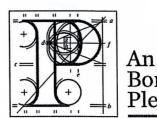
Our Case Number: ABP-312606-22





Clare Glanville Geological Survey Ireland Beggars Bush Haddington Road Dublin D04K7X4

Date: 8th April 2022

Re: Wind farm development of 20 turbines with 110kV electrical substation and all related site works

and ancillary development.

Townlands of Annagannihy, Aughinida, Ballynagree East, Ballynagree West, Bawnmore, Caherbaroul, Carrigagulla, Carrigduff, Clonavrick, Derryroe, Drishane More, Dromagh,

Drominahilla, Dromskehy and other townlands, Co. Cork.

Dear Madam,

An Bord Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Board will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of Cork County Council and at the offices of An Bord Pleanála when they have been processed by the Board.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Board.

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Kieran Somers / Executive Officer

Direct Line: 01-873 7250

**PA09** 

### **Shaun McGee**

From:

Bord

Sent:

Thursday 24 March 2022 09:35

To:

SIDS

Subject:

FW: EIS 22/22 - Planning Application for Ballinagree Wind Farm Development, Co

Cork

**Attachments:** 

22 22 Ballinagree Wind Farm Development Co Cork pdf, GSI datasets relevant to

EIA & SEA\_20210421.pdf

Follow Up Flag:

Follow up

Flag Status:

Completed

**FYI** 

From: GSI Planning <GSIPlanning@GSI.ie> Sent: Thursday, March 24, 2022 9:23 AM

To: Bord <bord@pleanala.ie>

Cc: GSI Planning <GSIPlanning@GSI.ie>; Clare Glanville <Clare.Glanville@decc.gov.ie>; Trish Smullen

<Trish.Smullen@gsi.ie>; Erin Leahy <erin.leahy@gsi.ie>

Subject: RE: EIS 22/22 - Planning Application for Ballinagree Wind Farm Development, Co Cork

Dear Sir/Madam,

With reference to the email from Fehily Timoney & Co dated 27<sup>th</sup> January 2022, concerning the planning application for Ballinagree Wind Farm Development, Co Cork, to An Bord Pleanála, please find attached response and dataset sheet from Geological Survey Ireland.

If you have any further queries or if we can be of further assistance, please do not hesitate to contact me, Erin Leahy, or my colleagues, Clare Glanville and Trish Smullen, at GSIPlanning@gsi.ie.

Yours sincerely,

Erin Leahy

Geological Survey Ireland

From: GSI Planning

Sent: 01 February 2022 09:46

To: Clare Glanville; Sophie O'Connor; Brian McConnell; Monica Lee; Taly Hunter Williams; Sean Cullen; Charise

McKeon; Jim Hodgson; Eoin McGrath; Trish Smullen

Cc: GSI Planning

Subject: EIS 22/22 - Planning Application for Ballinagree Wind Farm Development, Co Cork

EIS 22/22

Planning Application for Ballinagree Wind Farm Development, Co Cork. Request for observations by Fehily Timoney & Co to be forwarded to An Bord Pleanála by 25 March 2022. Letter is enclosed. Further information available on the project <u>website</u>.

Regards,

John

From: Duty Geologist

Sent: 31 January 2022 16:27

To: GSI Planning

Subject: Fw: Document Issue No. 67 - P2114\_Ballinagree Wind DAC

From: Jennifer O'Hanlon (Fehily Timoney and Company (Cork)) < jennifer.ohanlon@ftco.ie>

Sent: 27 January 2022 18:14

To: Duty Geologist

Subject: Document Issue No. 67 - P2114\_Ballinagree Wind DAC

**CAUTION:** This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

# P2114 - Ballinagree Wind Farm EIAR Issue 67

Issued by: Jennifer O'Hanlon (Fehily Timoney and Company)

On: 27 Jan 2022

Dear Sir.

We refer to the attached planning application.

An Bord Pleanala require that we consult you directly as a prescribed body.

The attachment is a transmittal. We recommend you save the PDF to your PC as the link is finite.

Please confirm receipt.

Kind Regards

Jennifer O'Hanlon for Eamon Hutton, Senior Project Planner for and on behalf of Fehily Timoney and Company

#### Access the documents for this issue

#### Recipients:

Trevor Byrne (Fehily Timoney and Company (Cork))
Eamon Hutton (Fehily Timoney and Company (Cork))
Jennifer O'Hanlon (Fehily Timoney and Company (Cork))
Minister for Environment Department of Environment (Department of Environment, Climate and Communications (Head Office))

## Jennifer O'Hanlon Administrator

**Fehily Timoney and Company** 

Core House Pouladuff Road Cork Ireland T12 D773

Tel: 021 4969573

www.fehilytimoney.ie

Please consider the environment - do you really need to print this email?

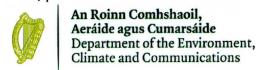
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Tá eolas sa teachtaireacht leictreonach seo (agus b'fhéidir sa chomhaid ceangailte leis) a d'fhéadfadh bheith príobháideach nó faoi rún. Is le h-aghaidh an duine/na ndaoine nó le h-aghaidh an aonáin atá ainmnithe thuas agus le haghaidh an duine/na ndaoine sin amháin atá an t-eolas. Murab ionann tusa agus an té a bhfuil an teachtaireacht ceaptha dó bíodh a fhios agat nach gceadaítear nochtadh, cóipeáil, scaipeadh nó úsáid an eolais agus/nó an chomhaid seo. Más trí earráid a fuair tú an teachtaireacht leictreonach seo cuir, más é do thoil é, an té ar sheol an teachtaireacht ar an eolas láithreach. Deimhnítear leis seo freisin nár aims odh víreas sa phost seo tar éis a scanadh.



An Bord Pleanála 64 Marlborough St, Dublin 1, D01 V902



24 March 2022

Re: Planning Application for a Wind Farm Development (and all associated works) within the townlands of Annagannihy, Aughinida, Ballynagree East, Ballynagree West, Bawnmore, Caherbaroul, Carrigagulla, Carrigduff, Clonavrick, Derryroe, Drishane More, Dromagh, Drominahilla, Dromskehy, Finnanfield, Inchamay South, Kilberrihert, Knocknagappul, Rahalisk and Tullig, Co. Cork.

Fehily Timoney and Company Ref: P2114/Lett/EH/JOH Our Ref: 22/22 [c.f.20/241]

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our <u>website</u> for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to the email from Fehily Timoney and Company received on the 01 February 2022, concerning the Ballinagree wind energy development Co Cork, Geological Survey Ireland would encourage use of and reference to our datasets. Please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets of particular relevance to the proposed development.

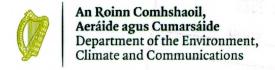
Following on from our response to Fehily Timoney and Company in July 2021, (20/241 pdf attached) which will be of relevance to your own assessment, we are pleased to see use of our Geoheritage, Quaternary, Bedrock, Groundwater Vulnerability, Wells and Springs, Aquifer, Aggregates, Quarries, Minerals and Landside Susceptibility maps and datasets within the EIAR.

#### Geochemistry of soils, surface waters and sediments

Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at <a href="https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx">https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx</a>. This page also hosts Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and lithogeochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture (Terra Soil), waste soil characterisation (Geochemically Appropriate Levels for Soil Recovery Facilities) and mineral exploration (Mineral Prospectivity Mapping).

#### **Other Comments**

Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any further site investigations carried out. Should any significant bedrock cuttings be created, we would ask that they will be designed to remain visible as rock exposure rather than covered with soil and vegetated, in accordance with safety guidelines and engineering constraints. In areas where natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface and could be included as additional sites of the geoheritage dataset, if appropriate. Alternatively, we ask that a digital photographic record of significant new excavations could be provided. Potential visits from Geological Survey Ireland to personally document exposures could also be arranged.





The data would be added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at <a href="mailto:GeologicalMappingInfo@gsi.ie">mailto:GeologicalMappingInfo@gsi.ie</a>, 01-678 2795.

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at <a href="mailto:GSIPlanning@gsi.ie">GSIPlanning@gsi.ie</a>.

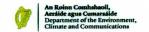
Yours sincerely,

Clare Glanville
Senior Geologist

Clarejill.

**Geological Survey Ireland** 

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.





#### Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018)

Seological Survey Ireland	Dataset	Relevant EIA Topic	Coverage	Description / Notes / Limitations	Link to Geological Survey Ireland map viewer
Programme					
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c
				Provide information of historic flooding, both surface water and groundwater. (A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the	
Geohazards	Groundwater Flooding (Historic)	Water	Regional	future]	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
				Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
Geohazards	Groundwater Flooding (Predictive)	Water	Regional National	[maps]	http://www.epa.ie/radiation/radonmap/
Geohazards	Radon Map	Land & Soils/Air	National		III.D.//www.epa.ie/radiation/radonniap/
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Pla	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping					https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National National	1:50,000 scale 1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	Inc.ps.//deem.maps.arcgis.com/apps/massapprienci/massantimine
				Broad-scale physical landscape units mapped at 1:100,000 scale in order	
Geological Mapping	Physiographic units:	Land & Soils	National	to be represented as a cartographic digital map at 1:250,000 scale	https://dcenr.maps.arcgls.com/apps/webappviewer/index.html?id=afa76a420fc54877843aca1bc075c62b
Ocological Happing	Thysographic units:				
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	Includes 3D models	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093b6b2212a850ce6&scale=0
		Land & Soils	National	Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a2718be1873d47a585a3f0415b4a724c
Geological Mapping	Geotechnical database  Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	land & Soils/Water	National	available online	https://secure.dccae.gov.ie/goldmine/index.html
Goldmine	Historical data sets including geological memoirs and 6 to 1 mile geological mapping records	land & Sonsy Water	National		
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale  Data limited to 1:40,000 scale; sites should be investigated at local scale;	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater recharge.	Water	National	long term annual average recharge	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
					https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale  Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for	
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	private supplies.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
				Data is limited to scale of 1:40,000. Data does not include all of the source	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National National	protections areas	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Catchment and WFD management units.	Water	Ivational	For areas underlain by limestone, includes karst features, tracer test	
Groundwater & Geothermal	karst specific data layers	water	National	database; turlough water levels (gwlevel.ie).	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
			National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations	https://www.gsi.le/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding- ireland-groundwater/Pages/Groundwater-bodies.aspx
Groundwater & Geothermal	Groundwater body Descriptions	Water		Also, Roadmap for a Policy and Regulatory Framework for Geothermal	
Groundwater & Geothermal	Geothermal Suitability maps	land & Soils/Water	National	Energy, November 2020	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9ee46bee08de41278b90a991d60c0b9e https://secure.dccae.gov.le/GSI/INFOMAR_VIEWER/
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		http://www.cherishproject.eu/en/
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headle	water	Regional	Currently the project is being carried out on the east coast and will be	https://www.gsi.le/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water /Land & Soils	Regional	rolled out nationally	Index.aspx
Marine & Coastal Unit	Locates vunicialism, midex (LVI).	, , , , , , , , , , , , , , , , , , , ,		Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental	
Minerals	Aggregate potential	Land & Soils/Material Assets	National	assessment process	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
Minerals	Active quarries	Land & Soils	National		https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
				Inventory and Risk Classification 2009. Environmental Protection Agency,	https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:LEMA_Facilities_Extractive_Facilities_ https://www.epa.ie/enforcement/mines/
Minerals	Historic mines	Land & Soils/Cultural Heritage	National Regional	Economic Minerals Division and Geological Survey Ireland (DECC).  A national mapping programme	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water  Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme  A national mapping programme	https://dcepr.maps.arceis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus Tellus	urban geochemistry mapping (Dublin SURGE project),	Land & Soils	Regional		https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754

- 1. The maps and data listed above are available on the Geological Survey Ireland map viewer https://www.gsl.ie/en-ie/data-and-maps/Pages/default.aspx
  2. Please read all disclaimers carefully when using Geological Survey Ireland data
  3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.