community and Local Government (2013). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. DoEHLG, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities. DoEHLG, Dublin.

Department of Housing, Planning and Local Government (December 2019) Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Department of Housing, Planning and Local Government (August 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach. DHPLG, Dublin.

Department of Housing, Planning and Local Government (2013) Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review. DHPLG, Dublin.

Department of Public Expenditure and Reform (DPER) (2013). Future Expenditure Risks associated with Climate Change/Climate Finance.

Dr Eimear Cotter, Head of Low Carbon Technologies, SEAI - "Energy Security in Ireland 2015"

EirGrid (October 2022) All Island Generation Capacity Statement 2022-2031.

Environmental Protection Agency (2002) Guidelines on Information to be Contained in Environmental Impact Statements. EPA, Wexford.

Environmental Protection Agency (2003) Advice Notes on Current Practice in the Preparation of Environmental Impact Statements. EPA, Wexford.

on Plan 2024.



Environmental Protection Agency (September 2015): Draft - Advice Notes on Current Practice (in the preparation on Environmental Impact Statements). EPA, Wexford.

Environmental Protection Agency (2016): Ireland's Environment - An Assessment.

Environmental Protection Agency (May 2022): Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. EPA, Wexford.

Environment Protection Agency (June 2023) Ireland Greenhouse Gas Emissions Projections 2022-2040

Environmental Protection Agency (July 2023): Ireland's Provisional Greenhouse Gas Emissions 1990-2022.

Environmental Protection Agency (2023): Air Quality in Ireland 2022.

European Commission (March 2022) REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. Brussels.

https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131

European Commission (March 2022) REPowerEU: Joint European Action for more affordable, secure and sustainable energy. Strasbourg. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1511

European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report.

European Environmental Agency (2022): Air Quality in Europe – 2022 Report

European Union (2018). Directive 2018/2009/EU. European Parliament and European Council.

European Union (2014). Directive 2014/52/EU. European Parliament and European Council.

European Union (2011). Directive 2011/92/EU. European Parliament and European Council.

European Union (2009). Directive 2009/147/EC. European Parliament and European Council.

European Union (1992). Directive 92/43/EEC. European Parliament and European Council.

European Union (2017) Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2017) Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2017) Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

Government of Ireland (April 2022). National Energy Security Framework (NESF).

Government of Ireland (2021). National Development Plan 2021-2030.

IEA (2024), Renewables 2023, IEA, Paris

IPCC, 2022: Climate Change 2022: Impacts, Adaptation and Vulnerability. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.

IPCC, 2022: Climate Change 2022: Mitigation of Climate Change. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.



IPCC, 2021: Climate Change 2021: The Physical Science Basis. Sixth Assessment Report, Intergovernmental Panel on Climate Change AR6 Report.

IPCC Fifth Assessment Synthesis Report (2014). Intergovernmental Panel on Climate Change AR5 Report.

IPCC, 2023: Summary for Policymakers. In: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland, pp. 1-34, doi: 10.59327/IPCC/AR6-9789291691647.001

Ireland Wind Energy Association (2015). Data Centre Implications for Energy Use in Ireland

IRENA (2023), IRENA's energy transition support to strengthen climate action: Insight to impact 2023, International Renewable Energy Agency, Abu Dhabi.

Irish Statute Book (2018). European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

Irish Statute Book (2001). Planning and Development Regulations (as amended) S.I. No. 600 of 2001. Stationery Office, Dublin.

Irish Statute Book (2000). Planning and Development Acts 2000 to 2019. Stationery Office, Dublin.

Joint Committee on Climate Action (March 2019). Climate Change: A Cross- Party Consensus for Action

Kilkenny County Council (2020). Carlow County Development Plan 2021-2027.

Pöyry & Element Energy (2015) Potential CCS Cost Reduction Mechanisms Summary

Pöyry (March 2014). The Value of Wind Energy to Ireland.

Sustainable Energy Authority of Ireland (December 2022): Ireland's energy-related CO2 emissions heading in wrong direction. http://www.seai.ie/News_Events/Press_Releases/2014/Biomass-is-a-big-part-of-the-solution-but-not-the-whole-solution.html

Sustainable Energy Authority of Ireland (April 2016): Ireland's Energy Targets – Progress, Ambitions & Impacts.

Sustainable Energy Authority of Ireland (November 2023) National Energy Projections – 2023 Report

Sustainable Energy Authority of Ireland (January 2024): Energy in Ireland - 2023 Report.

Wind Energy Ireland (April 2021). Economic Impact of Onshore Wind in Ireland.

World Meteorological Organisation (2024) State of the Global Climate 2023



Background to the Proposed Project

Carlow County Council (2022) Carlow County Development Plan 2022-2028

Climate Change Advisory Council (2023). Annual Review 2023.

Climate Change Advisory Council Carbon Budget Technical Report (October 2021) https://www.gov.ie/en/publication/9af1b-carbon-budgets/

PRORINGO. 7305 ROSA Commission for Regulation of Utilities (2018) Enduring Connection Policy Stage 1 (ECP-1). Dublin

Department of Environment, Climate and Communications (2021). Climate Action Plan 2019

Department of Environment, Climate and Communications (2021). Climate Action Plan 2021

Department of Environment, Climate and Communications (2021). Climate Action Plan 2023

Department of Environment, Climate and Communications. Renewable Energy Support Scheme

Department of Environment, Climate and Communications (2018). National Adaptation Framework -Planning for a Climate Resilient Ireland 2018.

Department of Environment, Climate and Communications (2017) National Mitigation Plan 2017

Department of Environment, Climate and Communications (2017). Fourth Progress Report on the National Renewable Energy Action Plan.

Department of Environment, Climate and Communications (2016). Code of Practice for Wind Energy Development in Ireland - Guidelines for Community Engagement 2016.

Department of Communications, Energy & Natural Resources (2015). Ireland's Transition to a Low Carbon Energy Future 2015-2030.

Department of Communications, Energy & Natural Resources (2015). White Paper on Energy Policy in Ireland 2015-2030, Dublin.

Department of Environment, Climate and Communications (2022). National Energy Security Framework 2022.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Guidelines 2006.

Department of Housing, Planning, and Local Government (2017). Department Circular PL5/2017

Department of Housing, Planning, and Local Government (2019) Draft Revised Wind Energy Development Guidelines

Department of Agriculture, Food and Marine. Forest Service Guidelines Department of Agriculture, Food and Marine. Environmental Requirements for Afforestation (2016).

EirGrid (2020) All Island Generation Capacity Statement 2020 – 2029, Dublin.

EirGrid (October 2022). All Island Generation Capacity Statement 2022 – 2031.

Eirgrid (2019). Strategy 2020-2025: Transform the Power System for Future Generations



Eirgrid (2017). Grid Implementation Plan 2017-2022 for the Electricity Transmission System in Ireland.

Environmental Protection Agency (2021). Ireland's Greenhouse Gas Emission Projections 2020-2040.

Environmental Protection Agency (June 2023). Ireland's Greenhouse Gas Emission Projections 2022-2040.

Environmental Protection Agency, Marine Institute, Met Éireann (August 2021). Climate Status Report for Ireland 2020.

Environmental Protection Agency (January 2024). Irelands Climate Change Assessment.

European Commission (March 2022). REPowerEU.

European Commission (July 2021) European Green Deal - European Climate Law.

European Commission (July 2021). 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality.

European Commission (December 2019). European Green Deal.

European Commission (2011). Energy Roadmap 2050.

European Union (2018). Directive 2018/2001/EU. European Parliament and European Council.

European Union (2018). Effort Sharing Regulation (ERS).

European Union (2017). Fit for 55. https://www.consilium.europa.eu/en/policies/eu-plan-for-a-green-transition/

European Union (2014). 2030 Climate and Energy Framework.

European Union (2022) Regulation 2022/2577

Government of Ireland (2021). National Development Plan 2021-2030.

Government of Ireland (2020) Programme for Government 2020.

Government of Ireland (2018). Project Ireland 2040 National Planning Framework

Government of Ireland (2015). The Climate Action and Low Carbon Development Act 2015 (as amended)

Intergovernmental Panel on Climate Change (August 2021). Climate Change 2021 'The Physical Science Basis'.

Intergovernmental Panel on Climate Change (October 2018). Global Warming of 1.5°C'

Irish Statute Book (2000-2024). Planning and Development Acts 2000 (as amended). Stationery Office, Dublin.

Irish Wind Energy Association. https://www.iwea.com/about-wind/faqs

Irish Wind Energy Association (2013). Best Practice Principles in Community Engagement and Community Commitment 2013.



Irish Wind Energy Association (2012). Best Practice Guidelines for the Irish Wind Energy Industry.

Joint Committee on Climate Action (2019). Climate Change: A Cross-Party Consensus for Action.

The Kilkenny City and County Development Plan 2021-2027

National Energy Security Framework (2022).

Scottish Natural Heritage (2012, 2018). Assessing the Cumulative Impacts of onshore Wind Energy Developments.

Southern Regional Assembly (2020). Regional Spatial and Economic Strategy, Southern Region, 2020.

Sustainable Energy Authority of Ireland (2023), Energy in Ireland 2023 Report.

Sustainable Energy Authority of Ireland (2023), National Energy Projections 2023.

Sustainable Energy Authority of Ireland (SEAI) website, www.seai.ie

United Nations (1992). United Nations Framework Convention on Climate Change

United Nations (1997). Kyoto Protocol to the United Nations Framework Convention on Climate Change

United Nations (2015). COP21 Paris Agreement, Paris.

United Nations (2021). COP27 Climate Change Conference, Sharm el-Sheikh.

United Nations (2023). COP28 - United Arab Emirates



Carlow County Council (2022) Carlow County Development Plan 2022-2028

Department of Environment, Climate and Communications (2022). Climate Action Plan 2023.

Diagram and Local Government (December 2019) Draft Revised Wind

Department of Housing, Planning and Local Government (September 2017). Ireland 2040 - Our Plan. Dublin

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines 2006.

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

European Union (2017) Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

European Union (2014). Directive 2014/52/EU. European Parliament and European Council.

European Union (2011). Directive 2011/92/EU. European Parliament and European Council.

Irish Statute Book (2000). Planning and Development Acts 2000 to 2019. Stationery Office, Dublin.

Irish Wind Energy Association (2008). Best Practice Guidelines for the Irish Wind Energy Industry.

Kilkenny County Council (2021) Adopted City and County Development Plan

Sustainable Energy Authority of Ireland (April 2013) Methodology for Local Authority Renewable Energy Strategies. RPS, Ireland.



Description of the Proposed Project

Agriculture and Food Development Authority (2014). Forestry Act 2014.

COFORD (2004): Forest Road Manual - Guidelines for the Design, Construction and Management of Forest Roads.

Coillte (2009): Forest Operations & Water Protection Guidelines.

73/05/202× Commission for the Regulation of Utilities (2017) Review of Typical Consumption Figures Decision. https://www.cru.ie/document_group/review-of-typical-consumption-figures-decision-paper/

Construction Industry Research and Information Association (CIRIA) (2006). Guidance on 'Control of Water Pollution from Linear Construction Projects' (CIRIA Report No. C648, 2006).

Construction Industry Research and Information Association (CIRIA) (2006). : Control of Water Pollution from Construction Sites - Guidance for Consultants and Contractors. CIRIA C532. London.

Department of Communications, Climate Action and Environment (2018) Renewable Electricity Support Scheme (RESS) 1. DCCAE, Dublin.

Department of Agriculture, Fisheries and Food (2011). Forest Service Policy on the Granting of Felling Licences for Wind Farm Development.

Department of the Environment, Heritage and Local Government (2006) Wind Energy Development

Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.

Environmental Protection Agency Ireland (2009) Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses. EPA, Wexford.

Environmental Protection Authority (2007). Environmental Protection Guidelines for Construction and Land Development in the ACT.

Environmental Protection Agency Ireland (1999) Wastewaster Treatment Manuals - Treatment Systems for Small Communities, Business, Leisure Centres and Hotels. EPA, Wexford.

Forestry Commission (2004): Forests and Water Guidelines, Fourth Edition. Publ. Forestry Commission, Edinburgh.

Forest Services (2018). (Draft) Forestry and Freshwater Pearl Mussel Requirements - Site Assessment and Mitigation Measures.

Forest Service (2000): Forestry and Water Quality Guidelines. Forest Service, DAF, Johnstown Castle Estate, Co. Wexford.

Inland Fisheries Ireland (2016): Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Watercourses.

Institute of Geologists Ireland (2007) Guide for Drilling Wells for Private Water Supplies. IGI, Dublin.

Irish Statute Book (2017) Forestry Regulations 2017 (S.I. No. 191 of 2017).

Irish Statute Book (2007) Waste Management (Collection Permit) Regulations, 2007 as amended (S.I. No. 820 of 2007).

Irish Statute Book (1996) Waste Management Act 1996 (S.I. No. 10 of 1996).



Office of Public Works. Construction, Replacement or Alteration of Bridges and Culverts - A Guide to Applying for Consent under Section 50 of the Arterial Drainage Act, 1945. Available at: https://www.gov.ie/en/publicationyce.infrastru/

Scottish Natural Heritage (2013) Research and Guidance on Restoration and Decommissioning of Wind Farms Commissioned Report No. 591/SNH, Stirling.

Scottish Natural Heritage (2009) Guidance on Methods for Monitoring Bird Populations at Onshore Wind Farms SNH, Perth.

Siltbuster. Concrete Washer. Available at https://www.siltbuster.co.uk/sb_prod/siltbuster-roadsideconcrete-washout-rcw/

UK Guidance Note. PPG5 - Works or Maintenance in or Near Watercourses.

UK Guidance Note. PPG1 - General Guide to Prevention of Pollution.

Wind Energy Ireland. Wind Stats. Available at https://www.windenergyireland.com/about-wind/thebasics/facts-stats



Population and Human Health

American Wind Energy Association and Canadian Wind Energy Association (2009). Wind Turbine Sound and Health Effects - An Expert Panel Review, USA and Canada.

Australian Government National Health and Medical Research Council (NHMRC) Wind Turbines & Health (2010). A Rapid Review of the Evidence. Australia.

Baringa (2019) Wind for a Euro: Cost-benefit analysis of wind energy in Ireland 2000-2020

BiGGAR Economics (2016). Wind Farms and Tourism Trends in Scotland. Midlothian, Scotland.

British Horse Society (2015). Advice on Wind Turbines and Horses – Guidance for Planners and Developers.

Central Statistics Office Ireland (2012). Census of Agriculture 2010 Detailed Results. www.cso.ie

Central Statistics Office Ireland (2018). Census Results 2011 & 2016. www.cso.ie

Centre for Economics and Business Research (2014) The effect of wind farms on house prices. Renewable UK, London.

Chapman and Crichton (2017). Wind turbine syndrome: A communicated disease.

Chapman and Simonetti (2015). Summary of main conclusions reached in 25 reviews of the research literature on wind farms and health.

Climate and Health Alliance (2012). Position Statement on Health and Wind Turbines. Australia.

Climate Exchange (October 2016). Impact of Wind Turbines on House Prices in Scotland.

Danish Wind Industry Association (2003) Shadow Variations from Wind Turbines.

Department of Environment, Climate and Communications (2023) Climate Action Plan 2024

Department of Environment, Climate and Communications (2022). Climate Action Plan 2023.

Department of Communications, Climate Action and Environment (2021) Climate Action Plan (CAP).

Department of Housing, Planning and Local Government (December 2019). Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach. DHPLG, 2017.

Department of Housing, Planning and Local Government (December 2013). Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review

Department of Housing, Planning, Community and Local Government (2017). Key Issues Consultation Paper on the Transposition of the 2014 EIA Directive.

Department of the Environment, Heritage and Local Government (2007). National Climate Change Strategy 2007 – 2012. Stationery Office, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.



Discover Ireland www.discoverireland.ie

EirGrid (2017). EMF & You: Information about Electric & Magnetic Fields and the electricity transmission system in Ireland.

Environmental Protection Agency (2022). Guidelines on the Information to be Contained in Environmental Impact Statements. EPA, Wexford.

Environmental Protection Agency (July 2022) Ireland's Provisional Greenhouse Gas Emissions 1990-2022. www.epa.ie

Environmental Protection Agency (April 2021) Ireland's Final Greenhouse Gas Emissions. www.epa.ie

Environmental Protection Agency (2013) Environmental Protection Agency Licensing Act 1992 as amended.

Eric J. Brunner, Ben Hoen, Joe Rand, David Schwegman, Commercial wind turbines and residential home values: New evidence from the universe of land-based wind projects in the United States, Energy Policy, Volume 185, 2024, 113837, ISSN 0301-4215, https://doi.org/10.1016/j.enpol.2023.113837.

ESB (2017) EMF & You: Information about Electric & Magnetic Fields and the electricity transmission system in Ireland (https://esb.ie/docs/default-source/default-document-library/emf-public-information booklet v9.pdf?sfvrsn=0)

Fáilte Ireland (March 2021) Key Tourism Facts 2019. www.failteireland.ie

Fáilte Ireland (March 2021). Regional tourism performance in 2019.

Fáilte Ireland (August 2018) 2017 Topline Tourism Performance by Region. www.failteireland.ie

Fáilte Ireland (2013) Ireland's Ancient East Path to Growth.

https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/2_Develop_Your_Business/Key%20Projects/Ireland's%20Ancient%20East/Failte_Ireland_Irelands_Ancient_East_Path_to_Growth_Strategy.pdf

Fáilte Ireland (2012). Visitor Attitudes on the Environment: Wind Farms - Update on 2007 Research.

Fáilte Ireland (2008). Visitor Attitudes on the Environment: Wind Farms.

Fáilte Ireland (September 2019). Tourism Facts 2018. Fáilte Ireland. Available at: www.failteireland.ie

Finnish Government's Analysis, Assessment and Research Activities (VN TEAS) (2020). Infrasound Does Not Explain Symptoms Related to Wind Turbines.

Gillespie T, McHale P (2023) Wind Turbines and House Prices Along the West of Ireland: A Hedonic Pricing Approach, Centre for Economic Research on Inclusivity and Sustainability (CERIS) Working Paper Series, 2023/01

Health & Safety Authority (2006) Guidelines on the Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction) Regulations.

Heblich, Dr. S. et al (2016) Impact of wind Turbines on House Prices in Scotland. Climate Xchange

Helimax Energy (2008). Shadow Flicker Analysis. Stantec, Ontario.



HSE Public Health Medicine Environment and Health Group (2017) Position Paper on Wind Turbines and Public Health. Ireland.

the International Commission on Non-Ionizing Radiation Protection (ICNIRP) (2020). RF EMF Guidelines 2020.

Irish Statute Book (2013) Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.1291 of 2013), as amended.

Irish Statute Book (2007) Safety, Health and Welfare at Work (General Application) Regulations 2007 (S.I. No. 299 of 2007), as amended.

Irish Statute Book (2006) Safety, Health and Welfare at Work (Work at Height) Regulations 2006 (S.I. No. 318 of 2006).

Irish Statute Book (2005) Safety, Health and Welfare at Work Act 2005 (No. 10 of 2005), as amended.

Irish Wind Energy Association (2009). Jobs and Investment in Irish Wind Energy – Powering Ireland's Economy. Deloitte, Ireland.

Irish Wind Energy Association (2014). "An Enterprising Wind" An economic analysis of the job creation potential of the wind sector in Ireland, Siemens Limited, Dublin.

Irish Wind Energy Association (January 2020) Interactions Opinion Poll on Wind Energy. Ireland

Irish Wind Energy Association (2012). Best Practice Guidelines for the Irish Wind Energy Industry.

Lawrence Berkley National Laboratory (2013) A Spatial Hedonic Analysis of the Effects of Wind Energy Facilities on Surrounding Property Values in the United States.

Lawrence Berkley National Laboratory (2009). The Impact of Wind Power Projects on Residential Property Values in the United States: A multi-Site Hedonic Analysis. US Department of Energy

Le Blanc et al. (1991). Behavioral and Physiological Responses of Horses to Simulated Aircraft Noise.

Marshall Day Acoustics (2014). Summary of research of noise effects on Animals.

Massachusetts Departments of Environmental Protection and Public Health (2012). Wind Turbine Health Impact Study -Report of Independent Expert Panel. USA.

Massachusetts Institute of Technology (2014) Wind Turbines and Health, A Critical Review of the Scientific Literature, Journal of Occupational and Environmental Medicine Vol. 56 (11).

Met Éireann (2013). 30 Year Averages. https://www.met.ie/climate/30-year-averages

Noble Environmental Power LLC (2006). Wind Fact Sheet #4: Shadow Flicker. Noble Environmental Power, Connecticut.

ODPM Annual Report and Accounts 2004: Housing, Planning, Local Government and the Regions Committee; Planning Policy Statement 22

Pőyry (2014) The Value of Wind Energy to Ireland A report to Irish Wind Energy Association. Cambridge Economics.

Renewable UK (2010). Wind Turbine Syndrome - An independent review of the state of knowledge about the alleged health condition. London, UK.



Siemens (2014) An Enterprising Wind" An economic analysis of the job creation potential of the wind sector in Ireland

Sustainable Energy Authority of Ireland (October 2017). 'Attitudes Towards the Development of Wind Farms in Ireland'. SEAI, Dublin.

Sustainable Energy Authority of Ireland (2011), Wind Energy Roadmap 2011 to 2050. www.seai.ie

Sustainable Energy Authority of Ireland (2003). Attitudes Towards the Development of Wind Farms in Ireland. SEAI, Dublin.

UK Department of Energy and Climate Change (2010). Update of Shadow Flicker Evidence Base. DECC,

Warren, C.R. *et al.*, (2005). Green on Green: Public Perceptions of Wind Power in Scotland and Ireland. Journal of Environmental Planning and Management 48(6): 853-875.

Wind Energy Ireland & KPMG (April 2021) Economic impact of onshore wind in Ireland. www.windenergyireland.com

Wind Energy Ireland & MaREI (March 2021) Our Climate Neutral Future Zero by 50. www.windenergyireland.com

Wind Energy Ireland (January 2021) Public Attitudes Monitor. www.windenergyireland.com

WindEurope (February 2022). Wind Energy in Europe: 2021 Statistics and the Outlook for 2022-2026.

WindEurope (September 2017). Wind energy in Europe: Scenarios for 2030.

World Health Organisation (2018). Environmental Noise Guidelines for the European Region: World Health Organisation Regional Office for Europe, 2018.



Biodiversity

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition) The Bat Conservation Trust, London.

Commission of the European Communities (2013) *Interpretation manual of European Union habitats*. Eur 27. European Commission DG Environment.

Department of Housing, Local Government and Heritage (2024). Ireland's 4th National Biodiversity Action Plan 2023-2030.

EPA 2022, Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Environmental Protection Agency

European Communities (Environmental Impact Assessment) Regulations, 1989 to 2001.

European Communities (Natural Habitats) Regulations, SI 94/1997, SI 233/1998 & SI 378/2005 – http://www.irishstatutebook.ie.

Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council.

Lawton C., Hanniffy, R., Molloy, V., Guilfoyle, C., Stinson, M. & Reilly, E. (2020) All-Ireland Squirrel and Pine Marten Survey 2019. Irish Wildlife Manuals, No. 121. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Martin, J.R., O'Neill, F.H. & Daly, O.H. (2018), The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Marnell, F., Kingston, N. & Looney, D. (2009) Ireland Red List No. 3: Terrestrial Mammals, National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill

NRA (2009a). Guidelines for Assessment of Ecological Impacts of National Road Schemes. Rev 2, June 2009.

NRA (2009b). Guidelines on Ecological Surveying Techniques for Protected Flora and Fauna on National Road Schemes.

O'Neill, F.H., Martin, J.R., Devaney, F.M. & Perrin, P.M. (2013), *The Irish semi-natural grasslands survey 2007-2012*. Irish Wildlife Manuals, No. 78. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.

Perrin et al., (2018). Irish Vegetation Classification (IVC) – An Overview of Concepts, Structure and Tools. In Practice, CIEEM. December 2018, pp 15-19.

Smith, P.G. 2000. Habitat preference, range use and roosting ecology of Natterer's bats (Myotis nattereri) in a grassland-woodland landscape. Thesis submitted for PhD. University of Aberdeen. 297 pages.



Stace, C. (2010). New Flora of the British Isles (3rd Edition). Cambridge: Cambridge University

15



Ornithology

Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. and Fuller, R.J. (2013). *Bird Atlas* 2007–11: The Breeding and Wintering Birds of Britain and Ireland. Thetford, UK: BTO Books.

Band, W., Madders, M. and Whitfield, D. P. (2007). Developing field and analytical methods to assess avian collision risk at wind farms. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.natural-research.org/application/files/4114/9182/2839/Band_et_al_2007.pdf

Bibby, C.J., Burgess, N.D., Hillis, D.M., Hill, D.A. and Mustoe S. (2000). *Bird Survey Techniques*. Massachusetts, United States: Academic Press.

BirdWatch Ireland (2021) I-WEBS Counter Manual. BirdWatch Ireland, Kilcoole, Ireland. Available at: https://birdwatchireland.ie/publications/i-webs-counter-manual/

Brown, A.F. and Shepherd, K. B. (1993). A method for censusing upland breeding waders. *Bird Study*, 40: 189-195. https://doi.org/10.1080/00063659309477182

British Trust for Ornithology (2021) Breeding Bird Survey. British Trust for Ornithology, Thetford, UK. Available at: https://www.bto.org/our-science/projects/bbs

Burke, B., Lewis, L., Fitzgerald, N., Frost, T., Austin, G. and Tierney, T. D. (2018) Estimates of waterbird numbers winter in Ireland, 2011/12-2015/16. *Irish Birds*, 11: 1-12.

Calladine, J., Garner, G., Wernham, C. and Thiel, A (2009). The influence of survey frequency on population estimates of moorland breeding birds. *Bird Study*, 56: 381-388. https://doi.org/10.1080/00063650902984604

CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Chartered Institute of Ecology and Environmental Management, Romsey, UK. Available at: https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/

Chamberlain, D.E., Rehfisch, M.R., Fox, A.D., Desholm, M. and Anthony, S.J. (2006). The effect of avoidance rates on bird mortality predictions made by wind turbine collision risk models. *Ibis*, 148: 198–202.

Council Directive 92/43/EEC 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31992L0043

Council Directive 2009/147/EC 30 November 2009 on the conservation of wild birds. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32009L0147

Council Directive 2014/52/EU 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/:uri=CELEX:32014L0052&rid=1

Crowe, O., Musgrove, A. J. and O'Halloran, J. (2014) Generating population estimates for common and widespread breeding birds in Ireland. *Bird Study*, 61(1): 82-90. https://doi.org/10.1080/00063657.2013.868401

Cummins, S., Bleasdale, A., Douglas, C., Newton, S., O'Halloran, J. and Wilson, H.J. (2010a) The status of Red Grouse in Ireland and the effects of land use, habitat and habitat quality on their distribution. Irish Wildlife Manuals, No. 50. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.



DoHPLG (2018). Guidelines for planning authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. Department of Housing, Planning and Local Government, Government of Ireland, Dublin. Available at: https://www.gov.ie/en/publication/53aee9@stidelines-for-planning-authorities-and-an-bord-pleanala-on-carrying/

Drewitt, A. L. and Langston, R. H. W. (2006) Assessing the impacts of wind farms on birds. *Ibis*, 148: 29-42. https://doi.org/10.1111/j.1474-919X.2006.00516.x

Drewitt, A. L. and Langston, R. H. W. (2008) Collision effects of wind-power generators and other obstacles on birds. *Annals of the New York Academy of Sciences*, 1134(1): 233-266. https://doi.org/10.1196/annals.1439.015

EPA (2022). Guidelines on the information to be contained in Environmental Impact Statement reports. Environmental Protection Agency, Johnstown Castle Estate, Wexford. Available at: https://www.epa.ie/publications/monitoring-assessment/assessment/EIAR_Guidelines_2022_Web.pdf

European Commission (2002). Assessment of plans and projects significantly affecting Natura 2000 sites. Publications Office of the European Union, Luxembourg.

https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura_2000_assess_en.pdf

European Commission (2020). Guidance document on wind energy developments and EU nature legislation. Publications Office of the European Union, Luxembourg. https://ec.europa.eu/environment/nature/natura2000/management/docs/wind_farms_en.pdf

European Union (2022) Article 12 web tool. Available at: https://nature-art12.eionet.europa.eu/article12/

European Communities (Noise Emission by Equipment For Use Outdoors) Regulations, 2001, No. 632/2001. Dublin: Stationary Office. Available at: https://www.irishstatutebook.ie/eli/2001/si/632/made/en/print

Forestry Commission Scotland (2006). Forest operations and birds in Scottish forests - the law and good practice. FCS Guidance Note 32, Forestry Commission Scotland, Inverness, Scotland.

Gibbons, D.W., Reid, J.B. and Chapman, R.A. (1993). The *New Atlas of Breeding Birds in Britain and Ireland:* 1988–1991. T.& A.D. Poyser, London, UK.

Gilbert, G., Gibbons, D.W. and Evans, J. (1998) *Bird monitoring methods.* Bedfordshire, England: Pelagic Publishing, Royal Society for the protection of Birds.

Gilbert, G., Stanbury, A. and Lewis, A. (2021). Birds of Conservation Concern in Ireland 4: 2020-2026. *Irish Birds*, 43:1-22. Available at: https://birdwatchireland.ie/birds-of-conservation-concern-in-ireland/

Goodship, N.M. and Furness, R.W. (2022) Disturbance distances review: an updated literature review of disturbance distances of selected bird species. Research Report 1283, NatureScot, Inverness, Scotland.

Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. and Thompson, D. (2013). *Raptors: a field guide to survey and monitoring.* The Stationery Office, Edinburgh.

International Convention on Wetlands of International Importance, 1975. United Nations Treaty Series 996, entered into force 21 December 1975. Available at:

https://treaties.un.org/doc/Publication/UNTS/Volume%20996/volume-996-I-14583-English.pdf

Lack, P.C. (1986). The atlas of wintering birds in Britain and Ireland. London: T & AD Poyser.



Lewis, L. J., Burke, B., Fitzgerald, N., Tierney, T. D. and Kelly, S. (2019a) Irish Wetland Bird Survey: Waterbird Status and Distribution 2009/10-2015/16. Irish Wildlife Manuals, No. 106 National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Government of Teland.

Lewis, L. J., Coombes, D., Burke, D., Cambrell, Cooling Status and trends of common and widespread Diecomb 2016. Irish Wildlife Manuals, No. 115. National Parks and Wildlife Service, Department of Culture Cooling Ireland. Available at:

McGuinness, D., Muldoon, C., Tierney, N., Cummins, S., Murray, A., Egan, S. and Crowe, O. (2015). Bird Sensitivity Mapping for Wind Energy Developments and Associated Infrastructure in the Republic of Ireland. Birdwatch Ireland, Wicklow, Ireland. Available at:

https://birdwatchireland.ie/app/uploads/2019/09/BWI-Bird-Wind-Energy-devt-Sensitivity-Mapping-Guidance_document.pdf

NPWS (2021) National Biodiversity Action Plan 2017-2021. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland. Available at: $\underline{https://www.npws.ie/sites/default/files/publications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National\%20Biodiversity\%20Action\%20Plan\%20Englications/pdf/National%20Englications/pdf/National%20Englications/pdf/National%20$ ish.pdf

NRA (2009). Guidelines for Assessment of Ecological Impacts of National Road Schemes. National Roads Authority, Ireland. https://www.tii.ie/technical-services/environment/planning/Guidelines-for-Assessment-of-Ecological-Impacts-of-National-Road-Schemes.pdf

Percival, S.M. (2003). Birds and wind farms in Ireland: a review of potential issues and impact assessment. Ecology Consulting, Durham, UK. Available at: https://tethys.pnnl.gov/sites/default/files/publications/Percival_2003.pdf

Planning and Development Act 2000. No. 30/2000, Dublin: Stationary Office. Available at: https://www.irishstatutebook.ie/eli/2000/act/30/enacted/en/html

Ruddock, M. and Whitfield, D.P. (2007). A review of disturbance distances in selected bird species. Natural Research (Projects) Ltd report to Scottish Natural Heritage. Available at:

https://www.nature.scot/sites/default/files/2018-

05/A%20Review%20of%20Disturbance%20Distances%20in%20Selected%20Bird%20Species%20-%20Natural%20Research%20Ltd%20-%202007.pdf

Sharrock, J.T.R. (1976). The Atlas of Breeding Birds in Britain and Ireland. London: T. & A. D. Poyser.

SNH (2000). Wind farms and birds: calculating a theoretical collision risk assuming no avoidance action. Scottish Natural Heritage, Inverness, Scotland. Available at:

https://www.nature.scot/sites/default/files/2017-09/Guidance%20Note%20-%20Windfarms%20and%20birds%20-

%20Calculating%20a%20theoretical%20collision%20risk%20assuming%20no%20avoiding%20action.pdf

SNH (2009). Monitoring the impact of onshore wind farms on birds. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2017-09/Guidance%20Note%20-

%20Monitoring%20the%20impact%20of%20onshore%20windfarms%20on%20birds.pdf

SNH (2016). Assessing connectivity with Special Protection Areas (SPAs). Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2018-08/Assessing%20connectivity%20with%20special%20protection%20areas.pdf



SNH (2017). Recommended bird survey methods to inform impact assessment of onshore wind farms. Scottish Natural Heritage, Inverness, Scotland. Available at:

https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-

 $\label{lem:commended} \begin{tabular}{ll} $\% 20 Recommended \begin{tabular}{ll} $\% 20 survey \begin{tabular}{ll} $\% 20 to \begin{tabular}{ll} $\% 20 inform \begin{t$

SNH (2018a) Avoidance rates for the onshore SNH wind farm collision risk model. Scottish Natural Heritage, Inverness, Scotland. Available at: <a href="https://www.nature.scot/sites/default/files/2018-09/Wind%20farm%20impacts%20on%20birds%20on%20birds%20birds%20on%20birds%20on%20birds%20on%20birds%20on%20birds%20on

 $\underline{\%20 Use\%20 of\%20 Avoidance\%20 Rates\%20 in\%20 the\%20 SNH\%20 Wind\%20 Farm\%20 Collision\%20 Risk\%20 Model.pdf$

SNH (2018b). Assessing the cumulative impacts of onshore wind farms on birds. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/sites/default/files/2018-08/Guidance%20-

%20Assessing%20the%20cumulative%20impacts%20of%20onshore%20wind%20farms%20on%20birds.pdf

SNH (2018c). Assessing significance of impacts from onshore wind farms outwith designated areas. Scottish Natural Heritage, Inverness, Scotland. Available at: https://www.nature.scot/doc/guidance-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect-protected

Wildlife Act 1976, No. 39/1976, Dublin: Stationary Office. Available at: http://www.irishstatutebook.ie/eli/1976/act/39/enacted/en/html?q=wildlife+act

Alerstam, T., Rosén, M., Bäckman, J., Ericson, P.G.P. and Hellgren, O. (2007). Flight speeds among bird species: allometric and phylogenetic effects. *PLoS Biology*, 5(8): e197. https://doi.org/10.1371/journal.pbio.0050197

Duffy, K. and Steward, M. (2008) Turbine search methods and carcass removal trials at the Braes of Doune Windfarm. Natural Research Information Note 4. Natural Research Ltd, Banchory, UK. Available at: https://tethys.pnnl.gov/sites/default/files/publications/Duffy-2008.pdf

Evans P.R. and Pienkowski M.W. (1984) "Population Dynamics of Shorebirds". In: Burger J., Olla B.L. (eds) *Shorebirds*. Boston, MA: Springer

Fossitt, J.A. (2000) A guide to habitats in Ireland. The Heritage Council, Kilkenny, Ireland.

Gillings, S. and Fuller, R.J. (1999). Winter ecology of Golden Plover and Lapwings: a review and consideration of extensive survey methods. BTO Research Report No. 224, The National Centre for Ornithology, Norfolk, UK. Available at:

 $\underline{https://www.bto.org/sites/default/files/shared_documents/publications/research-reports/1999/rr224.pdf}$

Madders, M. and Whitfield, D.P. (2006) Upland raptors and the assessment of windfarm impacts. *Ibis*, 148(s1):43-56. https://doi.org/10.1111/j.1474-919X.2006.00506.x

O'Donoghue (2019). Hen Harrier Roost Types and Guidelines to Roost Watching. Hen Harrier Winter Survey Report. Available at: http://www.ihhws.ie/IHHWS_Guide.pdf

Orta, J., Boesman, P.F.D. and Marks, J.S. (2020). "Eurasian Kestrel (Falco tinnunculus)". In: Billerman, S.M., Keeney, B.K., Rodewald, P.G. and Schulenberg, T.S. (eds). *Birds of the World*. Ithaca, NY, USA: Cornell Lab of Ornithology.

Peach, W.J., Thompson, P.S. and Coulson, J.C. (1994). Annual and long-term variation in the survival rates of British Lapwings *Vanellus vanellus. Journal of Animal Ecology*, 63(1): 60-70. https://doi.org/10.2307/5583



Pearce-Higgins, J.W., Stephen, L., Douse, A. and Langston, R.H.W. (2012). Greater impacts of wind farms on bird populations during construction than subsequent operation: results of a multi-site and multi-species analysis. *Journal of Applied Ecology*, 49: 386–394. https://doi.org/10.1111/13.365-2664.2012.02110.x

Pearce-Higgins, J.W., Stephen, L., Langston, R.H.W., Bainbridge, I.P. and Bullman, R. (2009) The distribution of breeding birds around upland wind farms. *Journal of Applied Ecology*, 46(6): 1323-1331. https://doi.org/10.1111/j.1365-2664.2009.01715.x

Ruddock, M., Mee, A., Lusby, J., Nagle, A., O'Neill, S. and O'Toole, L. (2016). The 2015 National Survey of Breeding Hen Harrier in Ireland. Irish Wildlife Manuals, No. 93. National Parks and Wildlife Service, Department of the Arts, Heritage and the Gaeltacht, Ireland. Available at: https://www.npws.ie/sites/default/files/publications/pdf/IWM93.pdf

Spence, I.M. (1987). Mortality of snipe estimated from a mark and recapture Study. *Ringing and Migration* 9(1)27-31. https://doi.org/10.1080/03078698.1988.9673918

Thaxter, C. B., Lascelles, B., Sugar, K., Cook, A. S. C. P., Roos, S. Bolton, M., Langston, R. H. W. and Burton, N. H. K. (2012). Seabird foraging ranges as a preliminary tool for identifying candidate Marine Protection Areas. *Biological Conservation*, 156: 53-61. https://doi.org/10.1016/j.biocon.2011.12.009

Village, A. (1990) The Kestrel. London: T. & A. D. Poyser.



Land, Soils and Geology

British Standards Institution (BSI). (2015) BS5930 - Code of Practice for Site Investigations.

Department of Housing, Planning and local Government, 2018: Guidelines for Planning Authorities and 13/05/2024 An Bord Pleanála on carrying out Environmental Impact Assessment.

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

European Union, 2017: Guidance on the preparation of the EIA Report (Directive 2011/92/EU as amended by 2014/52/EU).

AFRY (2024). Geotechnical and Peat Stability Report - Seskin Wind Farm, February 2024.

AFRY (2024). Peat & Spoil Management Plan - Seskin Wind Farm, February 2024.

Geological Survey of Ireland (GSI). (1999) Geology of the Shannon Estuary, 1:100,000 scale Bedrock Geology Series, Sheet 19.

Institute of Geologists Ireland (2013): Guidelines for Preparation of Soils, Geology & Hydrogeology Chapters in Environmental Impact Statements.

National Roads Authority (2008): Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes.

Scottish Natural Heritage report (SNH) Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms (SNH, 2013).



Water

CIRIA, 2006: Guidance on 'Control of Water Pollution from Linear Construction Projects' (CIRIA Report No. C648, 2006).

CIRIA, 2006: Control of Water Pollution from Construction Sites - Guidance for Consultants and Contractors. CIRIA C532. London, 2006.

DoHLG, 2006: Wind Farm Development Guidelines for Planning Authorities.

DOE/NIEA (2015): Wind Farms and Groundwater Impacts – A guide to EIA and Planning Considerations

EPA (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

EPA (2021): 3rd Cycle Draft Nore Catchment Report.

EPA (2021): 3rd Cycle Draft Barrow Catchment Report.

AFRY (2024): Geotechnical and Peat Stability Risk Assessment: Seskin Wind Farm.

AFRY (2024): Peat and Spoil Management Plan: Seskin Wind Farm.

GSI (2004): Ballingarry GWB: Summary of Initial Characterisation.

GSI (2004): Shanragh GWB: Summary of Initial Characterisation.

GSI (2004): Castlecomer GWB: Summary of Initial Characterisation.

GSI (2004): Kilkenny GWB: Summary of Initial Characterisation.

GSI (2004): Clifden GWB: Summary of Initial Characterisation.

GSI (2004): Newtown GWB: Summary of Initial Characterisation.

IFI, 2016: Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters, Inland Fisheries Ireland (2016).

IGI, 2013: Guidelines for Preparation of Soils, Geology & Hydrogeology Chapters in Environmental Impact Statements, (Institute of Geologists Ireland, 2013).

NRA, 2008: Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes, (National Roads Authority, NRA, 2008).

PPG1 - General Guide to Prevention of Pollution (UK Guidance Note).

PPG5 - Works or Maintenance in or Near Watercourses (UK Guidance Note).

SNH, 2010: Scottish Natural Heritage report (SNH): Good Practice During Wind Farm Construction.

SNH, 2013: Scottish Natural Heritage report (SNH): Research and Guidance on Restoration and Decommissioning of Onshore Wind Farms.



Air Quality

Council of the European Union (2008) Council Directive 2008/50/EC on ambient ar quality and cleaner air for Europea. Official Journal of the European Union No. L152.

Council of the European Union (2004) Council Directive (2004/107/EC) relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air. Official Journal of the European Union No. L23/3.

Council of the European Union (2002) Council Directive (2002/3/EC) relating to ozone in ambient air. Official Journal of the European Union No. L67/14.

Council of the European Union (2000) Council Directive 2000/69/EC relating to limit values for benzene and carbon monoxide in ambient air. Official Journal of the European Union No. L313.

Council of the European Union (1999) Council Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air. Official Journal of the European Union No. L163/41

Department of Communications, Climate Action and Environment (2023), Climate Action Plan (CAP 2024)

Department of the Environment, Heritage and Local Government (2004) Quarries and Ancillary Activities, Guidelines for Planning Authorities. Stationery Office, Dublin.

Environmental Protection Agency (2023) Air Quality Standards https://airquality.ie/information/airquality-standards

Environmental Protection Agency (2023) Air Quality in Ireland 2022. EPA, Ireland.

Environmental Protection Agency (2022): Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

Environmental Protection Agency (2021). Best Practice Guidelines on the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects.

European Commission (2017). Guidance on the Preparation of the Environmental Impact Assessment Report.

European Commission (2022), Revision of the Ambient Air Quality Directives.

https://environment.ec.europa.eu/topics/air/air-quality/revision-ambient-air-quality-directives_en

European Union (1996). Directive 1996/62/EC. European Parliament and European Council.

European Environment Agency (2022) Air Quality in Europe - 2022 Report. EEA.

Government of Ireland (2011) Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) as amended by the Air Quality Standards (Amendments).

Government of Ireland (2016) Arsenic, Cadmium, Mercury, Nickel and Polycyclic Aromatic Hydrocarbons in Ambient Air Regulations, 2016 (S.I. 659 2016).

Government of Ireland (2004) Ozone in Ambient Air Regulations 2004 (S.I. No. 53 of 2004).

Government of Ireland (2002) Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002).



Government of Ireland (1999) Ambient Air Quality Assessment and Management Regulations 1999 (S.I. No. 33 of 1999).

Government of Ireland (1999) Environmental Protection Agency Act 1992 (Ambient Air Quality Assessment and Management) Regulations 1999.

The Institute of Air Quality Management (2024) Guidance on the assessment of dust from demolition and construction. https://iaqm.co.uk/wp-content/uploads/2013/02/Construction-Dust-Guidance-Jan-2024.pdf

National Road Authority (NRA) (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes

Oosterhuis and Skinner (2004) The Fourth Air Quality Daughter Directive: Impacts and Consequences of Mandatory Limit Values. IEEP Brief number 03/2000.

Rialtas na Eireann (2023) Clean Air Strategy for Ireland https://www.gov.ie/en/publication/927e0-clean-air-

<u>strategy</u>/#:~:text=The%20Clean%20Air%20Strategy%20provides,delivering%20on%20wider%20national%20 objectives>

Transport Infrastructure Ireland (2022) Air Quality Assessment of Specified Infrastructure Projects – Overarching Technical Documentation PE-ENV-01106.

Transport Infrastructure Ireland (2022) Air Quality Assessment of Proposed National Roads – Standard PE-ENV-01107.

Transport Infrastructure Ireland (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes.

Transport Infrastructure Ireland (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes

UK Department of Environment Food and Rural Affairs (DEFRA) (2016) Part IV of the Environment Act 1995: Local Air Quality Management Technical Guidance (TG16)

UK Highways Agency (UKHA) (2019) Design Manual for Roads and Bridges (DMRB) – LA 105 Air Quality

World Health Organization (WHO) (2005) Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulphur Dioxide Global Update 2005.



Climate

Carlow County Council (2022). Carlow County Development Plan 2022-2028.

Carlow County Council (2023) Carlow County Council Climate Action Plan 2024-2029

Climate Change Advisory Council Annual Review 2023 https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR-2023-FINAL%20Compressed%20web.pdf

Climate Change Performance Index (CCPI) (2023) Climate Change Performance Index 2024. https://ccpi.org/download/climate-change-performance-index-2024/

Climate Change Performance Index (CCPI) (2022) 2023 Results: Climate Mitigation Efforts of 57 Countries plus the EU. Covering 90% of the Global Greenhouse Gas Emissions. www.ccpi.org

Department of Communications, Climate Action and Environment (2021). Climate Action and Low Carbon Development (Amendment) Act 2021.

Department of Communications, Climate Action and Environment (2021) Climate Action Plan (CAP).

Department of Communications, Climate Action and Environment (2018). Sustainable Development Goals National Implementation Plan 2018-2020.

Department of Communications, Climate Action and Environment (2015). Climate Action and Low Carbon Development Act 2015.

Department of Environment, Climate and Communications (2023) Climate Action Plan 2024.

Department of Environment, Climate and Communications (2022). Climate Action Plan 2023.

Department of Environment, Climate and Communications (May 2022). Draft of the Second National Implementation Plan for the SDG Goals 2022-2024.

Department of the Environment, Heritage and Local Government (2007) National Climate Change Strategy 2007 – 2012. Stationery Office, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities (Revised). Stationery Office, Dublin.

Department of Climate Change, Action & Environment. Renewable Energy Action Plan (NREA) Submitted under Article 4 of Directive 2009/28/EC.

Department of Climate Change, Action & Environment National Energy Efficiency Action Plan (NEEAP).

Department of the Taoiseach (2020). Programme for Government: Our Shared Future.

Doddy Clarke, E, Sweeney, C, McDermott, F, et al. Climate change impacts on wind energy generation in Ireland. Wind Energy. 2021; 1-13. DOI: 10.1002/we.2673

EirGrid, Enduring Connection Policy 2.3 Constraints Report for Area H2 Solar and Wind (December 2022). Available at: https://cms.eirgrid.ie/sites/default/files/publications/ECP-2.3-Solar-and-Wind-Constraints-Report-Results-for-Area-H2-v1.0.pdf

Environmental Protection Agency (2022) Ireland's Greenhouse Gas Emissions Projections 2022-2040.



Environmental Protection Agency (2023) Ireland's National Inventory Report 2023, Greenhouse Gas Emissions 1990-2021

Environmental Protection Agency (June 2022) Ireland's Greenhouse Gas Emissions Projections 2021-. 73/05/2024 2040. EPA, Ireland.

European Commission (2023) COP28 Climate Change Conference. Available at: https://www.cop28.com/en/

European Commission (2022) COP27 Climate Change Conference. Available at: https://cop27.eg/#/

European Commission (2019) COP25 Climate Change Conference. Available at: https://ec.europa.eu/clima/events/cop25-climate-change-conference_en

European Commission (2019) European Green Deal – European Climate Law, 2021.

European Commission (2015). COP21 Paris Agreement. Available at: https://ec.europa.eu/clima/policies/international/negotiations/paris_en

European Commission, Directorate-General for Environment, Guidance on integrating climate change and biodiversity into environmental impact assessment -, Publications Office, 2013, https://data.europa.eu/doi/10.2779/11735

European Commission (2010) Europe 2020 Strategy A European strategy for smart, sustainable and inclusive growth. Brussels.

European Union (2014). Directive 2014/52/EU of 16 April 2014 on the assessment of the effects of certain public and private projects on the environment.

European Union (2014) 2030 Climate and Energy Policy Framework

IPCC, 2010. Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties,

https://www.ipcc.ch/site/assets/uploads/2017/08/AR5_Uncertainty_Guidance_Note.pdf - Accessed April 2021>

Kilkenny County Council (2021), Kilkenny City and County Draft Development Plan 2021-2027

Kilkenny County Council (2023) Draft Kilkenny Couty Council Climate Action Plan 2024-2029

Met Éireann www.met.ie

Nolan, P., and J. Flanagan, 2020: High-Resolution Climate Projections for Ireland – a Multi-model Ensemble Approach. Environmental Protection Agency. https://www.epa.ie/publications/research/climate-change/Research_Report_339_Part1.pdf

Scottish Government (2008). Calculating Carbon Savings from Wind Farms on Scottish Peat Lands

Sustainable Energy Authority Ireland (SEAI) Energy in Ireland 2022 Report. December 2022. https://www.seai.ie/publications/Energy-in-Ireland-2022.pdf

TII Air Quality Assessment of Proposed National Roads - Standard PE-ENV-01107. December 2022. (TII 2022a) https://www.tiipublications.ie/library/PE-ENV-01107-01.pdf

TII Climate Assessment of Proposed National Roads - Standard PE-ENV-01105. December 2022 (TII 2022b) https://www.tiipublications.ie/library/PE-ENV-01105-01.pdf



TII Climate Guidance for National Roads, Light Rail, and Rural Cycleways (Offline & Greenways) - Overarching Technical Document – Overarching Technical Document PE-ENV-01104. December 2022 (TII 2022c) https://www.tiipublications.ie/library/PE-ENV-01104-01.pdf

TII Carbon Tool for Road and Light Rail Projects: User Guidance Document. GE-ENV-01106. December 2022. (TII, 2022d) https://www.tiipublications.ie/library/GE-ENV-01106-01.pdf

TII Carbon Tool for Road and Light Rail Projects: User Guidance Document. GE-ENV-01106. December 2022. https://www.tiipublications.ie/library/GE-ENV-01106-01.pdf

TII (2020) TII Carbon Assessment Tool (Version 2).

UNFCCC (1997) Kyoto Protocol to the United Nations Framework Convention on Climate Change adopted at COP3 in Kyoto, Japan, on 11 December 1997

UNFCCC (2012) Doha Climate Change Conference United Nations Framework Convention on Climate Change

United Nations (2023). The Sustainable Development Goals Report 20223

United Nations (2015) Transforming our World: the 2030 Agenda for Sustainable Development. Available at: https://sustainabledevelopment.un.org/sdgs

United Nations (2012). Doha Amendment to the Kyoto Protocol. United Nations Framework Convention on Climate Change.

United Nations (1998). Kyoto Protocol to the United Nations Framework Convention on Climate Change. United Nations Framework Convention on Climate Change, Bonn.

Wiser, R., Z. Yang, M. Hand, O. Hohmeyer, D. Infi eld, P. H. Jensen, V. Nikolaev, M. O'Malley, G. Sinden, A. Zervos, 2011: Wind Energy. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation [O. Edenhofer, R. Pichs-Madruga, Y. Sokona, K. Seyboth, P. Matschoss, S. Kadner, T. Zwickel, P. Eickemeier, G. Hansen, S. Schlömer, C. von Stechow (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.



Noise and Vibration

BSI (2008). BS 5228:2009+A1:2014. Code of practice for noise and vibration control on construction and open sites.

Department of Environment, Heritage and Local Government Wind Energy Development Guidelines 2006 (DoEHLG 2006 – also known as WEDG 2006). https://www.gov.ie/en/publication/f449e-windenergy-development-guidelines-2006/. Wind Energy Development Guidelines. [Online] 2006.

IOA (2013). A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise'. UK: Institute of Acoustics.

ISO (1996). ISO 9613-2:1996 Acoustics – Attenuation of Sound during Propagation Outdoors: Part 2 – General Method of Calculation. Geneva: International Organization for Standardisation.

The Working Group on Noise from Wind Turbines (NWG) (1996). ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms'. UK: Energy Technology Support Unit

(OEE), Environmental Protection Agency Office of Environmental Enforcement. Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Ireland (NG4). https://www.epa.ie/publications/monitoring-assessment/noise/NG4-Guidance-Note-(January-2016-Update).pdf. [Online] 01 2016. [Cited: 01 02 2022.]

Association of Acoustic Consultant of Ireland, 2021. 'Environmental Noise Guidance for Local Authority Planning & Enforcement Departments.

The Environmental Protection Agency. (2022) 'Guidelines on the information to be contained in Environmental Impact Assessment Reports'

Mackay, J, Singleton, J, Reid, M, Cand, M, Mahon, J, McKenzie, A, Keaney, D, Hayes, M, Bowdler, D, Kelly, D, Jiggins, M, Irvine, G & Lester, M, 2020. Public consultation on the revised wind energy development guidelines: Joint consultation response. Available at: https://www.tneigroup.com/news_event/tnei-submit-joint-consultation-response-and-meet-with-government-regarding-proposed-updates-to-the-irish-wind-farm-noise-guidelines-wedg/

World Health Organisation (2018) Environmental Noise Guidelines for the European Region'

British Standard BS7385-2: 1993 'The Evaluation and measurement for vibration in buildings. Guide to damage levels from groundborne vibration'

British Standard BS6472: 2008 'Guide to evaluation of human exposure to vibration in buildings. Blast-induced vibration'



Archaeological and Cultural Heritage

Allen, F.H.A. et al., 1997, Atlas of the Irish Rural Landscape. Cork University Press, Cork.

Architectural Heritage Guidelines for Planning Authorities (2011)

Department of Arts, Heritage, Gaeltacht and the Islands, 1999, Framework and Principles for the Protection of the Archaeological Heritage, 1999.

Guidance on Setting and the Historic Environment, Historic Environment Division, February 2018.

Other Sources

Sites and Monuments Record, Co. Carlow

Sites and Monuments Record, Co. Kilkenny

 $1^{\rm st}$ and $2^{\rm nd}$ Edition 6-inch OS maps

www.webgis.archaeology.ie/historicenvironment

www.excavations.ie

www.buildingsofireland.ie

www.logainm.ie



Landscape and Visual

Carlow County Council - add CCDP

Carlow County Council - add Volume VI of CCDP

Department of Arts, Heritage and the Gaeltacht (DAHG), 2015. National Landscape Strategy 2015–2025, 40 pp.

Department of Planning, Housing and Local Government (DoPHLG), 2019. Draft Revised Wind Energy Development Guidelines (WEDGs), 223 pp.

Department of the Environment, Heritage and Local Government (DoEHLG), 2000. Landscape and Landscape Assessment: Consultation Draft of Guidelines for Planning Authorities, 17 pp.

Department of the Environment, Heritage and Local Government (DoEHLG), 2006. Wind Energy Development Guidelines for Planning Authorities (WEDGs), 119 pp.

Environmental Protection Agency of Ireland (EPA), 2022. Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, 90 pp.

Kildare County Council - add KECDP

Kilkenny County Council - add KKCDP

Laois County Council - add LCDP

Landscape Institute, 2019. Visual Representation of Development Proposals: Landscape Institute Technical Guidance Note (LI TGN) 06/19, 60 pp.

Landscape Institute & Institute of Environmental Management and Assessment UK (LI & IEMA), 2013. Guidelines for Landscape and Visual Impact Assessment, Third Edition (GLVIA3), 179 pp.

NatureScot, 2021. Guidance: Assessing the Cumulative Impact of Onshore Wind Energy Developments, includes methodology published in 2012; available online at: https://www.nature.scot/doc/guidance-assessing-cumulative-landscape-and-visual-impact-onshore-wind-energy-developments.

Scottish Natural Heritage (SNH), 2002. Visual Assessment of Wind Farms: Best Practice, 79 pp.

Scottish Natural Heritage (SNH), 2014. Visual Representation of Wind Farms: Version 2 (SNH Guidance v.2), 54 pp.

Scottish Natural Heritage (SNH), 2015. Spatial Planning for Onshore Wind Turbines: Natural Heritage Considerations, 21 pp.

Scottish Natural Heritage (SNH), 2017. Siting and Designing Wind Farms in the Landscape, Version 3a (SNH Guidance v.3a), 50 pp.

Scottish Natural Heritage (SNH), 2017. Visual Representation of Wind Farms: Version 2.2 (SNH Guidance v.2.2), 53 pp.



Material Assets

Department of Housing, Planning and Local Government (August 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. DHPLG, Dublin.

Department of Housing, Planning and Local Government (December 2019) Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development (June 2016) Review of the Wind Energy Development (June 2017) Review (June

Department of the Environment, Community and Local Government (2013). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. DoEHLG, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities. DoEHLG, Dublin.

Department of Transport, Tourism and Sport. (2019). Traffic Signs Manual, Section 8 – Temporary Traffic Measures and Signs for Road Works

Department of Transport, Tourism and Sport (2010) Guidance for the Control and Management of Traffic at Roadworks.

European Commission (2017): Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report;

Environmental Protection Agency (EPA) (2022) Guidelines on the Information to be contained in Environmental Impact Assessment Reports.

Environmental Protection Agency. Corine Land Cover Maps.

Irish Wind Energy Association (2012) Best Practice Guidelines for the Irish Wind Energy Industry.

National Roads Authority (2007). Traffic and Transport Assessment Guidelines. NRA, Dublin.

National Roads Authority (2011) NRA TD 41-42/11 Geometric Design of Major/Minor Priority Junctions and Vehicular Access to National Roads. NRA, Dublin.

National Roads Authority (2011) Project Appraisal Guidelines, Unit 5.5 Link Based Traffic Growth Forecasting. NRA, Dublin.

TII (May 2019) Project Appraisal Guidelines, Unit 5.3, Travel Demand Projections PE-PAG-02017. Transport Infrastructure Ireland.

TII (April 2017) DN-GEO-03060, Geometric Design of junctions. Transport Infrastructure Ireland.

TII (April 2017) DN-GEO-03031, Rural Road Link Design. Transport Infrastructure Ireland.

TII (2013) The Design Manual for Roads and Bridges ('DMRB'), Transport Infrastructure Ireland.

TII (May 2014) Traffic and Transport Assessment Guidelines PE-PDV-02045. Transport Infrastructure Ireland.

TII Automatic Traffic Count Data (on the M6)



Major Accidents and Natural Disasters

Carlow County Development Plan 2022- 2028

Carlow County Major Emergency Response Plan (2020)

Central Statistics Office Ireland. Census of Ireland.

Department of Defence (2020). A National Risk Assessment for Ireland.

Department of Environment, Heritage and Local Government (2010). A Guide to Risk Assessment in Major Emergency Management.

Department of Transport (2010). Guidance for the Control and Management of Traffic at Roadworks – Second Edition.

Southern Regional Assembly (2020). Regional Spatial and Economic Strategy (RSES).

Southern Regional Assembly (2010). Regional Planning Guidelines for the Southern Region 2010-2022.

Environmental Protection Agency (May 2022): Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. EPA, Wexford.

Environmental Protect Agency (2014). Guidance on Assessing and Costing Environmental Liabilities.

European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report.

European Union (2014). Directive 2014/52/EU. European Parliament and European Council.

European Union (2011). Directive 2011/92/EU. European Parliament and European Council.

Fáilte Ireland. Available at https://www.failteireland.ie/

Fire and Emergency Operations Plan 2022-2026 - Kilkenny County Council Fire and Rescue Service (2022) Kilkenny County Council

Irish National Seismic Network. Available at https://www.insn.ie/

Irish Statute Book (2005). Safety, Health and Welfare at Work Act 2005 (S.I. No. 10 of 2005).

Irish Statute Book (2000). The European Communities Control of Major Accident Hazards Involving Dangerous Substance Regulations. (S.I. No. 476 of 2000).

Kilkenny County Development Plan 2021-2027

Accesement in Major