



APPENDIX 4-1

**2023 AFRY SITE INSPECTION
TECHNICAL NOTE**



Meenbog Wind Farm Site Inspection Technical Note

This 'Site Inspection Technical Note' is issued following the visit to the partially constructed Meenbog Wind Farm site. The purpose of the visit was to inspect and comment on the current status of the site in relation to peat stability at the site.

20 October 2023



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Date	20 October 2023

Introduction

Following a request from Planree Limited, a site visit was carried out on 19th October 2023, at the Meenbog Windfarm, located in Co Donegal. Construction works at the site of the Meenbog Windfarm were nearing completion when they were suspended following a peat slide in November 2020.

The purpose of this visit was to assess the overall site stability of the Windfarm from a geotechnical perspective to check whether there has been any instability since the peat slide.

Liam Power, Principal Civil Engineer from 'AFRY Ireland Limited' (AFRY) and James O'Brien Principal Geotechnical Engineer from 'Tara Engineering Consultants' (Tara) together with Christopher O'Mahony from Mid Cork Electrical Limited (MCE) attended at the site on Thursday 19th October 2023 to carry out the inspection.

Afry (previously Ionic) have been involved in the Meenbog Windfarm since its inception. Afry acted as both Civil Designer and also Project Manager of the windfarm on behalf of Planree Limited. Following the 2020 peat slide at the windfarm, Ionic prepared a substantive report entitled 'Peat Stability Quantitative Assessment Report' (Ionic 2021 Report) which provided detailed information on the potential for future peat instability at the site. Liam Power and James O'Brien were not contributors to the Ionic 2021 Report and we therefore carried out our own independent investigation of the site. In advance of the site visit we reviewed the Ionic 2021 Report which informed the focus of the visit. The Ionic 2021 Report confirmed that:

"the overall site is currently stable based upon this detailed assessment carried out along all roads, hardstandings, borrow pits, peat storage areas and peat stabilisation areas".

We confirm that our observations on the site visit did not result in us reconsidering the conclusion that was reached in the Ionic 2021 Report.

It was observed that since the Ionic 2021 Report was issued that the standard of revegetation on site is to a very high standard and no signs of new or recent instability or peat movement were observed.

Site visit observations

During the site visit, the AFRY and Tara engineers inspected the overall site including the turbine locations, site access roads, peat storage areas and borrow pits.

Turbine Locations

The proposed turbine locations were inspected. There were no indicators of active or recent movements including tension cracking or recently disturbed peat.

Movement monitoring locations which included string line posts (installed after the 2020 movement) were inspected and signs of recent movement were not observed. Please see attached photographs showing the string line posts attached at Appendix A.

Access Roads

The access roads to the turbine locations were visually inspected. It was evident that the majority of the works have been completed on the access roads and we did not observe any issues.

Peat Storage Areas

Photographs from these locations are included in Appendix B.

At two of the peat depository areas located at T15 and T17, cracks parallel to the embankment crest were recorded in the Ionic 2021 Report. The Tara and AFRY engineers inspected the cracks during the site visit. We did not observe any additional or recent movement at these areas which appear to have settled. This was confirmed by the inspection of monitoring posts which were installed at both depository areas in 2021. We observed that there is considerable vegetation growth within both depository areas which would further indicate that the areas have settled and are stable. Please see photographs included at Appendix [].

Borrow Pits

Borrow Pit A

The berm walls are in good condition with no visible sign of distress or displacement. The peat is approximately 1 metre below the top of the berm.

Borrow Pit B

The berm walls are in good condition with no visible sign of distress or displacement. A single storage call remains in place within the overall borrow pit area.

Conclusion of Site Inspection

On 19th October 2023, Principal Engineers from AFRY and Tara visited the Meenbog Windfarm site in order to make visual observation of the peat stability within the site. All access roads, turbine foundations and hardstands, borrow pits and peat cells were inspected. Locations of previous peat movement as well as peat depository embankment movements were inspected. During the site visit visual indicators of active movement/instability were not observed, and evidence of recent movements were not identified.

We confirm that the overall site is currently stable based upon our assessment of the roads, hardstanding's, borrow pits, peat storage areas and peat stabilisation areas.



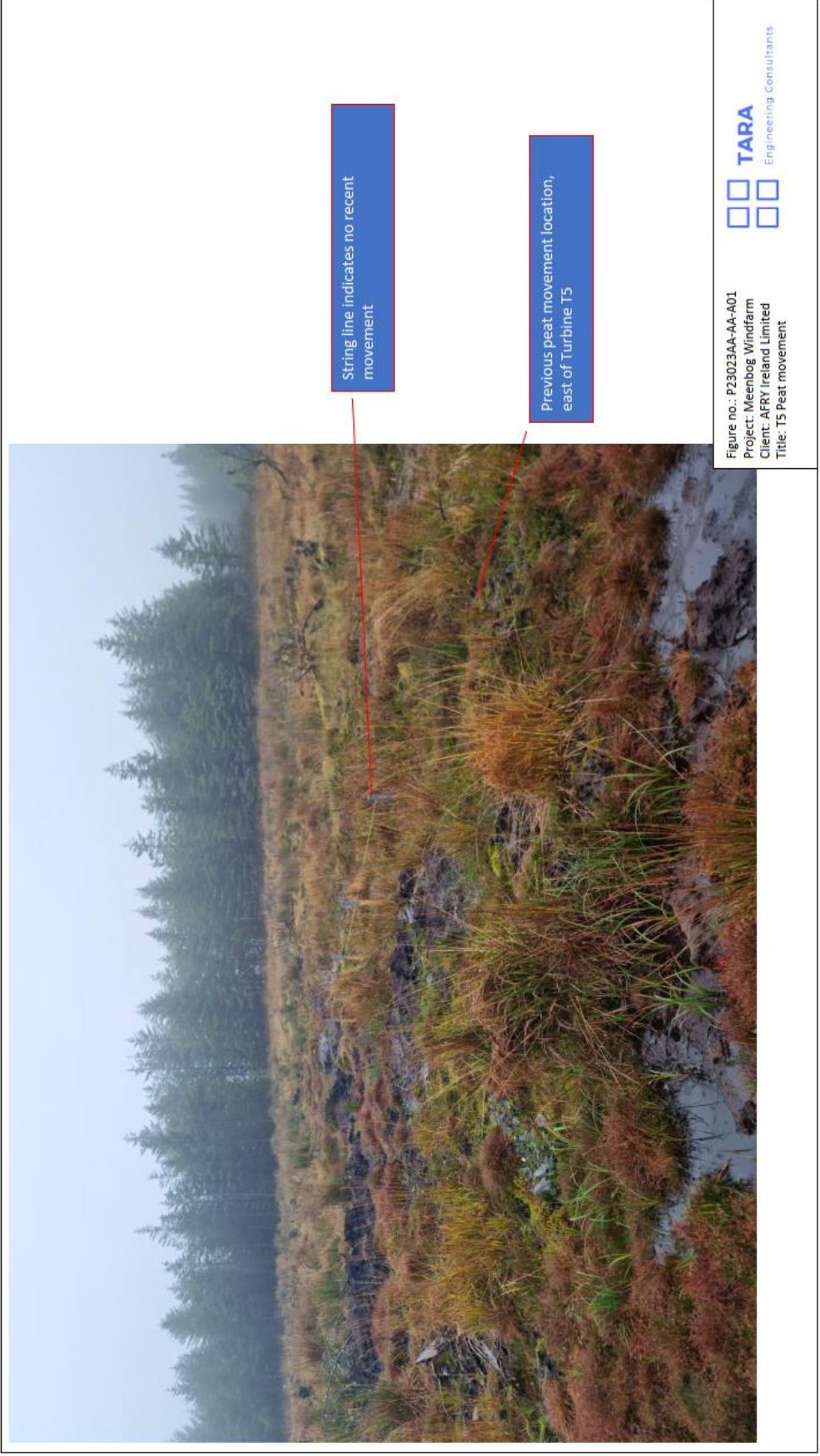
Liam Power

Senior Project Manager

Afry Ireland Ltd.

20 October 2023

Appendix A – Photographs from previous peat movement areas





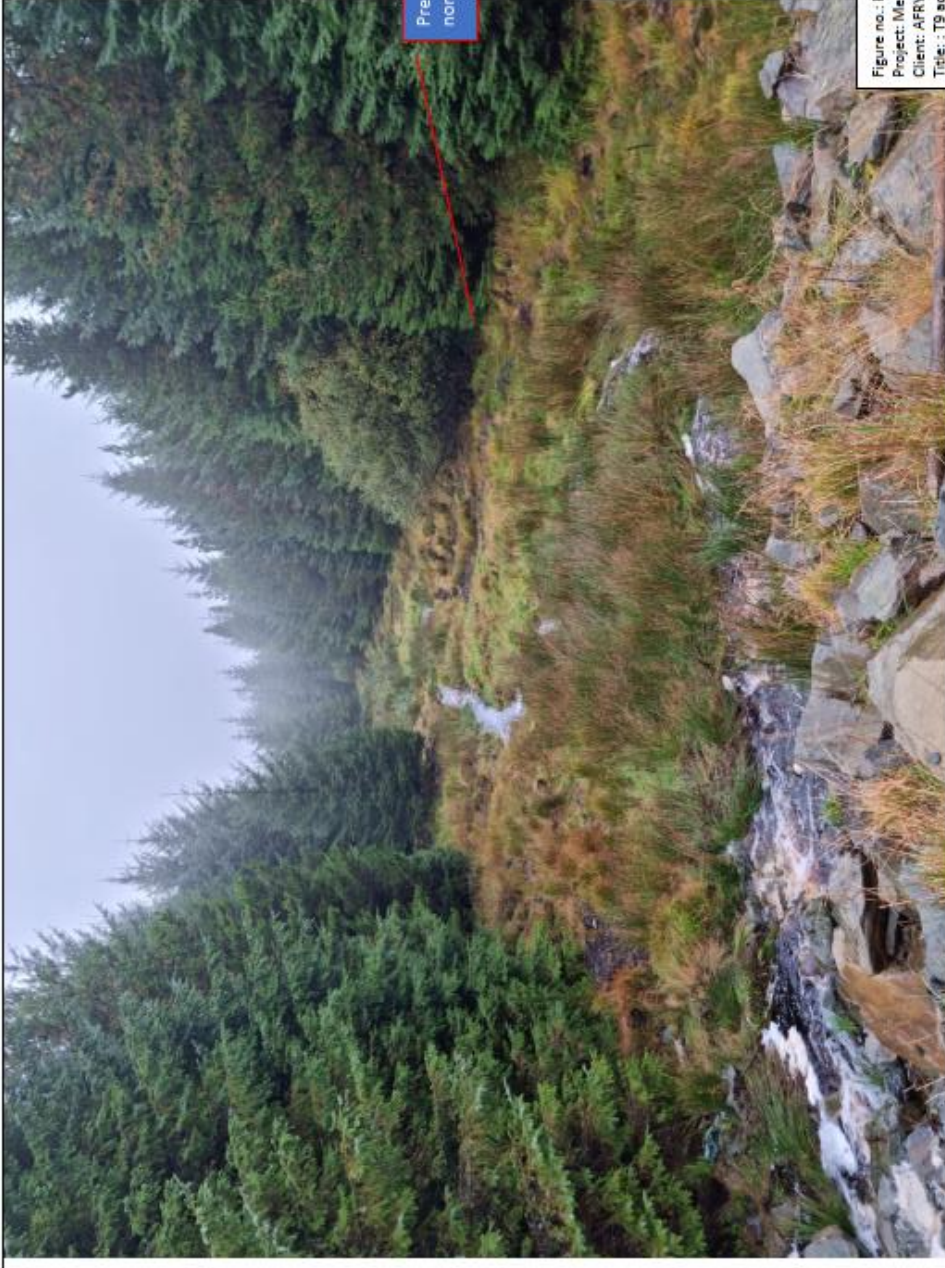
Previous peat movement location,
east of Turbine T5

Figure no. : P23023AA-AA-A02
Project: Meenbog Windfarm
Client: AFRY Ireland Limited
Title: T5 Peat movement









Previous peat movement location, view to northeast of T9 access road

Figure no.: P23023AA-AA-A06
 Project: Meenbog Windfarm
 Client: AFRY Ireland Limited
 Title: T9 access road peat movement



Appendix B – Photographs from previous peat depository embankment crack locations



