Our Case Number: ABP-318701-23

An Bord Pleanála

Kevin Loftus
Keerglen
Ballycastle
Co. Mayo
F26DD53

Date: 26 February 2024

Re: 10 year planning permission for the proposed wind energy development consisting of 22 wind turbines and all associated infrastructure
located in the townlands of Glenora, Altderg, Keerglen, Ballykinlettragh, Ballycastle, Ballyglass, Killeena, Glencullin and Lugnalettin, Co. Mayo. (www.glenorawfplanning.com)

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter. Please accept this letter as a receipt for the fee of €50 that you have paid.

The Board will revert to you in due course with regard to the 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 the local authority 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,

Lauren Murphy
Executive Officer
Direct Line: 01-8737275

PA04

Teil	**Tel**	(01) 858 8100
Glao Áitiúil	**LoCall**	1800 275 175
Facs	**Fax**	(01) 872 2684
Láithreán Gréasáin	**Website**	www.pleanala.ie
Ríomhphost	**Email**	bord@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

To : An Bord Pleanala

Re: Submission on the Glenora Windfarm , Case Reference: PA16-318701

From: Kevin Loftus, Keerglen, Ballycastle, Co Mayo. F26 DD 53

Date : 18/02/2016

I wish to make the following observations on Case Reference, PA16-318701- Glenora Windfarm Ballycastle, Co Mayo.

My concerns relate to the proposal by SSE Electricity and Future energy Ireland to construct a wind farm on Coillte lands at Glenora, Ballycastle, Co Mayo. The proposal includes the construction of 22 wind turbines within the townlands of Glenora, Keerglen, Ballykinlettragh, Altdearg and Lugnalettin.

My Submission is as follows:

1)No planning notices were erected in Ballinglen especially on entry points along both roads entering into the town lands of Keerglen and Ballykinletragh which are burdened with the proposed development. I consider this a breach of planning requirements on the part of the developer to provide adequate notification to locals regarding the development especially in an area that will be greatly impacted by this proposed development were it to go ahead. The nearest planning notifications roadside are at Ballyglass, Ballycastle, Co Mayo which is 9km away.

2)A previous application by Airtricity Developments (Ireland) Ltd & Coillte Teoranta was made to Mayo County Council on the 11/06/2003(File number 031383). The development description was to Construct wind farm consisting of 29 wind turbines (max hub height of 65m and max blade diameter 80m,with a total height not exceeding 100m), a 110 kv sub station including pylon and control building, one 65m high meteorological mast, construction and upgrading of site entrances, site tracks and associate works.

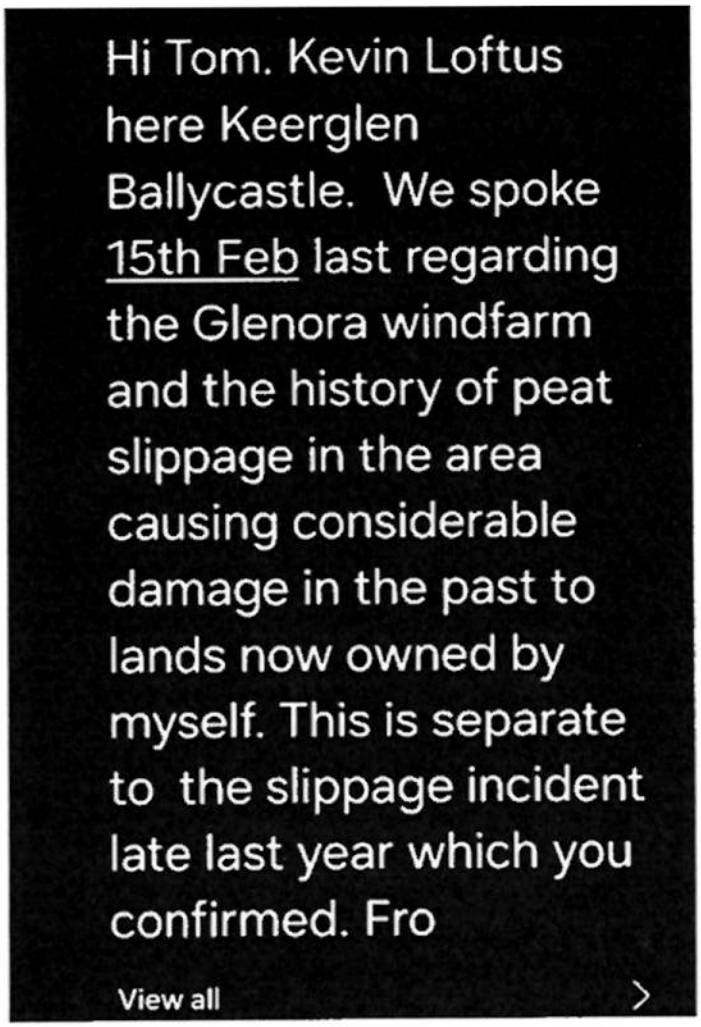
The application was refused 17/02/2004 . Among the reasons for refusal included potential impact on visual amenity in the area, water quality and ground conditions (peat stability) of the area all of which remain very relevant particularly with the increased scale of the current proposal in terms of turbine height, scale of proposed

excavation works and the ongoing issues relating to peat stability in this highly volatile area which are continuous.

3) Peat slippage is known to happen locally in this area and was correctly identified as a reason by Mayo County Council in 2003 when refusing the previous application (Ref: 031383). A slippage event/bog burst also occurred within the Glenora boundary as late as Nov 2022 with Feehily Timoney and Co confirming same as a 'peat slide with a failure plane at the base of the peat , likely triggered by heavy rainfall' which contributes to many flash floods in this area. It should be noted that this slippage event over a considerable area(20m x 150m) does not appear to have been recorded by GSI Ireland on their maps and it is unclear if it has been reported to them for the purpose of recording for official records or to be viewed on their site. Ft state that their engineer's carried out an inspection of the failure in 2023. While it is noted that FT state that there was no discharge into watercourses there appears to have been no further environmental input sought from relevant agencies such as Inland Fisheries , EPA etc to monitor fallout from the event which they verify occurred the previous November.

There have also been a number of other known and documented slippage events in the area at Cluddaun,Shannettra, Clydagh Bog(GSI_LS11-002 (1 KM FROM Glenora site boundary), Shraglagga, Behy/Glenosra and more importantly Keerglen (GSI REF NO: MA013-006) in 1954 and Glenora itself Nov 2022. The developer claim in their planning submission that the Keerglen bog burst occurred 1km from their proposed development. An Bord Pleannala should satisfy itself as to the exact location and proximity of the bog burst to the proposed development as local knowledge considers it at least adjacent to the site of the proposed development. An Bord Pleannala should also satisfy itself as to the slope this bog burst occurred at.

As a property owner who own lands on both sides of Keerglen river I am very concerned regarding this project and the possibility of damage to our property especially after the "bog burst" in 1954 . I brought this to the attention of the developer but regrettably they have not engaged with me in any great detail. Below to the left is part text message to Mr Tom Coleman SSE on the 18/08/23.Below right is the full message in print form. There has been no reply or direct contact from SSE since which demonstrates a lack of community engagement on their part in this matter.



Hi Tom. Kevin Loftus here Keerglen Ballycastle. We spoke 15th Feb last regarding the Glenora windfarm and the history of peat slippage in the area causing considerable damage in the past to lands now owned by myself. This is separate to the slippage incident late last year which you confirmed. From our conversation you mentioned ye (Sse) were engaging a Waterford based consultancy firm with expertise in the area of peat preservation etc to survey the site. You said you would get back to me in April. Just wondering what is the current update as I am very concerned with the risk posed to my property given the well known volatile nature of the area of the proposed development. Tks.

Above is part screenshot of text message 18/08/2023 to Project Manager Tom Coleman and the full text is printed underneath. No reply was received to this text message.

In the planning application itself the above bog burst event at Keerglen is mentioned as occurring sometime in the 1950's. Its extent and the effect locally it had is not addressed and indeed appears to be minimised in the planning application. There were no consultations carried out locally with landowners by the developers to establish the effects on local property, rivers or the extent of the actual slippage which travelled 10km all the way to the sea at Ballycastle. The Keerglen bog burst occurred in late 1954 without any warning as per local knowledge. The bog burst could be heard in advance by locals as it came travelling at considerable speed

down Keerglen River valley from Keerglen/Glenora and all the way via Ballinglen River valley to the sea at Bunatrahir bay at Ballycastle. It entered a considerable distance onto lands along the way depositing peat and vegetation and swept away footbridges which had been constructed sufficiently high enough previously to avoid flooding (one of those was 3.5km from the site of slippage). At almost 5km away from the site the bog burst broke through onto the first flat plain of flat lands which Keerglen river meets at a sharp right angle on it's journey to the estuary at Ballycastle. Those lands are owned now by myself having been inherited from family. This is at a point where Keerglen River takes a sharp right . Peat was deposited on those lands and that of neighbours before it was eventually removed in subsequent years when it was saved as turf. A barrier wall/fence was erected on the lands and is maintained to this day to prevent the lands being flooded but it is not of a structure that will withstand a future bog burst . The below article from **The Western People** newspaper in **February 1955** aptly titled **"a freak eruption"** clearly illustrates the extent of the bog burst and the effect it had on landowners property, the local environment and the hydrology of the area with specific mention to fish stocks in this salmonoid river. **It also illustrates why this area should never have been zoned or open to consideration for industrial development in any shape or form.**

Freak Eruption

KILLS FISH—MAKES LAND USELESS— IN BALLYCASTLE

"A MOST STRANGE PHENOMENON." Says Co. Councillor

DEPT. OF LANDS AND FISHERIES HELP SOUGHT

A freak eruption, which caused a river to overflow and left salmon and white trout strewn—dead—for a quarter of a mile from the river bank was described by Mr. George Egan, Co C at Mayo Co Agricultural Committee meeting in Castlebar on Saturday last.

Mr. Egan was speaking of the Ballingle area, Ballycastle, where he said "a most strange phenomenon occurred" during the week's heavy rain which caused untold damage to arable land.

Said Mr. Egan: "A landslide in the ordinary way we all can understand but this was a most peculiar occurrence. Mud and bog was flung over a large area and thrown into the Ballinglen river. It carried it for miles choked all the salmon and white trout and everything in the river, and threw them up for a quarter of a mile in on the land. But the worst thing of all was the covering by bog and mud of arable land, which was never in its history covered by anything but good soil. It seemed to be a strange eruption which boiled up and overflowed down the side of the mountain and into the river causing it to burst its banks."

He added that it would have been more serious if the tide was coming in.

Committee members were at a loss to give a reason for the eruption but were unanimously behind Mr. Egan's proposal to ask the Dept. for Lands and Fisheries to come to the aid of the affected people, whose lands had been rendered useless for the time being and to re-stock the famed fishing river with fry.

NOTED BALLYHAUNIS MAN

Please Note: For the benefit of readers and clarification the above article is printed in its entirety at Appendix one at the end of this submission.

The above article outlines the nature of the bog burst/eruption at Keerglen late 1954. It is an event that actually happened without any prior industrial excavation,road construction, blasting, rock breaking disturbance of peat, quarrying or any activities associated with this large scale industrial project as those outlined in the planning application. It is clear that the town lands covered in this application are clearly unsuited to this development and should not be disturbed in anyway that will cause a repeat bog burst/eruption which would on this occasion be of a greater magnitude with regard to the nature and extent of the proposed industrial works. Crucially the area 's of Glenora/Keerglen, Lugnalettin,Ballykinlettragh have since been covered in forestry and the surrounding riverbank areas along Keerglen and Ballinglen Rivers have seen unprecedented growth in vegetation and trees in recent years . A bog burst alone of the magnitude previously experienced in 1954 or worse still with regard to the nature of the proposed development would seriously impact the local environment as the increased vegetation would now clearly be swept downstream causing untold environmental and property damage. There is also potential for damage to bridges on access roads from The main Ballycastle/Crossmolina rd serving the villages of Keerglen (part-off) , Ballykinlettragh and Gurrane along with Ballinglen (known locally as The Farm). It is worth noting that both bridges were re-built in the last century following flash floods having swept them away . Those flash floods originated from the area of the proposed development and also including the adjacent Clydagh catchment area.The source of Keerglen river itself is in the catchment area of the proposed development. In Chapter 16 (Major Accidents and Natural Disaters) when addressing peat stability at 16.3.4 it is stated with regard to locating the turbines and peat depth "The deeper areas were avoided, where possible, when optimising the wind farm layout for site". It goes onto say that the average peat depth at the proposed turbine locations is 1.8m. Avoiding the deeper areas would have the benefit of reducing the amount of peat storage required on site which is in itself a highly questionable process from an environmental perspective and An Bord Pleanala should fully satisfy itself that this process is in keeping with enviromental best practice. I note that the Nov 22 slippage on site occurred at a peat depth between 1.0 to 1.5 metres. The depth of peat is confirmed by FT in chapter 8.3.8 "Land , Soils and Genealogy". The exercise in selecting areas for the placing of turbines where peat depth was in the lower range has proved futile on this site as the Nov 22 peat slippage actually occurred at a lower level. **This shows that regardless of what modelling is applied it is ultimately the level of peat saturation & rainfall that determines everything as it did in Winter 1954 and again in Nov 22 all of which occurred without any industrial interference such as the large scale removal of peat. It is very concerning that all surveys for this project were carried out during the driest months of the year and not during the Winter months when peat saturation especially in this area is at its highest.** An Bord Pleannala should satisfy itself as to the time of year site inspections were carried out and also the methodologies used by the developer to evaluate the risk of peat slippage have taken into account other factors such as vibrations across an

extensive and volatile peat plain from rock breaking, road making and blasting. An Bord Pleannala should also satisfy itself that excavation and removal of large areas of peat does not affect the overall rigidity of the peat plain compromising its ability to maintain its shape across the area and withstand the industrial process's.

4)Chapter 8 : Land Soils and Geology. This survey was carried out by Fehily Timoney and Company (FT).

1. The site investigation by FT was carried out in 2021 and the walkover surveys and geological mapping and peat probing took place in the Summer months of July and August 2021 (CH 8.2.2) and a geotechnical assessment of peat stability took place in Aug 2022 the driest period's of the year. The report does mention that MKO did carry out peat probing again in the summer of 2022 (May 2022) but this was not FK. A desk study was initially undertaken by FT prior to the walk over and reviewed in August 2023 prior to completion of this chapter. The walkover and site studies took place in the driest months of the year with 13 trial pits completed by Irish Drilling Ltd in October 2021 under the supervision of FT. It is clear that trial pits were not completed for each turbine of which there are 22 Proposed (see paragraph 8.2.2) and again the trial pits were undertaken after the Summer months. As the onsite surveys appear to have taken place in the Summer months An Bord Pleanala needs to satisfy itself that the report takes into account the substantial rainfall over the winter months since October 2021. There have been a number of substantial flash floods since October 21 some of which have been localised in this area such as the evening of 07/09/2022 when water levels rose by 3 to 4 feet in Keerglen river inside 30 minutes (Video evidence can be provided)
2. The report has no on site investigations or peat probing during the real Winter months from November to March/April. The Winter months with substantial rainfall is when there is more likely to be a landslide (1954 and 2022).
3. Concerns have already been raised at 8.2.3 of the report by Inland Fisheries who have raised concerns re land slides for the entire area of the site. They have raised concerns re the impact of the direct works will have for land slides by vibration.
4. Concerns have also been raised by Irish Peatland Conservation Council at 8.2.3 . They have stated 'Looking at the Geological Survey of Ireland's landslide events Map it is possible to see that there are a number of historic peat slide events recorded in the area. Also the GSI's landslide susceptibility Map shows that locations for turbines 2,7,11,15,18,20,21,22 are in zones graded to be of a 'Moderately high' chance of a landslide event . The Nov 22 peat slippage occurred near T5 .The proposed turbine location's are a cause for concern and need to be extensively reviewed. The IPCC's stated that it has come to their attention that the current best-practice methods for assessing the probability and/or risk assessments for peat slippage and bog bursts/flows may not be fit for

purpose.They then go on to name recent peat slippages such as Meenagh bog, BoleyBrack mountain and the concern over what caused them.

The concern is well founded and borne out by the landslide in 1954 and again the recent onsite slide in November 2022.There is no evidence that the person who carried out the report for FT worked on sites on which there were known and confirmed landslides. Of immense concern is that the current best-practice guidelines for peat slippage may be out of date. There is no investigation into same. It is respectfully suggested that in an area where there are known and confirmed peat slides no wind farm should be permitted. The finding that there is a low risk of peat instability on the Glenora site based on the assessment carried out is concerning based on past events.The on site survey's were undertaken during the driest periods of the year and does not adequately address the landslide that took place in 1954 and minimises the on-site one in November 2022, the level of rain and flooding since the assessment nor does the report address or take into account the local knowledge of the residents in the area re the site or the landslide and those who recall same and the level of damage and how far it travelled without site excavation. The proposed site and peat disturbance to make roads, erect 22 turbines, turn areas for traffic and construction is highly concerning in this area. It is clearly foreseeable that during the construction and operational phases of the wind farm that there will likely be another landslide and due to the level of peat disturbance it could be catastrophic.

The IPCC state that ' there is a high possibility that if there is a peat slide event that it would affect neighbouring designated sites which would be unacceptable and disastrous. The IPCC then go further and state that 'If there is a possibility of any more damage occurring to the designated sites and ANNEX habitats as a result of this development then the development should not go ahead" This warning cannot be ignored taking into account Ireland's obligations to the EU and the catastrophic effect of the Derrybrine land slide and the cost to the state and the taxpayers of Ireland.

6:Concerns were raised by the HSE re ground stability re construction phase and future stability of ground conditions taking into consideration of extreme weather events, site drainage and the potential for soil erosion. Their concern appears to have been raised prior to the landslide in November 2022.

7:Concerns were also raised by Department of Tourism, Culture, Arts, Gaeltacht, Sports and Media at 8.2.3 again in respect of the peat stability of the site and the concerns re 'potential for significant changes in patterns of surface water flow and may desiccate the peat allowing pathways to open up resulting in subsurface water losses' They refer to the landslides on blanket bog in Shass Mountain, Meenbog. They make no reference to the known peat slide on the Glenora site in November 2022 and it is likely their observation pre-dates same.They raise concerns over climate change predication in respect of rainfall which has proven to be legitimate in light of the substantial rainfall since this report and the recent landslide namely a few

months ago. They further raise concerns re the increased likelihood and magnitude of river flooding. The proposed windfarm drains naturally into Keerglen River which flows into and connect's with the sea at Ballycastle beach. The sheer catastrophy of a landslide if the wind farm proceeds could be catastrophic which could sweep with it volumes of peat, shrubbery, trees, wildlife, habitats along the way destroying and polluting Keerglen river and leading to contamination of the sea. A landslide is clearly foreseeable by all of the above concerned entities and cannot be underestimated. **There is no guarantee given by FT that no landslide will occur and guarantees would need to be given in light of the extensive concerns raised. An Bord Pleannala should satisfy itself that given all the concerns raised by various bodies that a peat slide or bog burst will not occur.**

8:Geological Survey of Ireland (GSI) have stated 'Landslide susceptibility in the area of the proposed wind energy development is variable and is classed Moderately low/Moderately High to High. There have been previous landslide events in the vicinity of the proposed wind energy development'. This is extremely concerning and again taking into account that there has been a recent land slide in November 2022 without any excavation works, peat disturbance taking place. The wind farm should not proceed in light of the concerns raised.

9:It is extremely concerning that the eastern side of the site is drained by a combination of north-south drains/streams and the Keerglen river running west to east (paragraph 8.3.1). In the event of a landslide it is clearly foreseeable that Keerglen river could be destroyed with habitats, shrubbery, trees and untold levels of peat washed into the river and connecting to the sea in Ballycastle village akin to the Derrybrine disaster. A landslide adjacent to a river and running into the beach is hugely damaging to the environment. It is clear from all the concerns raised that there is a high probability of a landslide occurring should the wind farm proceed.

10:At paragraph 8.3.2 it states that the site predominately comprises blanket peat which again raises concerns re a peat slide. The peat depths recorded vary from 0.1m to 4.6m, thus leading to huge disturbance of blanket bog in a know area of landslides.

11:Paragraph 8.3.8 states that there are no recorded peat slides within the Glenora wind farm site. Despite this it does mention the landslide in November 2022 which is believed to be as a result of heavy rainfall. They state that it is believed that the landslide in the 1950's did not occur on site. Local knowledge believes it to have occurred adjacent to Glenora in the townland of Keerglen. They also confirm other landslide's close to the area which renders all this area susceptible to land slides and raises serious concerns about the area even being proposed for potential wind farms in the Development Plan. It is clear that all of the area should be removed from the development plan as open to speculation for wind farms.

According to paragraph 8.3.8 there have already been 10 land slides recorded close to the area of the designated wind farm. This includes the November, 2022 land slide on site.

12 Table 8.6 raises serious concerns in respect of the summary of ground conditions where the turbines are to be placed and ground water vulnerability with turbine T1 and T18 been assessed as Extreme, T2 to T7,T9 to T13 as Moderate, T8 and T14 to T17, T19 toT22 as High and the area for the Meet Mast, Temporary construction compound 1 and compound 2 as high. Temporary construction compound 3 and 4 are moderate while construction area 5, BP1to BP3 are also high. This appears to be mitigated by the slope and peat depth. With respect the slope depends from where same is measured and as there is already confirmed peat slide within the site the proposed development should not proceed. The report states that an adverse combination of factors could result in peat sliding (Paragraph 8.3.10.1) however peat slippage has already occurred on site. All the assessments were carried out in the Summer months and not after heavy rainfall in November to March. Even the report confirms despite all precautions been adhered to there is still a low risk of peat slippage and this is only on the basis that 'provided appropriate control measures for construction work in peat lands are implemented in full to ensure that all works adhere to an acceptable standard of safety'. Who ensures same and can stand over this clause? Even with the mitigation measures proposed the area is known for peat slippage with a recent slippage on site confirmed and thus is not suitable for a wind farm.

Chapter 16. This chapter focuses on the likely significant effects to the environment arising from the vulnerability of the proposed Glenora Wind farm. It focuses on the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and /or natural disasters which are relevant to the project concerned and measures that are in place or need to be in place to prevent/mitigate the likely significant effects of such events on the environment.

-This aspect of the report is a desk study (16.2.2). It is not an on-site survey.
- The study at (16.3.4) deals with peat stability and relies on the report of Fehily Timoney their report was finalised as a result of a survey during the Summer months. There is no evidence that any mitigation methods as outlined at 16.4.2 will be adhered to in full to an acceptable standard of safety and the mitigation methods do not allow for the known peat slide within the site in Nov 22 which is adjacent to two rivers the Keerglen river and also the Altderg river which runs into the Oweninney river (renowned salmon and trout river) and travels west to the sea. The known instability of the site is a real issue of concern and in the circumstances it is contended that it would not be possible to guarantee no further landslides in the site and in turn is a clear risk to the environment, the adjacent rivers, habitats and the two national heritage area's (Innagh and Ummerantarry).

- Paragraph 16.3.10 states the turbines are not a risk to health and safety of the general public. This is not accepted. There is a real risk to the public as the site is known to have a recent landslide thus contamination to ground water is a high risk and taking into account the fact that the wind farm is adjacent to two rivers one which runs into the sea at Ballycastle beach and a second into the Oweninney river. If a landslide occurs this will in turn destroy shrubbery, trees and destroy the water in the two adjacent rivers and lead to complete contamination of their waters and fish in the rivers and habitats swept away in the landslide. It is also liable to damage waters in the NHA'S closeby.The turbines are also known as a damage to health of individuals for noise pollution and the adverse effect of same on physical and mental health. The flicker from turbines again has adverse effects on physical health of individuals.

- The report compiles a risk register at 16.4.11.2 which contains all potentially relevant risks identified during the construction phase of the proposed development. This does not deal with the real cause for concern which is a landslide. Table 16.5 on page 16-16 lists peat stability as a potential vulnerability to disaster risk but just deals with movement of peat within the site and a possible cause of the risk and cites mismanagement of excavated material on site and severe weather conditions – storm, flooding as the possible cause. It fails to focus and address the real concern of a realistic and foreseeable risk of a land slide and its devastation on the environment . When it address the potential to cause accidents and or disasters it mentions traffic incidents and contamination but as part of contamination does not address a landslide.
- The assessment of risk during the operation phase is address at 16.4.1.1.3 When addressing risk of contamination it deals with possible spillage of fuel, chemical solvents, sewage or waste water into watercourse or percolated to groundwater it states the possible cause of same to be a vehicular incident on the public road involving fuel, waste water or sewage transportation in the operational phase. For collapse damage to structures it states that the possible risk to be earthquakes, and vehicular collisions due to driver negligence on public roads and does not address landslides. At 16-19 it states that the consequence rating assigned to each potential disaster assumes that proposed mitigation measures and safety procedures have failed to prevent a major accident and /or disaster.

-The report at table 16-8 states that the risk of severe weather is unlikely is not accepted taking into account the severe and heavy rainfall since Summer 2021 which FT state is a possible cause of the land slide on site in November 2022. It minimises the risk of peat stability during the construction phase and appears to predate the actual slide that has occurred. It states that the risk of peat instability during construction phase would result in a 'limited consequence with a limited number of people affected simple contamination of environment eg watercourses, aquatic habitats and associated species would have localised effects with short duration.

-The Risk scores as set out in Table 16-9 during construction phase it refers to the likelihood of peat stability as 2 and risk score as 4.(5 being the highest score). The risk of peat slide is not addressed during the constructional phase or in the decommissioning phase.The rating assigned is not accepted. In addition there is a high risk of flash floods which is known in the area and in the Keerglen river. The Derrybrine peat slide occurred during the operational phase. It too was close to a river and the damage was catastrophic. Table 16-10 rates the risk of peat slide or flooding consequence as very unlikely which is not accepted. The report concludes that the risk of a major accident/disaster during the construction phase as low however it does not appear to address the recent land slide,or the major rainfall in the area over the past two years, local knowledge and the potential for flash flooding in the area. **The report is a desk study.**

Storage of Peat Waste on site:

It is proposed that all peat excavated on site will remain on site stored in the excavated quarries and more spread over ground on certain areas. While it is also mentioned that mounds will be created and to prevent their erosion through weathering the peat material will be compressed by using the bucket of a machine. It is very concerning that a proposal to create mounds of peat in a volatile area such as Glenora and surrounds will have serious environmental implications for run-off to the vast network of drains and streams that lead into the Keerglen and Altdearg rivers. I do not consider that the use of silt filtration systems as mentioned in this proposal are sufficient to withstand a slippage event/bog burst similar to what happened in Nov 22 when 3750 cubic metres were displaced without any construction activity. Further more I understand there is potential for carbon release to the local environment and especially into streams and drains which could be damaging to the local NHA'S. I consider the proposal to store the peat on site is not ideal and may not meet the legal requirements and environmental guidelines which apply towards the storage of waste including organic waste such as peat. Construction material may not be considered waste if its further use on site is guaranteed and that use serves a purpose . In the case of peat storage this is not a further use of site waste but rather the permanent storage of an unusable waste material .Were this methodology allowed in Glenora then storage of all types of waste on site nationwide could become commonplace. An Bord Pleannala should satisfy itself that the peat waste from the project is stored in an appropriate waste facility and wherever this location may be so long as the facility is fit for purpose and meets the legal and environmental requirements governing waste disposal.

The construction of Borough pits on site (Quarrying):

The construction of borough pits on site involve the removal of the top layer of peat and the removal of the underlying material including rock for the purpose of road building.This process amounts to quarrying on site. There are strict environmental

and legislative guidelines around the process of quarrying and their licensing. It is my contention that each borough pit/quarry should require a quarry licence to operate in this country and have the necessary environmental impact assessments in place to obtain such a licence. An Bord Pleannala should satisfy itself that the required environmental and legislative guidelines are applied. It is also my contention that any currently dis-used borough pits/quarries present on site or in the site vicinity should also satisfy the legislative requirements and environmental guidelines required to operate.

Fire Hazard :

Wind turbines catch fire and a google search quickly establishes a significant number of same in very recent times during both the operation of the wind farm's and during construction such as at a wind farm in the Shetland islands at a site being developed by Viking Wind/SSE Reneables.

A) North Of St Cyrus, Scotland (Nov 23)

- It was widely reported how a turbine caught fire and burned for 40 minutes. A neighbour to the event is quoted as follows; "There was debris on fire and it was flying off of it and getting caught by the wind. We were lucky the direction the wind was going was away from the farm but there were small fires going on in the nearby fields". The article goes onto say that due to the electric nature of the fire , the fire service did not actively try and put it out with water. To avoid the flying debris they stayed a safe distance away and observed.

Quote:" One of the mechanism's in the turbine is meant to raise an alarm if it has any faults, but it never went off".

B) Scroby Sands windfarm off Norfolk coast (Aug 23)

A turbine catches fire .

C) Arklow

Wind turbine catches fire after being struck by lightning of the coast of Arklow.19/10/2022.

D) Blaen Bowi Wind Farm near Newcastle Emlyn.(Uk). Turbine catches fire.

Newspaper article reports that walkers enjoying a Sunday stroll were shocked to see a wind turbine burst into flames,disintegrate and explode.

Fire service spokesperson is quoted as follow's: "Crews responded to a wind turbine which was a light on their arrival. Pieces of wind turbine were falling nearby and crews monitored the condition of debris. No further action was taken by crews and the landowner continued to monitor for fire spread and falling debris."

e) Shetland Islands 29/12/2023 .

A fire broke out at a wind farm under development by VikingWind/SSE renewables on the North Sea island of Shetland. It was confirmed the fire started at a temporary mobile generator.

The above examples demonstrate the frequency of such events and are by no means an exhaustive list of wind turbine fires over the past number of years at numerous locations around the world. They show fires resulting from systems failure, lightning strikes and hazards during operation and construction. It also demonstrates that fire crews clearly struggle to deal with those fires choosing on many occasion's to maintain a safe distance to monitor events while the fire burns itself out .Therefore with regard to the proposed development I will first establish the following regarding the Glenora site:

-the site itself consist's of 1290 hectares with the majority used for coniferous forest and rest is made of vegetation including heather's and heaths all highly inflammable in dry spells of weather.

-Glenora with its 1290 hectares only forms a part of North Mayo that in total reaches an area over many square miles and thousands of hectares ranging from Eskeragh, Crossmolina to Bangor –Erris ,north towards the Atlantic ocean at Porturlin and east towards the Ceide fields and back towards Shralagga/Glenora. It is an area of extensive blanket bog covered in heather, vegetation and coniferous forests all of which are highly inflammable as already mentioned.

-Adjacent to Glenora itself is the **National Heritage Area of Innagh bog (site code:(002391).** A site synopsis by National Parks and Wildlife states the site runs 4km along a North-South axis for most of its length and is about 1.5km in width. It is surrounded by conifer plantation except on the Northern Boundary which coincides with the southern boundary of the Glenamoy Bog Complex which is a special area of conservation. NPWS also confirm that the site contains a number of Irish Red Data Data Book species such as the Red Grouse, Golden Plover, Irish Hare, Common frog and lizard. NPWS go onto say "Inagh Bog NHA is a site of considerable conservation value as it contains an extensive area of undisturbed upland blanket bog habitat. Blanket bog habitat is a globally scarce resource.". NPWS describe the main threats to this area coming from burning, drainage and potentially renewable energy development in particular wind power installations and associated infrastructure.

-**The Glenamoy Bog** complex (SAC) is situated slightly North West of Glenora and also has a designated area at the nearby Aughoose townland in Ballycastle about 2.5km only at most from the proposed Glenora development. The Glenamoy Bog SAC according to NPWS was selected for its habitats which include a number of very rare plants some of which are synonymous only with this area, heather, blanket

bog and Atlantic salmon. The area of blanket bog is established as among the largest in the country.

- **Ummerantarry Bog NHA (NPWS site code: 001570**) is also adjacent to the Glenora development bordering Altdearg. NPWS describe it in their site synopsis as "a site of considerable conservation significance containing intact upland blanket bog and wet heath and featuring pool systems, flushes and undisturbed blanket bog in which the uncommon Cladonia Arbuscula occurs".

NPWS once again confirm the Golden Plover breed at this site (species listed in the Irish Red Data Book).

Gorse fires have occurred regularly in various locations around Mayo and around the country proving extremely difficult to contain even where fire breaks pre exist. Such fire's would have been on much smaller scale than the potential inferno this development with it's unique location presents with regard to it's overall enormity. An Bord Pleanala should satisfy itself of the capacity of fire services in Mayo to deal with turbine fire itself in the first instance and also establish the maximum height fire services can work. It is respectfully suggested that An Bord Pleannala should also note that turbine fire is spontaneous and tends to spread burning debris from a height over distance which would be detrimental in such a large area of afforestation and heathers covering thousands of hectares as already mentioned. The resources required to contain such a fire and the response times to reach remote areas present real possibility of extensive damage occurring to vegetation, wildlife,heathers, habitats, rare plants including those rare to this area, red listed species both within the site itself and more importantly in the adjoining NHA'S and Sac areas. In particular the possibility of a turbine fire occurring at night due to system malfunction or lightning strike following a prolonged dry and warm period across this area would be catrostophic firstly as huge delays would be expected by the time the relevant authorities would become aware of a major incident. The fall-out from an environmental and ecological perspective would be huge particularly in such an environmentally sensitive area. The run off of burned vegetation into local rivers and streams as a result of flooding following extensive dry periods could realistically present problems for landowners downstream and of course the water quality of salmonid rivers such as Altdearg river which flows into the famous Oweninny river and Keerglen/Ballinglen rivers both known for Atlantic wild salmon and sea trout. **This environmentally sensitive area and it's proximity to NHA'S and SAC should not be approved for a project of this nature and should be removed from the zoning to protect its unique environment.**

Archaeology:

The area is identified as part of the Ceide fields complex and it is mentioned in the planning application that the unique underground field systems may be found during construction activity at Glenora. The ceide fields are among one of the oldest

historical sites in Europe. It should be noted that the archaeology associated with the Ceide Fields is not of a visual type in that it can be seen with the naked eye. It is a hidden treasure perfectly preserved under the peat lands of this area in North Mayo. Surveys carried out by archaeologists from the nearby Ceide fields centre confirm the existence of the field system only a few hundred meters away in Ballykinlettragh and into Keerglen townland.We emphasise that those are only the areas which were surveyed at the time yet the presence of the field systems is documented. The field systems are present across the hills all the way to Rathlacken including across the hills of Ballinglen, Suifinn, Annaghmore and south in a straight line to Blanemore Forest in Moygownagh. Blanemore like Glenora was planted with coniferous forest. The EU places huge responsibility on member states to identify monuments and local heritage and to act accordingly in preserving their integrity. Nowhere does it provide for the part sacrificing of any part of our heritage or our monuments for any purpose. This area in North Mayo particularly the areas of blanket bog and their surrounds must be preserved for future generations. I have no doubt that An Bord Pleannala will act in the best interests of our national heritage by protecting same.

Bird Survey:

MWP undertook the bird surveys on behalf of the developer. Below in bold are extracts taken from their report (2.9.2)

"Large areas encompassed within the southern section of the proposed wind farm site boundary map was relayed to MWP after MWP'S involvement at the site had ceased (as of March 2023). The bird surveys undertaken by MWP were therefore based on the original site boundary which was smaller in extent."

" At the time of the 2019 to 2022 breeding surveys, the current proposed wind farm site boundary was surrounded by a much greater degree of forestry in contrast to the current proposed wind farm site boundary. This was a critical factor in the selection of the 500m survey breeding season in terms of potential habitat suitability for target species."

"With regard to breeding waders and wildfowl at the time of these surveys ,the proposed wind farm comprised pre-dominantly commercial forestry with no permanent lakes or ponds present. Any standing water occurring would have been restricted to temporary/elphermal standing water which may have been present within parts of the site on occasion. Therefore it is noted that, at the time of surveys the habitats encompassed within the proposed wind farm site boundary under consideration at the time were considered to be of limited use to breeding and/or foraging/rooster wader and wildfowl species."

"It is noted that the lakes and permanent ponds located within the southern sections of the current proposed wind farm site eg, Altdearg Lough, are situated within the additional area's of land which were subsequently

incorporated into the proposed site boundary. This limitation in coverage may mean that breeding birds may have been un-recorded in these areas."

"As discussed in Section 2.9.2 above,large areas in the south of the current proposed windfarm site, comprising mainly forestry and suitable woodcock breeding habitat, were added at a later stage".

Observation: The above statement by the author of the bird survey clearly establishes that the report falls short for the reasons given. It is clear that environmentally sensitive areas to the southwest,south and southeast were added at a later stage after the bird survey was completed and those areas are adjacent to the NHA of Ummerantarry and Inagh with both established as breeding grounds for red listed species such as the Golden Plover and Red Grouse as stated by NPWS. The close proximity of those areas is a worrying concern especially that those "large areas" were only added at a later stage after the bird survey was completed in March 2023. In its current shortened state the survey confirms a number of red listed species present which is expected in this environmentally sensitive area. It is noted that MWP also state that they did not survey part of the eastern side of the site on health & safety grounds and also with regard to its slope. MWP confirm this part of the site contains suitable woodcock breeding ground. An Bord Pleanala should satisfy itself that the survey covers the entire site. Also of concern is the relatively short times dedicated to the bird surveys. For instance in 2.4.2.1.3 of the bird survey at Table 5 (Nocturnal breeding surveys 2019-2022 within the BIAR site) it confirms that a total of only 5 hours was devoted to nocturnal breeding surveys over a period of 3 years. This is hardly considered adequate to identify a range of species over such an extensive area and difficult terrain.

Flood Risk :

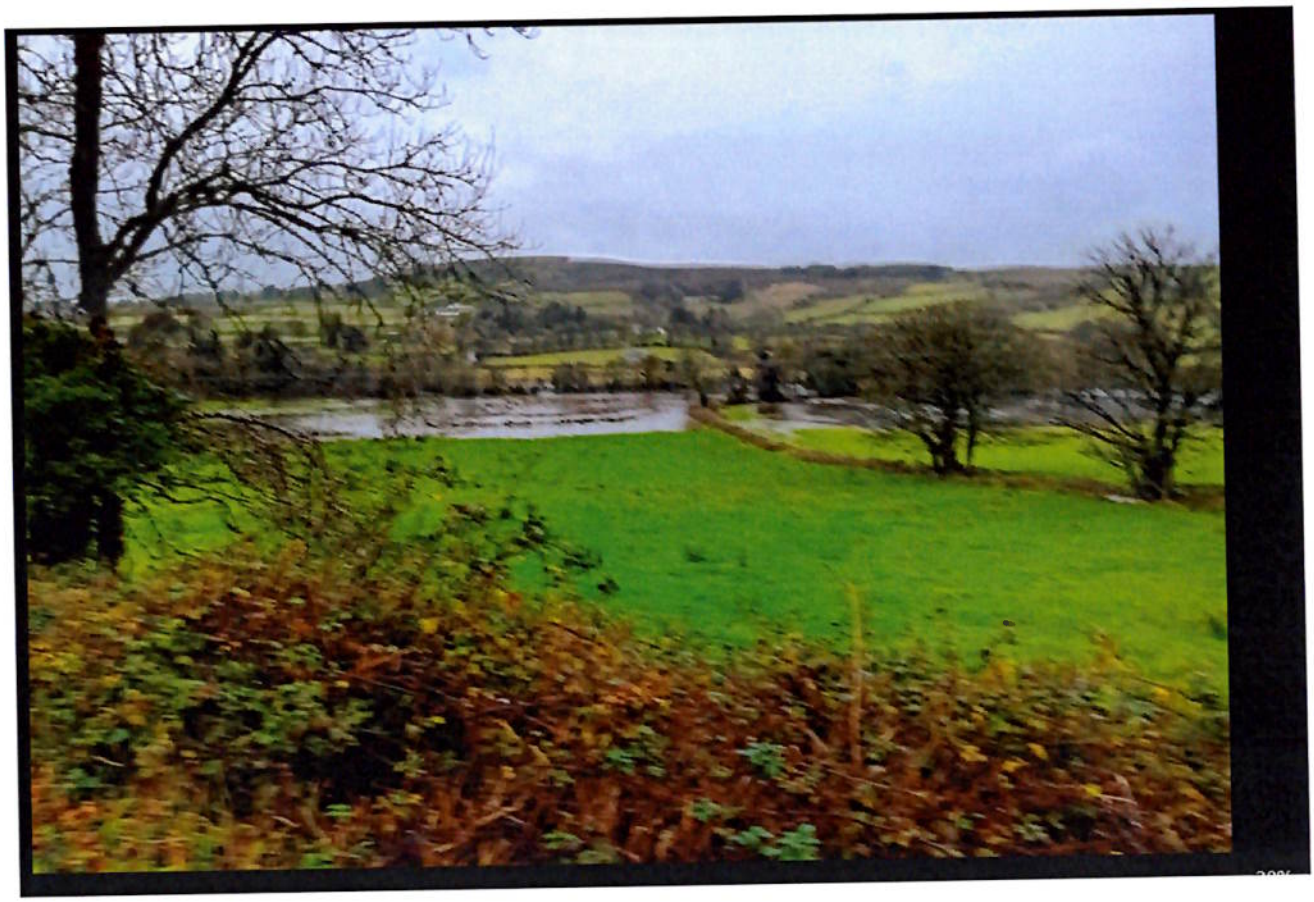
The proposed site of Glenora/Keerglen is the main source for Keerglen river which is the main river that flows into Ballinglen and the most prone to flash flooding. CDM state in their appraisal as follows:

" With regard to flood risk, the county development plan incorporates a Strategic Flood Risk Assessment (SFRA)which included mapped boundaries for indicative flood zones that account for factors such as local knowledge, site walkovers,and flood risk indicators. Neither the wind farm site nor downstream area's feature in the County SFRA".

Comment: Historically there is a long history of flash flooding in the Keerglen, Ballykinlettragh and Ballinglen with local villages being regularly cut off and unable to reach the main Ballycastle/ Crossmolina road until flood waters subside. This of course has implications for emergency services.Those access roads are located 5/6 km from the wind farm site. As previously mentioned there was a bog burst from Keerglen/Glenora in late 1954 that travelled all the way to the sea at Ballycastle. Bridges on the aforementioned roads were re-built (Mill road bridge) in the last

century following flash floods having swept away the original. Glenora was planted with coniferous forestry in the past and local knowledge would consider the additional drainage and water run-off that resulted contributed to a higher level of flooding in the Ballinglen area which also floods lands all the way to the beach in Ballycastle. The area of Currower near the beach in Ballycastle is particularly susceptible to high flooding from the Ballinglen river particularly if there is a high tide. It is considered that large scale industrial development at this wind farm site will contribute to additional flooding and only make a bad situation worse. It is considered locally that the proposed mitigation features such as check dams and swales etc will do little to control flash flooding with respect to the terrain. There is very little land or homeowners can do to limit or prevent flooding coming onto their properties in this area as much of the work required is considered in breach of environmental regulations. Works such as cleaning or deepening watercourses are prohibited on environmental grounds.

Below are two pictures taken recently at Ballinglen (5/6km from windfarm) showing extensive flooding on lands as you enter local villages. The photos were only recently taken from the main Crossmolina /Ballycastle road and access bridges and roads would have been flooded and impassable at that stage. The County SFRA does not include the flood plain of Ballinglen and is therefore irrelevant to this application given the level of flooding which occurs. Locals affected in the town lands of the catchment area of the Ballinglen river have never been surveyed collectively or individually with regard to flooding in this area. Therefore the SFRA serves no purpose whatsoever as reference material for the purpose of evaluating flood risk to the Ballinglen catchment area with regard to this proposed development. Any survey whether it be by this developer or the local authority should include the measurement of water levels over a two winter period at least and should not be confined to the Summer month as is the case with most other surveys attached to this wind farm proposal.



Visual Impact of the wind farm

I object to the visual impact of this windfarm and it's proposal to erect industrial turbines 180 metres high in this area of high visual and scenic amenity . Local planning permission approvals in respect of dwelling houses are greatly influenced by their visual impact on the scenic amenity of the area and for this reason many are refused outright.This is an area of very scenic hills and valleys which are among the most historical and rich archaelogically in this country and Europe. It is a confirmed fact that the hills of Ballykinlettragh/Ballinglen which dominate the photomontage VIEWPOINT 9 – Annaghmore contain the underground field systems as part of the Ceide Fields complex dating back 6000 years ago. The presence of 180 meter turbines emerging from and overbearing on such an historical landscape is a highly obtrusive development that detracts from the rural character, scenic amenities and adversely impacts on this culturally and historically rich landscape. I consider this proposal does not uphold the repsonsibilities placed on us by the EU to fully protect our national monuments and heritage and therfore conflicts with the Mayo County Development Plan in that it seriously injures the visual amenities of the area which would be contrary to the proper planning and sustainable development of the area and the protection of its rich and unique heriatge and archaelogical sites. The ceide fields complex is older than the pyramids of Egypt and Stonehenge.This unique area should be protected at all costs.This project should not

go ahead for this reason alone. Regarding the aforementioned photomontage it appears the photograph was taken near Annaghmore NS **where I believe a hill in the middleground minimised the effect the height of the turbines have visually in the locality. I suggest this photomontage should have been taken further towards Ballycastle where local residents could see the true extent of their impact on their locality and dwellings.**

On-Site Surveys:

It has been noted that on site surveys occurred in the Summer months only when this site was at its driest. Even in their hydrology report CDM Smith Ireland Ltd refer to the use of surveys carried out by Fehiley and Timoney regarding **groundwater level monitoring covering the period June 2020 and May 2021**. CDM Smith also confirm (9.2.2) that they themselves undertook walkover surveys in July 2021 and June 2023 during rainfall events with a focus on the existing site drainage. The timing of those walkovers can hardly be relied upon even if there was rainfall as the heaviest rainfall in this area as per Belmullet Met Office is over the Winter months and caused the slippage events in Nov 2022 and 1954. Data that was obtained from surveys carried out during the driest months of the year can hardly be relied upon when assessing site risks which includes the wettest periods of the year,ie the Winter months when peat slippage has occurred due to heavy rainfall. An Bord Pleanala should satisfy itself in respect of the risk ratings.

MVP confirmed in their bird assessemnt report that large areas at the southern section were added to the site after they completed their assessment in 2023. An Bord pleanala should satisfy itself that all other reports which form part of this application were not carried out on the full site.

Grid Connection:

The planning application does not include connection to the grid. This appears to be a seperate application which will presumably be made at another time. It has not been confirmed if this project has been approved connectivity to the grid. We contend that this application in respect of a wind farm is pre-mature until grid connectivity is confirmed. An application for ancilliary grid connection should be submitted in tandem so that the entire development (wind farm and ancilliary development) can be assessed in a fully integrated manner.

Appendix 1: Western People Saturday Feb 5th 1955

Freak Eruption-kills fish-makes land useless-in Ballycastle.

" A Most strange phenomenon" says Co. Councillor.

Dept of Lands and Fisheries help sought.

A freak eruption, which caused a river to overflow and left salmon and white trout strewn-dead-for a quarter of mile from the riverbank was described by Mr George Egan COC, AT Mayo Co, Agricultural meeting in Castlebar on Saturday last.

Mr Egan was speaking of the Ballinglen area, Ballycastle, where he said " a strange phenomenon occurred during the weeks heavy rain which caused untold damage to arable land.

Said Mr Egan "A landslide in the ordinary way we all can understand but this was a most peculiar occurrence. Mud and bog was flung over a large area and thrown into the Ballinglen River . It carried it for miles, choked all the salmon and white trout and everything in the river, and threw them up for a quarter of a mile in on the land . But the worst thing of all was the covering of bog and mud of arable land ,which was never in its history covered by anything but good sod. It seemed to be a strange eruption which boiled up and overflowed down the side of the mountain and into the river causing it to burst it's banks.

He added that it would have been more serious if the tide was coming in. Committee members were at a loss to give a reason for the eruption but were unanimously behind Mr Egan's proposal to ask the Dept For lands and Fisheries to come to the aid of the affected people, whose lands had been rendered useless for the time being, and to re-stock the famed fishing river with fry.

-