Cush Wind Farm
Phase II

Environmental Impact Assessment Report

Annex 1.3: Request for Opinion of Unconfirmed Details

Cush Wind Limited

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Clondargan, Stradone, Cavan, H12 NV06, Ireland

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GALETECH
ENERGY SERVICES

Planning Department
Offaly County Council
Áras an Chontae
Charleville Road
Tullamore
Co. Offaly
R35 F893

13 March 2026
Our Ref: CUS001EXT
Your Ref: --

Re: **Request for Opinion as to Flexibility Pursuant to Section 32H of the Planning and Development Act 2000 (as amended).**

Development: **Proposed 3 No. Wind Turbine Extension to the Permitted Cush Wind Farm (ABP-316618-24)**

Location: **Galros East, Whigborough, Ballycolin, Eglish, Cush, and Boolinarig Big, Co. Offaly.**

1.1 INTRODUCTION

On behalf of our client, Cush Wind Limited ('the Prospective Applicant'), we hereby request a meeting with Offaly County Council ('the Planning Authority') pursuant to Section 32H of the *Planning and Development Act 2000 (as amended)* ('the Planning Act') for the purposes of receiving an Opinion on unconfirmed details with regard to an application for planning permission ('the proposed application').

The appropriate fee has been paid and a copy of the payment confirmation along with the 'Flexibility Meeting Request Form' (Form No. 20) in accordance with Article 15J of the *Planning and Development Regulations 2001 (as amended)* ('the Planning Regulations') is enclosed at **Annex 1** hereto.

1.2 BACKGROUND

A pre-planning meeting was held with Offaly County Council on 16 February 2026 (ref: BR2541) in respect of the proposed application. During that meeting, the Prospective Applicant outlined their intention to seek design flexibility in respect of turbine dimensions.

The proposed wind energy development ('the proposed development'), consisting of a 3 no. wind turbine extension to the permitted (ABP-318816-24) Cush Wind Farm ('Cush Wind Farm Phase I'), is located in rural Co. Offaly, approximately 4km north of the town of Birr and c. 28km south-west of Tullamore, Co. Offaly. (see Site Location Map at **Annex 2** and draft Site Layout Plan at **Annex 3**).

The proposed development, which continues to be subject to an iterative design process informed by ongoing environmental constraints analysis, currently comprises 3 no. wind turbines and all associated and ancillary infrastructure, including turbine

foundations, crane hardstandings, internal access tracks, electrical and communications cabling, spoil deposition areas site drainage and rehabilitation works, and all ancillary development.

The wider "project" for EIA purposes will also include a proposed 110kV substation and grid connection (subject to a separate application to An Coimisiún Pleanála under Section 182A). However, the present flexibility request relates solely to the proposed development to be submitted to Offaly County Council under Section 34 of the Act.

1.3 RATIONALE FOR THIS REQUEST

The proposed development is currently the subject of a series of technical design assessments, including to determine optimum turbine locations and the most suitable turbine technology. These assessments are also informed by meteorological conditions at the proposed development site, including wind speeds as measured by the existing on-site meteorological mast. The recorded wind speeds, together with the assessment of other environmental factors, indicate that several existing turbine models currently available in the market with varying component dimensions (hub height, rotor diameter and overall tip height) are potentially suitable.

Section 32H of the Planning Act provides that a Prospective Applicant for any development falling under Section 34 of the Act may; in advance of submitting a planning application; request a meeting, with the Planning Authority in whose functional area the proposed development would be situated, in relation to obtaining an opinion as to whether it is appropriate that an application for permission be made and decided before certain details of the proposed development are confirmed.

In particular, the Planning Act specifically acknowledges that such circumstances include whether a Prospective Applicant may be able to avail of technology available after the making of the application that is more effective and/or more efficient than that available at the time of the application (Section 32H(2)(e)(ii)). Circular Letter PL 11/2023 also specifies that such unconfirmed details may, in the case of a wind farm, include the turbine component dimensions.

Having regard to the above, the precise turbine component dimensions are unlikely to be confirmed at the time of the making of the planning application for the following key reasons:

i. Wind turbine technology is evolving rapidly and turbine models of increased efficiency and which are more effective in producing greater electricity generating capacity are constantly emerging in the market, sometimes with larger or smaller component dimensions and sometimes within the same dimensions.

ii. The process of securing planning permission and other required subsequent consents can have very long lead-in times prior to the commencement of construction. Consequently, a maximum ten-year planning permission will be sought in the case of the proposed development. In the interim, specific turbine models (or variants) and their corresponding component dimensions may become obsolete and no longer available in the market.

iii. Wind farm design is inherently a highly complex and dynamic process which involves the precise optimisation of turbine technology with a range of meteorological, environmental, physical and electricity grid capacity factors. This process cannot be completed until all consenting processes have been fully discharged.

iv. Taking advantage of the best available turbine technology at the time of construction and therefore maintaining flexibility regarding the precise turbine component dimensions to be ultimately installed, is imperative for commercial procurement processes and for the eventual viability of the proposed development.

1.4 UNCONFIRMED TURBINE DIMENSION DETAILS

The details of the proposed development which are therefore unlikely to be confirmed at the time of a planning application for the proposed development are the hub height dimension and rotor diameter dimension of the wind turbines.

Accordingly, the Prospective Applicant wishes to request an Opinion from the Planning Authority as to whether it is appropriate to apply for permission for a range of wind turbine component dimensions as set out in **Table 1**.

Component	Dimension (metres)	
	Minimum	Maximum
Hub Height	111.6	120.9
Rotor Diameter	158	175
Tip Height	199.1	200

Table 1: Requested Design Flexibility Range Details

The requested design flexibility range details are also illustrated in the turbine elevation drawing enclosed at **Annex 5**.

1.5 STATUTORY INFORMATION REQUIRED TO ACCOMPANY THIS REQUEST

During the Pre- planning meeting held on 16 February 2026, the Prospective Applicant indicated an intention to request an Opinion from the Planning Authority on unconfirmed details in respect of turbine dimensions.

As per the instructions received from the Planning Authority, the Prospective Applicant hereby formally requests that the Planning Authority convene a meeting in accordance with Section 32H(5) at its earliest convenience to discuss the design flexibility details.

The following sections address each of the requirements as set out at Section 32H(2) that are required to accompany this request.

1.5.1 Name and address of Prospective Applicant

The Prospective Applicant is Cush Wind Limited with a registered address at Greaghcrotta, Tullyco, Cootehill, County Cavan, Ireland.

1.5.2 A site location map sufficient to identify the land on which the proposed development would be situated

A Site Location Map has been prepared and is enclosed at **Annex 2** and illustrates the location of the proposed development including associated ancillary infrastructure.

1.5.3 A brief description of the nature and purpose of the proposed development and of its possible effects on the environment

The proposed development comprises a 3 no. wind turbine extension to the permitted (not yet constructed) Cush Wind Farm (Cush Wind Farm Phase I) and all associated and ancillary infrastructure as described at **Section 1.2** above.

The purpose of the proposed development is to generate renewable electricity to contribute to the decarbonisation of Ireland's energy system in accordance with national climate and energy security policies. Subject to the turbine model selected, the proposed development is likely to have an estimated electricity generation output of between 18.3MW-megawatts (MW) and 21.6MW. The precise export capacity may however vary and is dependent on the turbine technology ultimately selected and, as it is not a physical attribute of relevance to this request, is presented here for general context only.

The proposed development is the subject of ongoing technical analysis and an environmental scoping process which has not yet concluded. The outcome of this process to date is presented in a Preliminary Environmental Impact Assessment (EIA) Scoping Report (see **Annex 4**) which identifies potential effects on the environment and sets out the methodology for assessing the likely significance of these effects in the Environmental Impact Assessment Report (EIAR).

Please note that, pursuant to the *European Union (Planning and Development) (Renewable Energy) Regulations 2025 (S.I. No. 274 of 2025) (as amended)*, the proposed development will also be subject to mandatory EIA Scoping.

1.5.4 A draft layout plan of the proposed development

A draft Site Layout Plan of the proposed development is enclosed at **Annex 3**.

1.5.5 A description of—

(i) the details, or groups of details, of the proposed development that, owing to the circumstances set out in subparagraph (ii), are unlikely to be confirmed at the time of the proposed application, and

(ii) the circumstances relating to the proposed development, including such circumstances as the Minister may prescribe in relation to any class or description of development for the purposes of this subparagraph, that indicate that it is appropriate that the proposed application be made and decided, before the prospective applicant has confirmed the details referred to in subparagraph (i) including, in particular, whether the prospective applicant may be able to avail of technology available after making the proposed application that is more effective or more efficient than that available at the time of the application

The circumstances relating to the proposed development that indicate that it is appropriate that the planning application be made and decided before certain specified details of the proposed development have been confirmed are described at **Section 1.3** above. These unconfirmed details are the hub height, rotor diameter and overall tip height dimensions of the wind turbines as described at **Section 1.4**. The range within which the wind turbine component dimensions fall are presented at **Table 1** and illustrated at **Annex 5**.

In particular, it is possible that more effective and efficient technology than is currently available may be available at the time of construction of the proposed development.

1.5.6 An undertaking to provide with the proposed application, either—

(i) two or more options, in respect of each detail or group of details referred to in paragraph (e)(i), containing information on the basis of which the proposed application may be made and decided,

(ii) parameters within which each detail referred to in paragraph (e)(i) will fall and on the basis of which the proposed application may be made and decided, or

(iii) a combination of subparagraphs (i) and (ii)

The Prospective Applicant hereby gives an undertaking, in accordance with the legislative requirements, that an application for permission arising from the subject request, will include sufficient information in respect of the unconfirmed details outlined above to enable the Planning Authority to make a decision in respect of the Proposed Development.

In particular, the wind turbine dimension range details (parameters) presented in **Table 1** will be clearly described in the statutory planning application documentation, including the public notices, and clearly illustrated in the planning application drawings in accordance with the requirements of the Planning Regulations.

Additionally, the turbine dimension flexibility range details will be described within the EIAR and Appropriate Assessment Screening (or Natura Impact Statement (NIS) as may be required) to enable the Planning Authority to carry out an EIA and Appropriate Assessment of the proposed development.

1.5.7 Such other information, drawings or representations as the Prospective Applicant may wish to provide or make available

All the information specified within Section 32H(2) has been provided herein. However, should the Planning Authority require, the Prospective Applicant can provide additional information on request.

1.6 CONCLUSION

The Prospective Applicant is requesting a meeting with the Planning Authority pursuant to Section 32H of the Planning Act in relation to obtaining a design flexibility Opinion for the purposes of Section 37I in respect of the hub height, rotor diameter and tip height dimensions for the proposed wind turbines at the Cush Wind Farm.

This request is being made due to the rapid evolution of wind turbine technology and the likelihood that different wind turbine models will become available in the future which will enable the more efficient and effective generation of renewable electricity. As a consequence it is not currently possible to confirm the precise details of the wind turbine dimensions prior to the submission of a planning application.

The Prospective Applicant has included in this request a range of hub height and rotor diameter dimensions and requests the Planning Authority to provide an Opinion that it is satisfied that the planning application can be made and decided before these details are confirmed.

We trust that the information provided herein is sufficient to allow for consideration of this request and a meeting to be held in accordance with Section 32H(5) at the earliest convenience. However, should the Planning Authority require additional information, please do not hesitate to contact this office.

Yours Sincerely,

Galetech Energy Services

Galetech Energy Services

ANNEX 1 – DESIGN FLEXIBILITY REQUEST FORM (FORM NO. 20) & FEE PAYMENT CONFIRMATION

OFFALY COUNTY COUNCIL

Comhairle Chontae Uíbh Fhailí
Offaly County Council

FORM 20

Request to Offaly County Council regarding Flexibility with regard to Proposed Application for Permission or Approval

BEFORE FILLING OUT THIS FORM PLEASE NOTE THE FOLLOWING

Failure to complete this form or attach the necessary documentation, or the submission of incorrect information or omission of required information, will lead to the planning authority or An Coimisiún Pleanála refusing to deal with your request. Therefore, ensure that each section of this request form is fully completed and signed, entering n/a (not applicable) where appropriate, and that all necessary documentation is attached to the request form.

HOLDING OF MEETING WITH THE PLANNING AUTHORITY OR AN COIMISIÚN PLEANÁLA

Under section 32J of the Planning and Development Act 2000, as amended, neither the taking place of a meeting under section 32H nor the provision of an opinion or notification under section 32I shall prejudice the performance by the planning authority of its functions under this Act or any regulations under this Act or any other enactment and cannot be relied upon in the formal planning process or in legal proceedings.

Under section 37C of the Planning and Development Act 2000, as amended, the holding of consultations under section 37B shall not prejudice the performance by An Coimisiún Pleanála of any other of its functions under this Act or regulations under this Act and cannot be relied upon in the formal planning process or in legal proceedings.

Under section 182E of the Planning and Development Act 2000, as amended, neither the holding of consultations under subsection (1), nor the provision of an opinion under subsection (3), shall prejudice the performance by An Coimisiún Pleanála of any other of its functions under this Act or regulations under this Act, or any other enactment and cannot be relied upon in the formal planning process or in legal proceedings.

Under section 288(2) of the Planning and Development Act 2000, as amended, the performance by An Coimisiún Pleanála of functions under section 287 shall not prejudice the performance by it of any of its other functions in relation to the prospective applicant, proposed application or proposed development concerned, or be relied on by any person in relation to; an application or request under this Chapter, the consideration by An Coimisiún Pleanála of such application or request, or the making of a decision under this Chapter in respect of such application or request,

or in proceedings before a court relating to, or in connection with, such application, request, consideration or decision.

DATA PROTECTION

It is the responsibility of persons or entities wishing to use any personal data on a planning application form for direct marketing purposes to be satisfied that they may do so legitimately under the requirements of the Data Protection Acts 1988 to 2018. The Office of the Data Protection Commissioner states that the sending of marketing material to individuals without consent may result in action by the Data Protection Commissioner against the sender including prosecution.

RETURN OF COMPLETED FORMS

Completed forms should returned:

- by email to planning@offalycoco.ie
- or by post to Planning, Offaly County Council, Áras an Chontae, Charleville Road, Tullamore, Co. Offaly. R35 F893.

1) **Prospective Applicant** Name:	Cush Wind Limited
Address:	Greaghcrotta, Tullyco, Cootehill, Co. Cavan, Ireland. H16 VN50.
Telephone:	+353 (0) 87 1163978
Email:	clo@cushwindfarm.ie

2) Request for meeting	
✔	**Section 32H(1) Request- section 34 application**
	Section 37CC(1) Request- section 37E application (SID)
	Section 182F(1) Request- section 182B Strategic Electricity Application
	Section 182F(1) Request- section 182D Strategic Gas Application
	Section 287A(1) Request- section 291 Maritime Area Application

3) Contact details of person authorised to operate on behalf of the Prospective Applicant (Applicant or Agent): (Not for Public release)	
Name:	Galetech Energy Services
Correspondence Address:	Clondargan, Stradone, Co. Cavan, H12 NV06
Telephone:	+44 7731 828417
Email:	info@galetechenergy.com

4) Proposed Development	
Address of the proposed development:	Galros East, Whigborough, Ballycolin, Eglish, Cush, and Boolinarig Big, Co. Offaly.
Description of the proposed development:	Proposed 3 No. Wind Turbine Extension to the Permitted Cush Wind Farm (ABP-316618-24)

5) Declaration:	
I hereby declare that, to the best of my knowledge and belief, the information given in this form is correct and accurate and fully compliant with the Planning and Development Act 2000, as amended, and the Regulations made thereunder.	
6) Signature of person authorised to operate on behalf of the Prospective Applicant:	
Declan Owens - Galetech Energy Services	
Date:	13/03/2026

7) Formal Request:
In accordance with section [32H, ~~37CC, 182F or 287A~~] [delete as appropriate] of the Planning and Development Act 2000, as amended*,* and article 15J of the Planning and Development Regulations 2001, as amended, Cush Wind Limited formally requests to enter into a meeting with Offaly County Council regarding Proposed 3 no. turbine extension to Cush Wind Farm at Galros East, Whigborough, Ballycolin, Eglish, Cush, and Boolinarig Big, Co. Offaly.

8) Information to be included where relevant, with a meeting request under section 32H, 37CC, 182F or 287A of the Planning and Development Act 2000, as amended and article 15J the Planning and Development Regulations 2001, as amended.			
Information	**Enclosed with request**		
(a) A site location map sufficient to identify the land on which the proposed development would be situated	Yes: [✓]	No: [ ]	
(b) A brief description of the nature and purpose of the proposed development and of its possible effects on the environment.	Yes:[✓]	No: [ ]	

(c) A draft layout plan of the proposed development.	Yes:[ ]	No: [ ]	
(d) A description of the details, or groups of details, of the proposed development that, owing to the circumstances set out in paragraph (e) below, are unlikely to be confirmed at the time of the proposed application.	Yes:[ ]	No: [ ]	
(e) A description of the circumstances relating to the proposed development, that indicate that it is appropriate that the proposed application be made and decided, before the prospective applicant has confirmed the details referred to in paragraph (d) above.	Yes:[ ]	No: [ ]	
(f) An undertaking to provide with the proposed application, either - i. two or more options, in respect of each detail or group of details, referred to in paragraph (d) above, containing information on the basis of which the proposed application may be made and decided, or ii. parameters within which each detail referred to in paragraph (d) above will fall and on the basis of which the proposed application may be made and decided, or iii. a combination of (i) and (ii).	Yes:[ ]	No: [ ]	
(g) Such other information, drawings or representations as the prospective applicant may wish to provide or make available.	Yes:[ ]	No: [ ]	N/A: [ ]

Planning Authority Official Use only:
Planning Reference:
Planning Authority Stamp:

Bank of Ireland
BUSINESS ON LINE

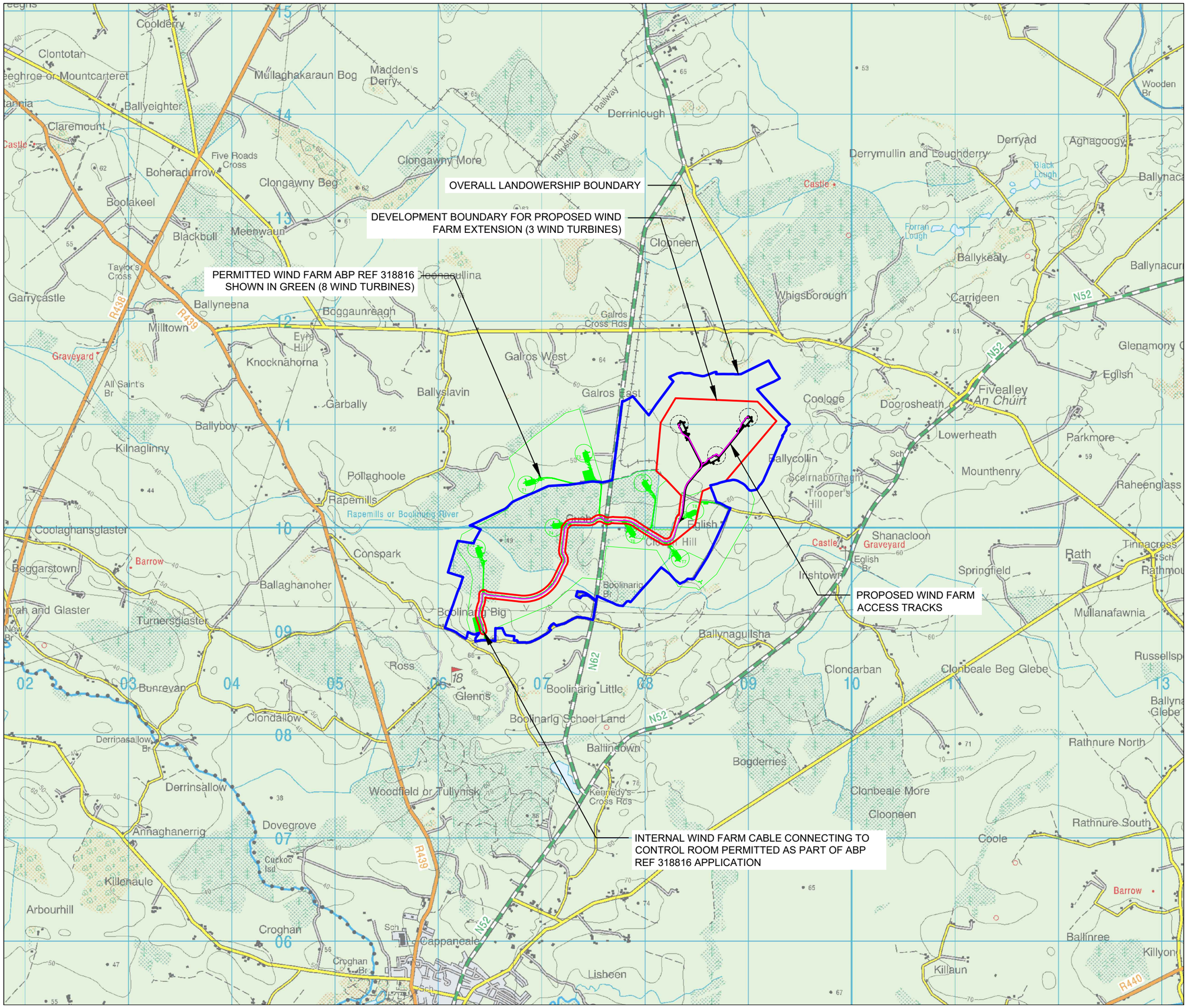
Payment Details

Payment Reference No. 238516161

Printed On
Tuesday, March 03, 2026
12:57:13 PM

Pay From >	STREAM WIND , BAILIEBOROUGH CO CAVAN , 15653899
Pay To >	OFFALY COUNTY COUNCIL , IBANIE64BOFI90190948640672
Payment Details >	€2,500.00 on 04/03/2026, SEPA Payment
Status >	Payment Pending

ANNEX 2 – SITE LOCATION MAP



Legend:

Development Boundary

N

Date:	Rev:	Description:	Drawn By:

Prepared By:

GALETECH ENERGY SERVICES

Galetech Energy Services
Clondargan, Stradone
Co. Cavan, H12 NV06

info@galetechenergyservices.com
www.galetechenergyservices.com

Client: CUSH WIND

Job Title: CUSH WIND FARM EXTENSION

Drawing Title: FIGURE 1.0: OVERALL SITE LOCATION

Drawing No.:	Stage:
CUSH001_PAS_LOC-0.01	PRE-APPLICATION CONSULTATION

Scale:	Date:	Revision No.:
(A3) 1:35,000	18/12/2025	REV 02

Drawn By:	Checked By:	Confirmed By:
EF	DO	DO

ANNEX 3 – DRAFT SITE LAYOUT PLAN

DEVELOPMENT BOUNDARY FOR PROPOSED WIND FARM EXTENSION (3 WIND TURBINES)

PERMITTED WIND FARM ABP REF 318816 SHOWN IN GREEN (8 WIND TURBINES)

T2

T4

INTERNAL WIND FARM CABLE CONNECTING TO CONTROL ROOM PERMITTED AS PART OF ABP REF 318816 APPLICATION

An Chois Cush

Buaile na nArg Mhór

Boolinarig Big

Rapemills River or Boolinarig River

1.98 3.27 7.28 4.16 5.11 3.26 1.03 3.88 8.38 7.22 8.15 30.32 3.86 3.99 5.76 0.97 1.44 3.12 5.52 6.53 2.41 2.13 0.28 3.72 1.46 4.42 1.18 13.73 5.57 1.10 6.30 0.85 4.87 0.39 5.23 1.87 9.18 3.24 1.90 2.67 2.80 2.96 3.77 2.83 2.76

Legend:

Development Boundary

N

OSI © Licence: CYAL50441216 - OS Map Ref. No. 3702 & 3644 at 1:5000 - Prepared Using Irish Transverse Mercator (ITM).

Date:	Rev:	Description:	Drawn By:

Prepared By:

GALETECH ENERGY SERVICES

Galetech Energy Services
Clondargan, Stradone
Co. Cavan, H12 NV06

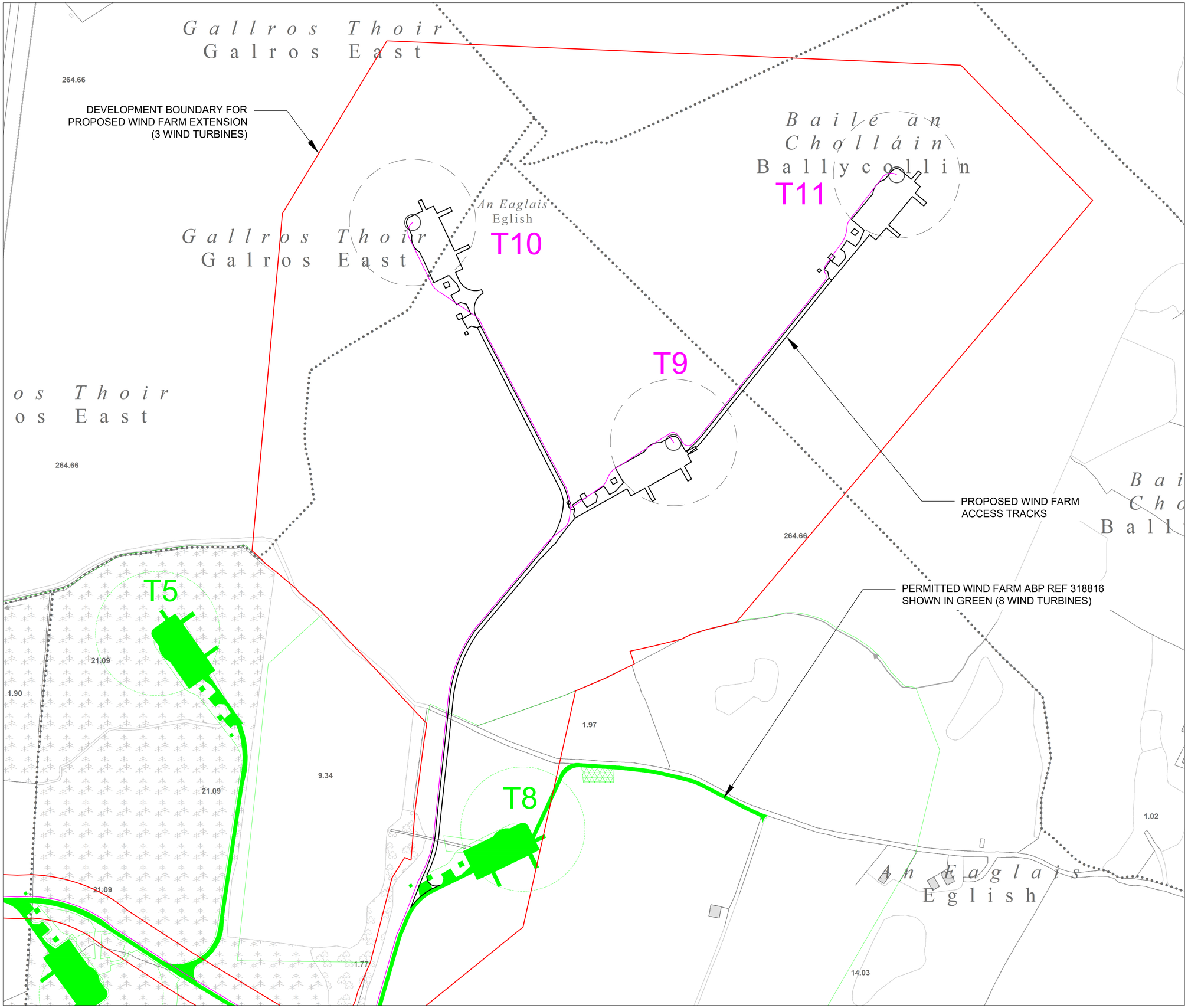
info@galetechenergyservices.com
www.galetechenergyservices.com

Client: CUSH WIND

Job Title: CUSH WIND FARM EXTENSION

Drawing Title: FIGURE 2.1: INDICATIVE SITE LAYOUT

Drawing No.:	Stage:	
CUSH001_PAS_LOC-0.03	PRE-APPLICATION CONSULTATION	
Scale: (A1) 1:2,500	Date: 18/12/2025	Revision No.: REV 02
Drawn By: EF	Checked By: DO	Confirmed By: DO



Legend:

Development Boundary

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OSI © Licence: CYAL50441216 - OS Map Ref. No. 3702 & 3644 at 1:5000 - Prepared Using Irish Transverse Mercator (ITM).

Date:	Rev:	Description:	Drawn By:

Prepared By:

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Clondargan, Stradone
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info@galetechenergyservices.com
www.galetechenergyservices.com

Client:

CUSH WIND

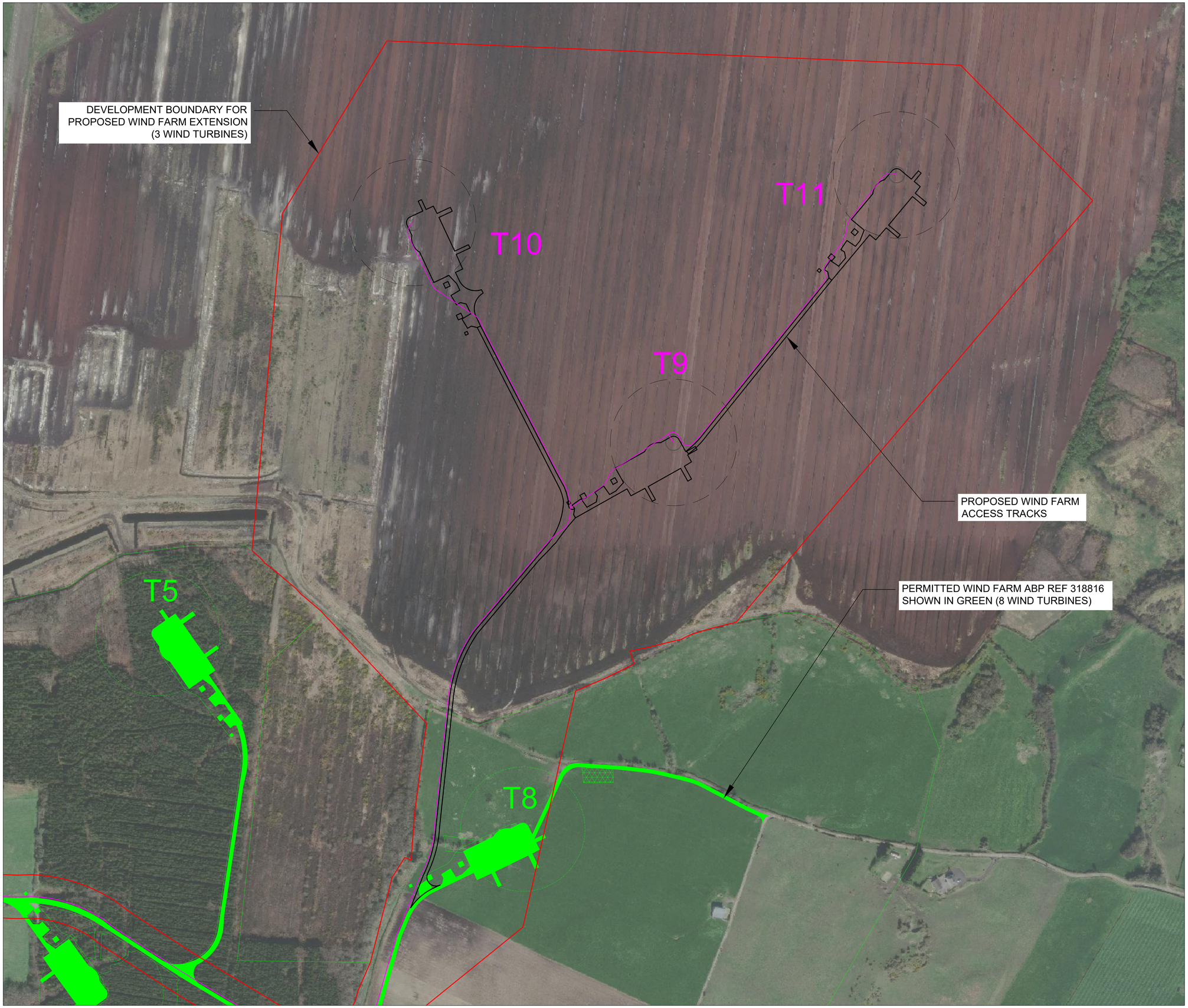
Job Title:

CUSH WIND FARM EXTENSION

Drawing Title:

FIGURE 2.2: INDICATIVE SITE LAYOUT

Drawing No.:	Stage:	
CUSH001_PAS_LOC-0.03	PRE-APPLICATION CONSULTATION	
Scale:	Date:	Revision No.:
(A1) 1:2,500	18/12/2025	REV 02
Drawn By:	Checked By:	Confirmed By:
EF	DO	DO



Legend:

Development Boundary

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OSI © Licence: CYAL50441216 - OS Map Ref. No. 3702 & 3644 at 1:5000 - Prepared Using Irish Transverse Mercator (ITM).

Date:	Rev:	Description:	Drawn By:

Prepared By:

GALETECH ENERGY SERVICES

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Co. Cavan, H12 NV06

info@galetechenergyservices.com
www.galetechenergyservices.com

Client:

CUSH WIND

Job Title:

CUSH WIND FARM EXTENSION

Drawing Title:

FIGURE 2.3: INDICATIVE SITE LAYOUT

Drawing No.:	Stage:
CUSH001_PAS_LOC-0.04	PRE-APPLICATION CONSULTATION

Scale:	Date:	Revision No.:
(A1) 1:2,500	18/12/2025	REV 02

Drawn By:	Checked By:	Confirmed By:
EF	DO	DO

ANNEX 4 – EIA SCOPING REPORT

GALETECH
ENERGY SERVICES

Cush Wind Farm
Phase II

Environmental Impact Assessment Preliminary Scoping Report

Cush Wind Limited

DOCUMENT CONTROL

Stage	Function	Name
Content	Planning Consultant	Declan Owens
Approval	Senior Planning Consultant	Gavin Daly

RECORD OF CHANGES

Revision Number	Issue Date	Summary of Change	Approved
00	15/12/2025	Content	Declan Owens

DISTRIBUTION LIST

#	Purpose	Company	Name (optional)
1	For Environmental Scoping	Various	Various
2			
3			
Notes:			

CONTENTS

1.0 Introduction 1
1.1 The Applicant 1
1.2 The Agent 1
1.3 Purpose of This Report 2
2.0 Environmental Impact Assessment (EIA) 2
2.1 EIA Screening 2
2.2 Environmental Impact Assessment Report (EIAR) 3
2.3 Content of the EIAR 4
3.0 Description of the Project 5
3.1 Wind Turbines 5
3.2 Turbine Foundations 7
3.3 Hardstandings 7
3.4 On-Site Access Tracks 8
3.5 Internal Wind Farm Cabling 8
3.6 Site Drainage and Rehabilitation Works 8
3.7 Turbine Component Haul Route 8
3.8 Grid Connection 10
4.0 Scope of the EIAR 11
4.1 Project Alternatives 11
4.2 Population & Human Health 11
4.3 Biodiversity 12
4.4 Land & Soil 13
4.5 Water 13
4.6 Air Quality & Climate 14
4.7 Landscape 15
4.8 Cultural Heritage 15
4.9 Noise & Vibration 16
4.10 Shadow Flicker 16
4.11 Material Assets 16
5.0 Consultation 17
5.1 Statutory Consultation 17
5.2 Public Consultation 17

1.0 INTRODUCTION

Cush Wind Limited (CWL) ('the Developer') intends to apply for planning permission for the construction and operation of a wind farm, consisting of a 3 no. wind turbine extension to the permitted Cush Wind Farm[1] ('Cush Wind Farm Phase I'), including the construction and operation of a 110kV electricity substation and associated underground electricity line to facilitate the connection of the wind farm to the national electricity network, and all associated site development works ('the project'). The project is located in rural Co. Offaly, approximately 4km north of the town of Birr and c. 28km south-west of Tullamore, Co. Offaly.

The location of the project, in a regional context, is illustrated at **Figure 1** below.

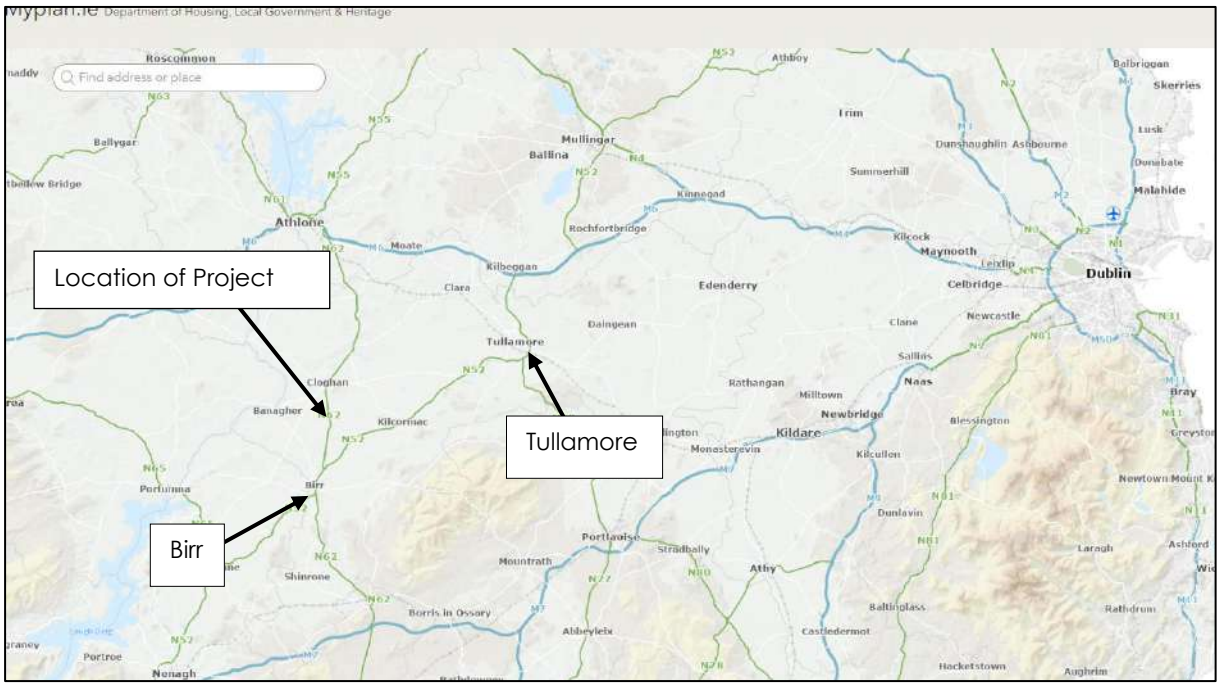

Figure 1: Site Location

1.1 THE APPLICANT

CWL is a renewable energy development company with substantial experience in the renewable industry; the company principals owning and operating a number of permitted and operational wind farms both within Ireland and internationally.

1.2 THE AGENT

Galetech Energy Services (GES) has been commissioned by CWL to coordinate the preparation of an Environmental Impact Assessment Report (EIAR) including the scoping process. GES is an Irish multi-disciplinary renewable energy consultancy that specialises in the project management of planning, environmental and technical engineering services of wind energy developments from project feasibility through to delivery and operation. GES combines the expertise of leading experts in wind farm design, planning and environmental assessment and has extensive experience in managing and coordinating EIAR projects for wind energy and associated electricity grid and substation developments.

[1] An Coimisiún Pleanála Reference: ABP-318816-24

1.3 PURPOSE OF THIS REPORT

This Preliminary Scoping Report has been prepared to provide a high level overview of the project, to allow consultees to inform themselves of the scope of the project and provide comments on information which should be included in the EIAR. The report also sets out to provide an overview of the EIAR scoping process undertaken by the applicant to date.

A comprehensive Scoping Report, detailing the entire scoping process including environmental scoping by appointed consultants, consultation with local communities and the general public, and consultation with statutory consultees will accompany a planning application for the project as an annex to the EIAR.

2.0 ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA is a process required by the European Union (EU) Environmental Impact Assessment Directive 2011/92/EU, as amended by 2014/52/EU, and transposed into Irish law by way of Part X of the Planning & Development Act 2000 (as amended).

EIA is carried out by the relevant competent authority to ensure that projects, where the likelihood of significant effects on the environment cannot be excluded, are subject to a comprehensive and independent examination, analysis and evaluation of their likely significant effects on the environment; including the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects; of both their construction and operational phases, prior to being granted planning permission.

2.1 EIA SCREENING

In accordance with the provisions of the Planning & Development Act 2000 (as amended), EIA is mandatory when certain classes of projects exceed specific sizes and thresholds. Planning applications for such projects must be accompanied by an EIAR. Schedule 5 of the Planning and Development Regulations 2001 (as amended) provides that the following class of development proposal shall be subject to EIA:-

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

The project consists of a 3 no. wind turbine extension to the permitted Cush Wind Farm (Phase I) which will result, of itself, in a total output of greater than 5MW. It is therefore of a scale which exceeds the mandatory threshold for EIA. Furthermore, as the proposed project represents an extension to the previously approved, 8 turbine project (i.e. Cush Wind Farm Phase I), on a cumulative scale, the project exceeds the mandatory threshold for EIA.

In addition to the above, a judgement of the High Court in respect of *O'Grianna & Ors. v. An Bord Pleanála ([2014] IEHC 632)* determined that a wind farm and its connection to the national grid are considered a single indivisible project for the purpose of the EIA Directive, and whilst the project's attendant grid connection is not, of itself, a category or type of development listed as requiring EIA, as the project will form part of an overall development that was formerly subject to EIA, an EIAR will be prepared and submitted to allow the Planning Authority/An Coimisiún Pleanála to undertake a complete in-combination EIA of the overall development.

2.2 ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR)

An EIAR is a written statement of the likely significant effects, if any, which the project, if carried out, will have on the environment. The EIAR consists of a systematic analysis of the project, including its construction, operational and decommissioning phases, in relation to the existing environment. It is an iterative process carried out throughout the full lifecycle of the project design and consenting process so as to allow for preventative and ameliorative action, as necessary, at a point in time when changes can still be made to the project that anticipate, avoid and mitigate any likely significant effects foreseen.

The EIAR is the principal document that informs the EIA process and provides integral information which consenting authorities can use, amongst other considerations, in independently undertaking EIA and informing a decision making process.

The EIAR can also be used by third parties, including members of the public, as part of the public participation process, to evaluate the project and its likely significant environmental effects, and to inform any submissions made to the planning application process.

The EIAR will be prepared in accordance with the provisions contained within Schedule 6 of the Planning and Development Regulations 2001, as amended, which sets out the information to be contained in an EIAR. In addition, the EIAR will take account of the contents of Directive 2014/52/EU (the 2014 EIA Directive), which was adopted in the EU on 16 April 2014, amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. The 2014 EIA Directive was transposed into Irish planning law from the 1 September 2018 via the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

2.2.1 PURPOSE OF THE EIAR

The purpose of the EIAR is to protect the environment and inform the decision-making processes. The EIAR provides for a system of sharing information about the environment, within which a project sits, and enables effects to be foreseen and prevented during the design and consent stages. The purpose of the EIAR is to:-

- Anticipate, avoid and reduce significant effects;
- Assess and mitigate effects;
- Maintain objectivity;
- Ensure clarity and quality;
- Provide relevant information to decision makers; and
- Facilitate better consultation.

It is a statutory requirement that the EIAR pays particular regard to the:-

- Key alternatives;
- Proposed project;
- Receiving environment;
- Likely significant effects;
- Mitigation and monitoring measures; and
- Residual effects.

A non-technical summary must also be provided.

2.2.2 EIAR METHODOLOGY

The EPA have published a set of revised *Guidelines on the Information to be contained*

within an EIAR and these guidelines have been updated to reflect the 2014 EIA Directive and the provisions contained therein. The guidelines have been adopted (May 2022) and provide an update on the previous guidelines which were initially published in 2002. The guidelines are a statutory document and provide guidance on the role of the EIAR in the EIA process, the key activities involved in the EIAR process, and guidance on the presentation of the information contained in the EIAR.

The EIAR team will have regard to these guidelines in the preparation of the EIAR documents; additionally the team will also have regard to best practice guidance for each individual environmental topic covered by the EIAR.

2.3 CONTENT OF THE EIAR

The EPA guidelines include a 7 no. stage approach (sequence) in the production of the EIAR. This includes:-

- Screening;
- Scoping;
- Consideration of Alternatives;
- Project Description;
- Baseline Description;
- Assessment of Likely Significant Impacts; and
- Mitigation/Monitoring.

The guidelines outline that adherence to this sequence ensures an objective and systematic approach is achieved. Using this sequence, the environment is described using a number of specific headings and this provides for a separate section for each topic. The description of the existing environment, the likely significant effects (positive, negative, & cumulative), mitigation and monitoring measures, and residual impacts are then grouped together in each section, covering each topic. This format allows for ease of investigation into each topic and for specialist studies/input to be integrated seamlessly. The structure of this EIAR is set out below:-

- Introduction;
- Assessment of Project Alternatives;
- Description of the Project;
- Population and Human Health;
- Biodiversity;
- Land & Soil;
- Water;
- Air Quality;
- Climate;
- Landscape;
- Cultural Heritage;
- Noise & Vibration;
- Shadow Flicker;
- Material Assets; and,
- Interaction of the Foregoing.

Each chapter of the EIAR will be structured using the following format:

- Introduction;
- Description of the Existing Environment;
- Description of Likely Effects;
- Mitigation & Monitoring Measures;
- Residual Effects; and

- Conclusion.

3.0 DESCRIPTION OF THE PROJECT

The project consists of the construction and operation of a wind farm, consisting of a 3 no. wind turbine extension to the permitted Cush Wind Farm[2] ('Cush Wind Farm Phase I'), including crane hardstandings, access tracks, internal wind farm underground cabling, spoil deposition areas, and associated works as well as the construction and operation of a 110kV electricity substation (Buildings, compound and Battery Energy Storage System), temporary construction compound, and associated underground electricity line to facilitate the connection of the wind farm to the national electricity network, and all associated site development works.

The project will also include a range of off-site or secondary developments including turbine component haul route, construction material haul routes and the importation of materials.

Where the 'project' or 'proposed project' is referred to in this Preliminary Scoping Report this encompasses the entirety of the project, as described above, for the purposes of EIA in accordance with the EIA Directive.

Where the 'proposed wind farm' is referred to, this refers to turbines and associated foundations and hardstanding areas, access tracks, internal wind farm underground cabling, site drainage and rehabilitation works (including peat/spoil management/deposition and environmental stabilsation), turbine component haul route and all associated site development works.

Where the 'proposed grid connection' is referred to, this refers to the 110kV electricity substation (Buildings, compound and Battery Energy Storage System), temporary construction compound and associated underground electricity line connecting to the electrical control building permitted as part of Cush Wind Farm Phase I, and all ancillary works and apparatus.

Site plans and drawings are provided at **Annex 1**.

The table below outlines the location of each of the proposed, 3 no., wind turbines.

ID	Easting	Northing
T9	608636	710729
T10	608275	711034
T11	608944	711100

Table 1: Wind Turbine Coordinates

Coordinates provided in Irish Transverse Mercator (ITM)

3.1 WIND TURBINES

The proposed turbines will each consist of a three-bladed rotor attached to a nacelle (hub) which contains the mechanical drive train and electrical generation mechanisms. A typical wind turbine is shown at **Figure 2** below. The blades will be constructed of glass reinforced plastic and lightning protection conduits are integral to their constriction. The nacelle is supported on a steel tower of tubular construction. The colour of the proposed turbines and blades will be white, off-white or light grey in

[2] An Coimisiún Pleanála Reference: ABP-318816-24

accordance with the *Wind Energy Development Guidelines for Planning Authorities 2006* and as determined by the Planning Authority.

Given the available wind resource at the project site, a wind turbine with an overall height of up to 200 metres is presently considered to be the most suitable turbine size for the subject site. It is important to stress, however, that the exact model and manufacturer of the turbine has not yet been chosen and remains under consideration. In this regard it is the intention of the developer to request a design flexibility meeting with the Planning Authority, under the provisions of Section 32H (1) of the Planning Act, in respect of the level of design flexibility to be included in the planning application for the proposed wind farm site.

The proposed wind turbines to be installed on the proposed wind farm site will have the following dimension range:

- Turbine Tip Height – Maximum height 200 metres, Minimum height 199.1 metres
- Hub Height – Maximum height 120.9 metres, Minimum height 111.6 metres
- Rotor Diameter: - Maximum diameter 175 metre, Minimum diameter 158 metres

Various types and sizes of wind turbines, within the proposed range outlined above, will be selected for the purpose of assessing the likely environmental effects of the turbines throughout this EIAR. This allows for a robust assessment of the likely environmental effects of wind turbines within the proposed dimensional range.

The development footprint of the Proposed Project within the EIAR, will be based on the maximum potential footprint for all of the infrastructural elements. This precautionary approach is taken as the assessment of the maximum development footprint and will therefore, in the absence of mitigation, give rise to the greatest potential for significant effects. Should the development footprint be less than the maximum, this in itself will further mitigate the assessed effects.

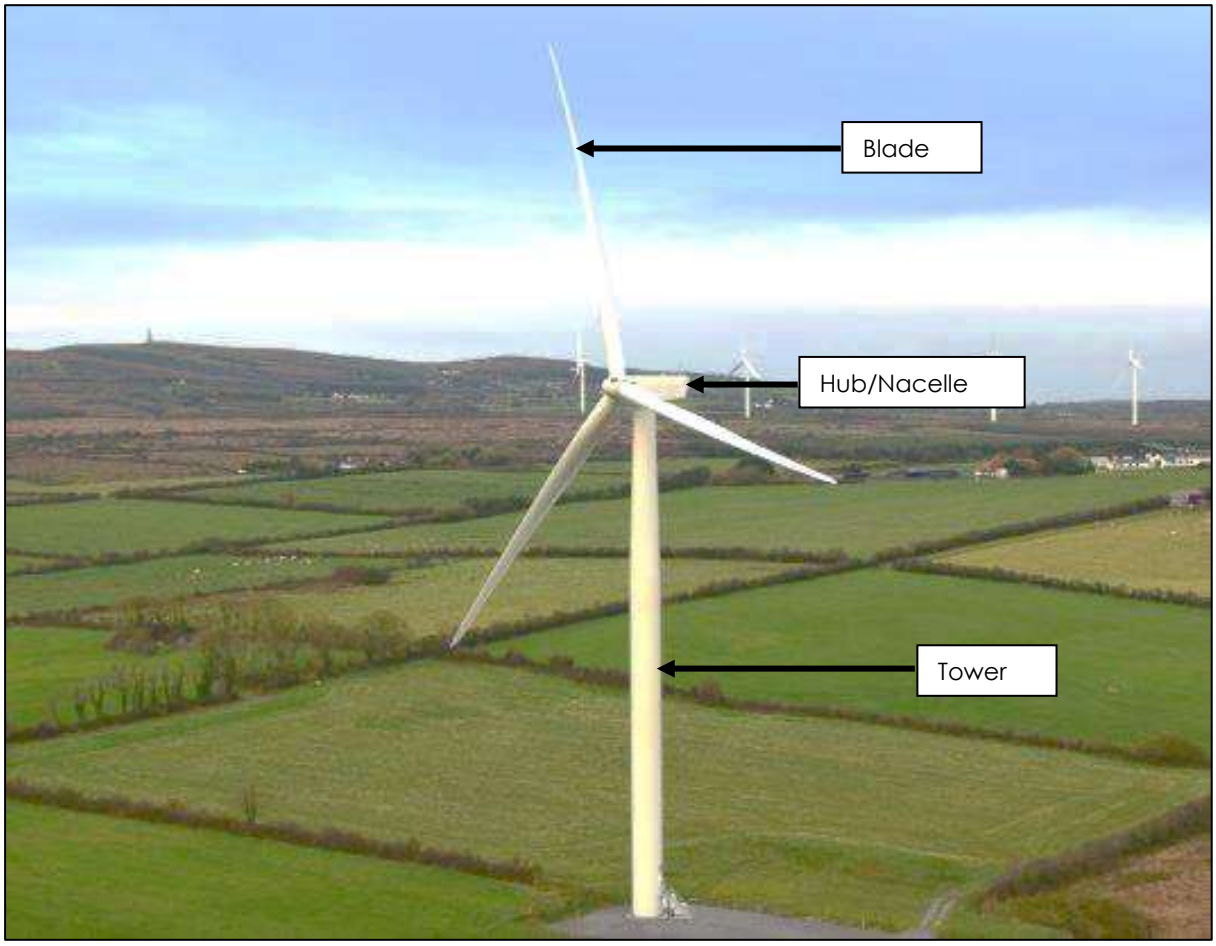

Figure 2: Typical Wind Turbine

3.2 TURBINE FOUNDATIONS

Each turbine tower is secured to a steel ring foundation which can comprise either a reinforced concrete (gravity) foundation or a piled foundation. The precise type of foundation to be used for each turbine will depend upon the specific ground conditions at each location as well as specific turbine type selected from the competitive tender process. Ground conditions shall be established through detailed technical design and post-consent geotechnical investigations prior to construction, as is standard best-practice in all construction projects.

The depth of excavation required for each wind turbine foundation will vary depending on precise ground conditions and turbine type. The diameter of a standard gravity raft foundation will be c. 28.9m; whilst the diameter of a piled foundation would, if deemed to be required, be c. 22m. Foundation depths will range between 3m and 5m in depth.

3.3 HARDSTANDINGS

Hardstanding areas shall be established adjacent to each turbine to facilitate crane operations for erection and occasionally for maintenance and decommissioning. Each hardstanding area will consist of levelled and compacted (unsealed) hardcore. However, the precise dimensions, arrangement and position of the hardstanding area will be determined by the chosen turbine supplier and, as such, cannot be confirmed until a turbine model has been chosen.

Temporary set-down areas will be located adjacent to each hardstanding area

during the construction phase to accommodate turbine components following delivery to site. Following the erection of turbines, these set-down areas will be reinstated to their pre-construction condition.

3.4 On-Site Access Tracks

The construction of new access tracks; likely to be of floated construction; the precise length of which will be confirmed in due course, will be required for construction purposes and for site access during the operation phase. The access tracks shall be similar to normal agricultural tracks but with a slightly wider typical running width of approximately 5m.

Proposed on-site access track will join with the site access track permitted as part of the permitted Cush Wind Farm Phase I and it is proposed to use both the construction phase and operation phase site entrances, permitted as part of Phase I, to access the proposed wind farm. The permitted construction phase site entrance is located on the eastern side of the N62 national road and the permitted operation phase site entrance is located to the east of the proposed wind farm, accessed from the L300321 local road.

3.5 Internal Wind Farm Cabling

Electrical and communications cabling will be required to connect each turbine to the wind farm control building which was permitted as part of Cush Wind Farm Phase I. The cables will be located underground, installed in ducting within trenches of 1m in depth, and will generally follow the alignment of on-site access tracks.

3.6 Site Drainage and Rehabilitation Works

The project's proposed wind farm is located on lands which make up part of the Galros Bog. Galros Bog, as part of the Bord Na Mona group of bogs, was in industrial peat production from the 1950's up until 2019 and supplied peat to the nearby Derrinlough Briquette Factory. Industrial peat harvesting has now ceased, as of 2021, across the whole of Galros Bog. As part of their obligations under Integrated Pollution Control (IPC) licencing, Bord Na Mona have prepared a draft Rehabilitation Plan (2025) for the bog. CWL have engaged with Bord Na Mona throughout the drafting process in order to ensure that the proposed project is satisfactorily integrated into the rehabilitation measures and to ensure that there is a consistent, coherent and targeted plan in place, which ultimately will secure environmental stabilisation across Galros Bog.

The design of the proposed wind farm, including the Site Drainage Plan (SDP), which makes up an integral part of the Surface Water Management Plan (SWMP)and will supplement the EIAR for the project, has been developed in consideration of and in accordance with the Galros Bog Rehabilitation Plan. Furthermore, peat and spoil management measures, including the use of peat/spoil deposition areas, have been designed to be fully cognisant and compliant with the measures identified within the Rehabilitation Plan. The project includes the provision of peat/spoil deposition areas, including 1 no. designated spoil deposition area, and the use of areas surrounding access tracks and turbine hardstand areas, on the proposed wind farm site, as well as 3 no. spoil deposition areas (including 1 no. spoil deposition berm) on the proposed grid connection site.

3.7 Turbine Component Haul Route

As per the permitted Cush Wind Farm Phase I, it is envisaged that the turbines will be

transported from the Port of Galway using the N6, M6, N52, and N62. Temporary works; including the removal of street furniture (street lighting, signage, etc) and verge/roundabout island hardcoring; will be required at various locations along the route; however, substantial and permanent works are not currently assessed as being necessary.

It is envisaged that the turbine components will be delivered to the site at the same time as the permitted Cush Wind Farm Phase I and it is proposed to use the temporary construction phase site entrance and associated access track, permitted as part of Phase I, in order to access the proposed wind farm site.

Figure 3: Indicative Turbine Component Haul Route from Galway Port

Between the Port of Galway to the junction of the M6 and N52, it is likely that any necessary works will relate to the temporary removal of street furniture (street lights, road signs, bollards, etc.), and the temporary hardcoring/gravelling of roadside verges or roundabout islands.

From the junction of the M6 and N52, the haul route follows the N52 to its junction with the N62. Along this section of the route, which passes around the town of Tullamore and through the small town of Kilcormac, temporary hardcore will be laid on roundabout central islands and road signs, street furniture and street lighting temporarily removed at a number of locations; however, the extent of works will be minimal and will be reinstated immediately following the delivery of turbine components.

Due to the existing alignment of the junction of the N52 and N62, turbine components; including blades; are assessed to be incapable to navigating the junction. Accordingly, it will be necessary to undertake a reverse manoeuvre. The reverse manoeuvre involves reversing the abnormal load from the N62 onto private lands, controlled by the Developer, before making a forward movement along the N62 towards the construction phase site entrances. Within the private lands, an area will be hardcored to accommodate HGVs associated with the delivery of turbine components. The works necessary to undertake this manoeuvre will result in the temporary removal of road signs and street lighting and the removal and

replacement of a small section of tree lined hedgerow and fence on the eastern side of the junction. In line with the other proposed temporary works along the haul route, the extent of works will be minimal and will be reinstated immediately following the delivery of turbine components.

Following the delivery of turbine components, the public road carriageway will be returned to its current condition.

3.8 GRID CONNECTION

The proposed grid connection includes a new 110kV 'loop-in loop-out' electricity substation located adjacent to the existing Dallow T 110kV overhead transmission line and approximately 2.5km of underground electricity line to connect the proposed substation to the control building associated with the permitted Cush Wind Farm. The electricity substation, and associated infrastructure, will be located in the townland of Ballaghanoher, Co. Offaly.

The location of the electricity substation and route of the electricity line is illustrated at **Annex 1**.

ELECTRICITY SUBSTATION

The proposed electricity substation, and associated infrastructure, will be located in the townland of Ballaghanoher. The electricity substation shall comprise the following elements:-

- A compound with a hardcore surface enclosed by security fencing and gates containing electrical plant and equipment;
- 1 no. soil deposition berm and 2 no. soil deposition areas;
- 2 no. interface masts and 110kV underground electrical lines to facilitate connection of the proposed substation to the existing Dallow T 110kV overhead transmission line;
- A containerised battery energy storage system and compound;
- 2 no. electrical control buildings containing electrical plant and equipment; and
- Associated site development works including site entrance, construction of an access track, site drainage infrastructure, landscaping, and temporary construction compound area.

A new site entrance and associated access track is proposed as part of the proposed grid connection. A new site entrance will be required from the L7015-1 local road which will facilitate construction and operation phase access to the proposed substation and battery energy storage system, as part of the proposed grid connection.

The electricity substation is centred at the coordinates provided at **Table 1** below.

ID	Easting	Northing	Approximate Altitude (mAOD)
Substation	604473	709120	40

Table 2: Proposed Substation Location

UNDERGROUND ELECTRICITY LINE

In order to connect the proposed substation to the control building associated with

the permitted Cush Wind Farm, it is proposed to install c. 2.5km of 33kV underground electricity line ('UGL'). The UGL will be installed within ducting in an excavated trench of c. 1.2m deep and c. 1.0m wide and pulled through the ducting in sections of c. 1,200m in length or depending on the length of cable required. Cable (electricity line) lengths will be connected at designated 'jointing plinths' to be installed along the route. Jointing plinths will comprise a concrete slab of c. 2m2 which will be installed within the trench to provide a firm foundation for the joining of the electricity line. Traditional joint bay chambers will not be required. Jointing plinths will, insofar as possible, be located within private lands to minimise the extent of infrastructure within the public road network.

Presently 2 no. UGL routes are under consideration both of which are located within the townlands of Boolinarig Big, Ross, Glenns, and Ballaghanoher. Each route option follows a similar connection path, with one option being primarily located on private lands and the other including lands along the public road network. The route options are both approximately 2.5km in length.

4.0 SCOPE OF THE EIAR

The EIAR will provide an assessment of effects during the construction, operation and decommissioning of the project for each the environmental topics described in this section.

This section provides a brief overview of the level of scoping which has taken place to date, as well as the potential effects which have been identified and the proposed methodology for further assessment in the EIAR.

4.1 PROJECT ALTERNATIVES

Prior to the selection of the development under consideration, CWL undertook an extensive iterative process to assess a range of alternatives at both the macro-level and micro-level. The assessment of alternatives ranged from alternative site locations, site layouts and designs, technologies, grid connection options and haul route options. This process has so far determined that the development as proposed represents the most environmentally sensitive project having regard to all reasonable available alternatives.

However, the project in its current layout and design remains subject to further revision in line with continued project scoping and ongoing statutory and non-statutory consultation.

4.2 POPULATION & HUMAN HEALTH

As part the scoping process, a desk-based review of existing conditions in the area has been undertaken. It is anticipated that, during the construction phase, effects on community, recreation and tourism receptors will primarily be associated with traffic, noise, air quality and water impacts arising from the project. Once the project becomes operational, likely effects will primarily be associated with visual impact and noise impact.

In terms of human health, it is noted that impacts here will be closely linked with other environmental aspects associated with the project which are relevant to human health, namely soils, water, air quality, noise, shadow flicker, and radiation (grid connection). Other effects may include employment effects and impacts on the local economy.

The potential likely effects identified above along with potential cumulative effects

with other wind farms and infrastructure projects, will be considered within the 'Population and Human Health' chapter of the EIAR. Effects which are not considered 'likely' or 'significant' have been scoped out from further assessment and include;

- Safety issues connected with the operation of wind turbines;
- Health effects of wind turbine syndrome; and
- Effects of wind farms on property values as being a matter that is not relevant to the proper planning and sustainable development of the area.

The EIAR chapter will also take into consideration the results of other assessments in the EIAR which have relevance to health, as identified above. Recognised health evaluation criteria will be used and accurate baseline data provided. The findings of these assessments will be cross referenced in order to avoid duplication of findings.

Employment effects and direct expenditure will be quantified using data provided by CWL and, where necessary using standard industry data. Direct, indirect and induced effects on the local economy will be assessed using an economic model. Opportunities for local business and the local labour market to be involved in supply chain activities will be identified and where possible quantified.

4.3 BIODIVERSITY

Early stage biodiversity scoping has been undertaken on the site in order to inform this Preliminary Scoping Report. This scoping process has included both desk-based and field-based research. The desk-based research has included a review of available data sources and this has been supplemented by on-site walkovers and field surveys. These surveys have been ongoing for the past number of years and include bat and bird surveys which have been undertaken to NatureScot standards, mammal surveys, and habitat surveys, including the identification and classification of habitats within the site.

The subject site is not located within an area designated for nature conservation as part of the European Union Natura 2000 network or a nationally designated nature conservation site, nor is it assessed as being located within/on any particularly sensitive habitat.

While the subject site is not located within or in the immediate proximity of any designated nature conservation sites; it is relatively close to a number of Special Protection Areas (SPAs), Special Areas of Conservation (SACs), Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs). A number of these designated sites are associated with the River Shannon catchment. Therefore, GES considers the wider environment to be moderately sensitive from a biodiversity perspective. The planning application will also be accompanied by a separate Appropriate Assessment Screening Report [or Natura Impact Statement (NIS) if required] which will provide an assessment of the effects on the Natura 2000 network, in accordance with the Habitats Directive.

This early stage scoping work has identified a number of potential biodiversity effects, including:-

- Direct loss of habitat from the construction of the project;
- Direct/Indirect damage to adjacent habitats during construction;
- Effects during construction on the hydrology of water dependant habitats;

- Effects on water quality both at a local level and regional level due to pollution run-off during both the construction and operation phases;
- Effects on aquatic species during construction or due to pollution events;
- Disturbance to local wildlife, including loss of habitat, disturbance and displacement;
- Collision risk to bats and birds;
- Damage to or habitat loss of important wildlife corridors during construction;
- Effects on migrating birds, whereby dispersal or migration routes are affected by the placement of turbines; and
- Effects on the conservation status or constituent parts of designated sites.

The EIAR chapter will address the nationally designated sites, terrestrial and freshwater (aquatic) habits and species, including those of conservation concern on and in close proximity to the project site, including the proposed grid connection. The ecological evaluation of the site and its biodiversity will be assessed in accordance with recognised best practice manuals. Once a value has been assigned to identified ecological receptors, the potential impact and effect of the project will be fully assessed using the criteria outlined in various guidelines including CIEEM (2016)[3]. The effects will be assessed under a number of parameters such as magnitude, extent, timing, frequency, duration, and reversibility. The impact significance criteria outlined by the EPA (2022) will be used where applicable.

4.4 LAND & SOIL

As part of the initial scoping process, a desk-based review of the existing environment in the area has been undertaken. This has been completed using a series of available desktop resources including mapping and guidance. It is anticipated that, during the construction phase, effects on land and soil will primarily be associated with impacts on topsoil, subsoil, and bedrock resulting from excavation activities, potential contamination of soil associated with any leakages or spillages, erosion of exposed subsoil, and potential for ground instability and failure. It is anticipated that any effects associated with decommissioning may be similar but of a reduced magnitude.

In terms of operational phase effects, leaks and spillages from both vehicular traffic and from oils and hydrocarbons have been identified as potential effects. Cumulative effects with nearby wind farm developments and infrastructure projects will also be considered during the EIAR process.

The baseline data gathered during the scoping assessment, identified above, will be supplemented by further site specific studies and assessments within the project site and wider study area.

4.5 WATER

An initial desk-based review of existing conditions in the area has been undertaken. This has been completed using a series of available desktop resources including mapping and guidance. It is anticipated that, during the construction phase, effects on the water environment could include:-

- Ground water levels during excavation;

[3] CIEEM, Guidelines for Ecological Impact Assessment in the UK and Ireland, January 2016.

- Surface water quality;
- Accidental spillage which could result in the release of hydrocarbons during construction and storage;
- Groundwater and surface water contamination;
- Release of cement based products and the associated impact of alkaline in the water supply;
- Morphological changes to surface watercourses and drainage patterns; and
- Effects on hydrologically connected sites.

The effects associated with decommissioning of the project are considered likely to be similar to those associated with construction but of reduced magnitude

In terms of operational phase effects, it is likely that progressive replacement of the vegetated surface with impermeable surfaces could result in an increase in the proportion of surface water runoff reaching the surface water drainage network. During rainfall events, additional runoff coupled with increased velocity of flow could increase hydraulic loading, resulting in erosion of watercourses and impact on aquatic ecosystems.

The baseline data gathered during the scoping assessment, identified above, will be supplemented by further site specific studies and assessments within the project site and wider study area. It is also noted that some of the potential effects associated with the water environment may be assessed in other chapters of the EIAR e.g. 'Land & Soil'. The EIAR will consider such interactions to ensure that effects are cross-referenced between topics but that duplication of assessment does not take place.

4.6 Air Quality & Climate

A desktop review of available baseline air quality data within the study area has been undertaken using the following data sources:-

- Environmental Protection Agency – National Ambient Air Quality Monitoring Data Archive;
- Environmental Protection Agency – Air Quality in Ireland 2023 Report;
- Dublin Regional Air Quality Plan 2021;
- National Parks and Wildlife Service Maps; and
- Environmental Protection Agency – Integrated Pollution Control Licences.

Effects which may arise, and will be fully evaluated, as a result of the construction phase include:-

- Construction dust emissions and nuisance dust;
- Emissions from Heavy Goods Vehicles (HGVs) and on site construction plant and equipment which may give rise to emissions; and
- Greenhouse gas (GHG) emissions from construction traffic and embodied energy from construction materials will increase Ireland's GHG emissions potentially causing climate change.

Operational phase effects on air quality and climate are likely to be limited to impacts created by emissions from maintenance related vehicular traffic. It is also noted that the generation of electricity due to the installation of the wind farm will lead to a net

saving in terms of emissions and is, therefore, likely to result in a positive effect. The extent of this effect will be fully quantified.

Overall the impact assessment process will involve assigning the receptor a sensitivity rating based on specific characteristics, identifying and characterising the magnitude of effect, and assessing the significance of any residual effects (after mitigation). A series of mitigation measures to minimise any foreseen impacts for the construction, operational and decommissioning phases of the project will be proposed, as required, in the EIAR.

4.7 LANDSCAPE

The assessment of landscape and visual impacts has two separate but closely linked aspects. The first is landscape character impact or landscape impact i.e. the effects of the project on the fabric or structure of the landscape as perceived by people. The second is visual impact i.e. the extent to which the wind turbines can be seen in the context of the surrounding landscape within which they sit.

The project includes wind turbines which have the potential to have significant landscape and visual impacts. Potential effects include:-

- Effects on landscape features, views, routes, and areas described in the County Development Plan and landscape character assessments;
- Changes to landscape and townscape character;
- Effects on designated landscape, views/prospects, conservation sites, and other special areas of interest; and
- Effects during construction and decommissioning.

In order to assess the magnitude of impact associated with the project, a Landscape and Visual Impact Assessment (LVIA) will be prepared, in accordance with Guidelines for LVIA, 2013[4]. The significance of landscape and visual effects will be assessed in accordance with a significance matrix which is based on the sensitivity of the landscape or visual resource versus the magnitude of impact.

Zone of Theoretical Visibility Mapping (ZTVs) will be prepared based on the *Wind Energy Development Guidelines for Planning Authorities 2006* (or as may be superseded). The ZTVs will illustrate the study area, extending to 20km around the site, and highlight the areas where the project will theoretically be seen as well as highlighting the cumulative visual impact arising from any surrounding or nearby wind farms. Photo-realistic images ('photomontages') will also be prepared from a selected range of viewshed locations which are deemed to present a critical view of the project.

4.8 CULTURAL HERITAGE

The project has the potential to have both construction, operational and decommissioning phase effects on Cultural Heritage. Potential construction effects include impacts on recorded monuments, impacts on previously unrecorded archaeological remains which may exist within the area of land take, and visual or noise effects during construction.

Operational phase effects are likely to include visual impact on the recorded monuments located within the study area. It is also noted that operational phase cumulative effects on archaeological, architectural or cultural heritage remains could

[4] Landscape Institute Publication

occur in combination with other existing, permitted or proposed developments.

In addition, the visual impact assessment (see **Section 4.7**) will incorporate the effects on archaeological or architectural features in the vicinity.

4.9 Noise & Vibration

The project includes the erection and operation of wind turbines, the development of the associated grid connection infrastructure, as well as access tracks and hardstandings. The construction of each of these individual facets of the development could give rise to noise and vibration effects.

Construction effects may include general construction noise from plant/machinery operating on the site and vibration from construction activities. Operational phase effects include noise impacts at noise sensitive locations (e.g. dwellings) emanating from the operational wind turbines and noise emanating from the operational substation.

The Noise & Vibration chapter will identify representative baseline noise levels, provide predictive modelling of noise exposure, clearly outline the predicted changes to the noise environment, evaluate the exposure level against the most recent noise guidelines, and identify any mitigation measures which are applicable/necessary.

4.10 Shadow Flicker

The EIAR will assess the effects on human health from shadow flicker, i.e. the moving shadows cast by the turbine blades in times of direct sunlight and the resultant effect that can have on nearby properties. In times of direct sunshine, wind turbine blades could cast moving shadows on residences in close proximity to the turbines. At certain times of the year, the moving shadows of the turbines blades can periodically reduce light to a room causing the light to appear to flicker.

The Shadow Flicker chapter of the EIAR will comprise a detailed assessment of the likelihood of shadow flicker affecting local receptors during the operation of the project. The assessment will be based on detailed shadow flicker prediction modelling for each dwelling within a specified distance of a turbine. An assessment will be made to establish if the project will comply with shadow flicker limits prescribed within the *Wind Energy Development Guidelines for Planning Authorities (2006)* or any superseding guidelines. Proven and recognised technological mitigation will be introduced where necessary and appropriate.

4.11 Material Assets

4.11.1 Transport & Access

The assessment of traffic and roads will include an examination of the existing road network surrounding the site, as well as reviewing the likely haul route for the delivery of the wind turbine components and construction materials to the project site.

The proposal is likely to have both construction and operational effects in terms of transport and access. Construction effects are likely to include increased traffic flows, changes to the traffic composition, traffic disruption, reduction in safety and degradation of road surfaces. Operational stage impacts on traffic are likely to be much less than that associated with the construction stage; however, the level of impact will be examined in line with the operational life span of the project.

The 'Transport & Access' section will undertake a range of assessments including the

capacity of the turbine component haul route to accommodate abnormal loads, an identification of 'pinch-points' where temporary off-site works may be required, an appraisal of any damage to road structures or surfaces, and a determination of the effects of construction and operational phase traffic movements. The capacity of the site access to accommodate and serve the project will also be assessed.

4.11.2 TELECOMMUNICATIONS

The Telecommunications section will undertake an assessment to determine if the project will result in any impacts on existing telecommunication links. This assessment will be based on a desktop appraisal of existing telecommunication masts in the wider area and consultation with service providers in the region.

5.0 CONSULTATION

5.1 STATUTORY CONSULTATION

A variety of statutory and non-statutory organisations have been and will continue to be consulted during the scoping process to gather their views on the likelihood of significant environmental effects arising from the construction, operation and decommissioning of the project.

5.2 PUBLIC CONSULTATION

Extensive public consultation took place as part of the consultation process associated with Phase I of the wind farm. Public consultation for the proposed project is to be commenced shortly, at the pre-planning stage, as a means of identifying public opinion and further guiding the design of the project.

ANNEX 1 – MAPS AND DRAWINGS

EXISTING 110kV OVERHEAD LINE

OVERALL LANDOWERSHIP BOUNDARY

DEVELOPMENT BOUNDARY FOR PROPOSED WIND FARM EXTENSION (3 WIND TURBINES)

PERMITTED WIND FARM ABP REF 318816 SHOWN IN CYAN (8 WIND TURBINES)

PROPOSED WIND FARM ACCESS TRACKS

INTERNAL WIND FARM CABLE CONNECTING TO CONTROL ROOM PERMITTED AS PART OF ABP REF 318816 APPLICATION & PROPOSED POINT OF CONNECTION TO PROPOSED ELECTRICITY SUBSTATION

UNDERGROUND ELECTRICITY CABLE FROM WIND FARM (ALTERNATIVE ROUTE)

PROPOSED ELECTRICITY SUBSTATION

Legend:

- Development Boundary
- Electricity Cable Route
- Permitted Infrastructure
- Proposed Infrastructure
- Proposed Electricity Substation
- Proposed Alternative Cable Route

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Date:	Rev:	Description:	Drawn By:

Prepared By:

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Client: CUSH WIND

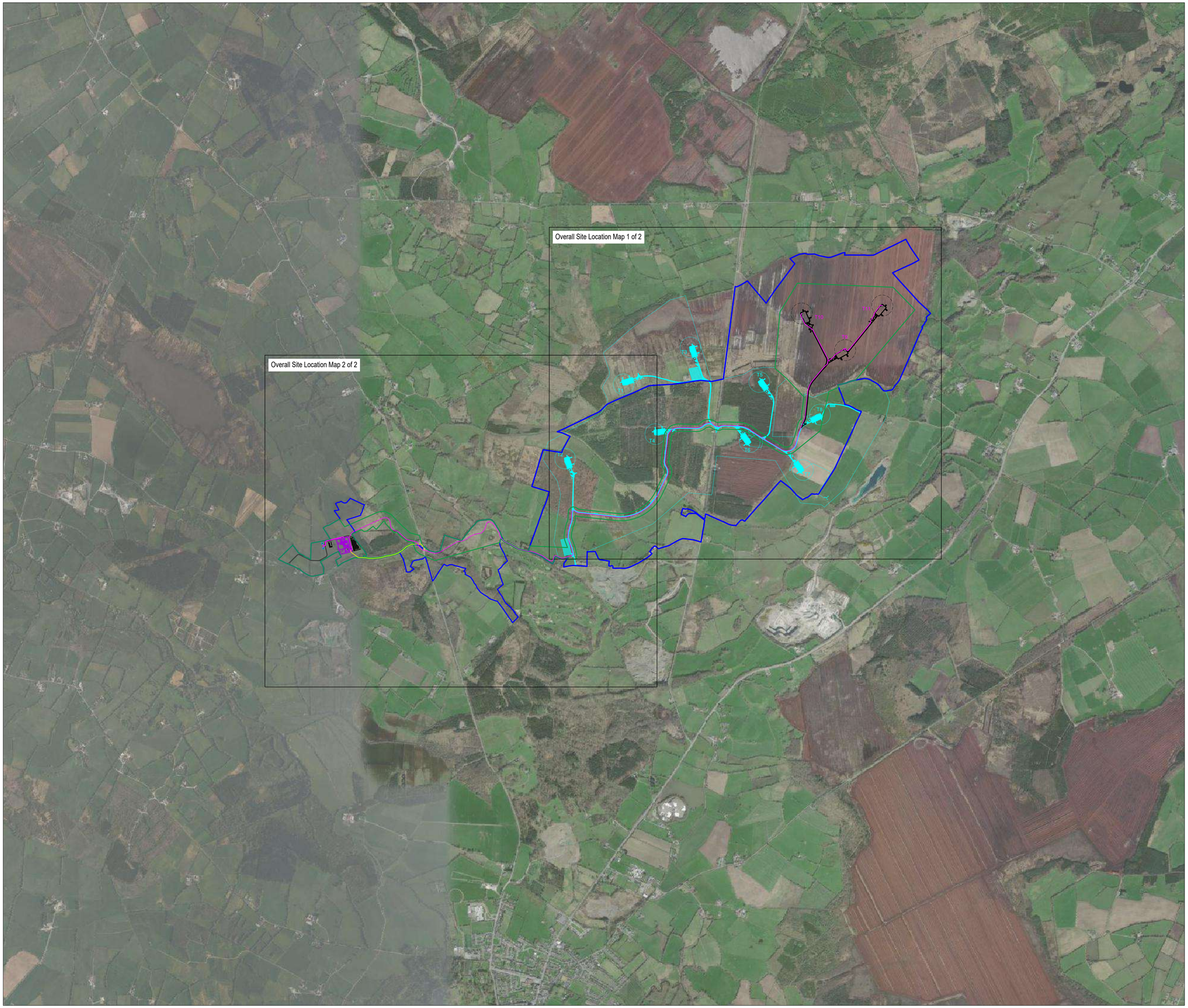
Job Title: CUSH WIND FARM EXTENSION

Drawing Title: OVERVIEW MAP (1:15,000)

Drawing No.:	Stage:
CUSH001_SCOP_LOC-0.01	SCOPING

Scale:	Date:	Revision No.:
(A1) 1:15,000	01/01/2026	REV 00

Drawn By:	Checked By:	Confirmed By:
EF	DO	DO



Legend:

- Development Boundary
- Electricity Cable Route
- Permitted Infrastructure
- Proposed Infrastructure
- Proposed Electricity Substation
- Proposed Alternative Cable Route

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Date:	Rev:	Description:	Drawn By:

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Client:

CUSH WIND

Job Title:

CUSH WIND FARM EXTENSION

Drawing Title:

OVERALL SITE LOCATION MAP
DRAWING KEY
(1:15,000)

Drawing No.:	Stage:	
CUSH001_SCOP_LOC-0.02	SCOPING	
Scale:	Date:	Revision No.:
(A1) 1:15,000	01/01/2026	REV 00
Drawn By:	Checked By:	Confirmed By:
EF	DO	DO

PROPOSED WIND FARM ACCESS TRACKS

DEVELOPMENT BOUNDARY FOR PROPOSED WIND FARM EXTENSION (3 WIND TURBINES)

PERMITTED WIND FARM ABP REF 318816 SHOWN IN CYAN (8 WIND TURBINES)

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11

INTERNAL WIND FARM CABLE CONNECTING TO CONTROL ROOM PERMITTED AS PART OF ABP REF 318816 APPLICATION & PROPOSED POINT OF CONNECTION TO PROPOSED ELECTRICITY SUBSTATION

Legend:

- Development Boundary
- Electricity Cable Route
- Permitted Infrastructure
- Proposed Infrastructure
- Proposed Electricity Substation
- Proposed Alternative Cable Route

N

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Date:	Rev:	Description:	Drawn By:

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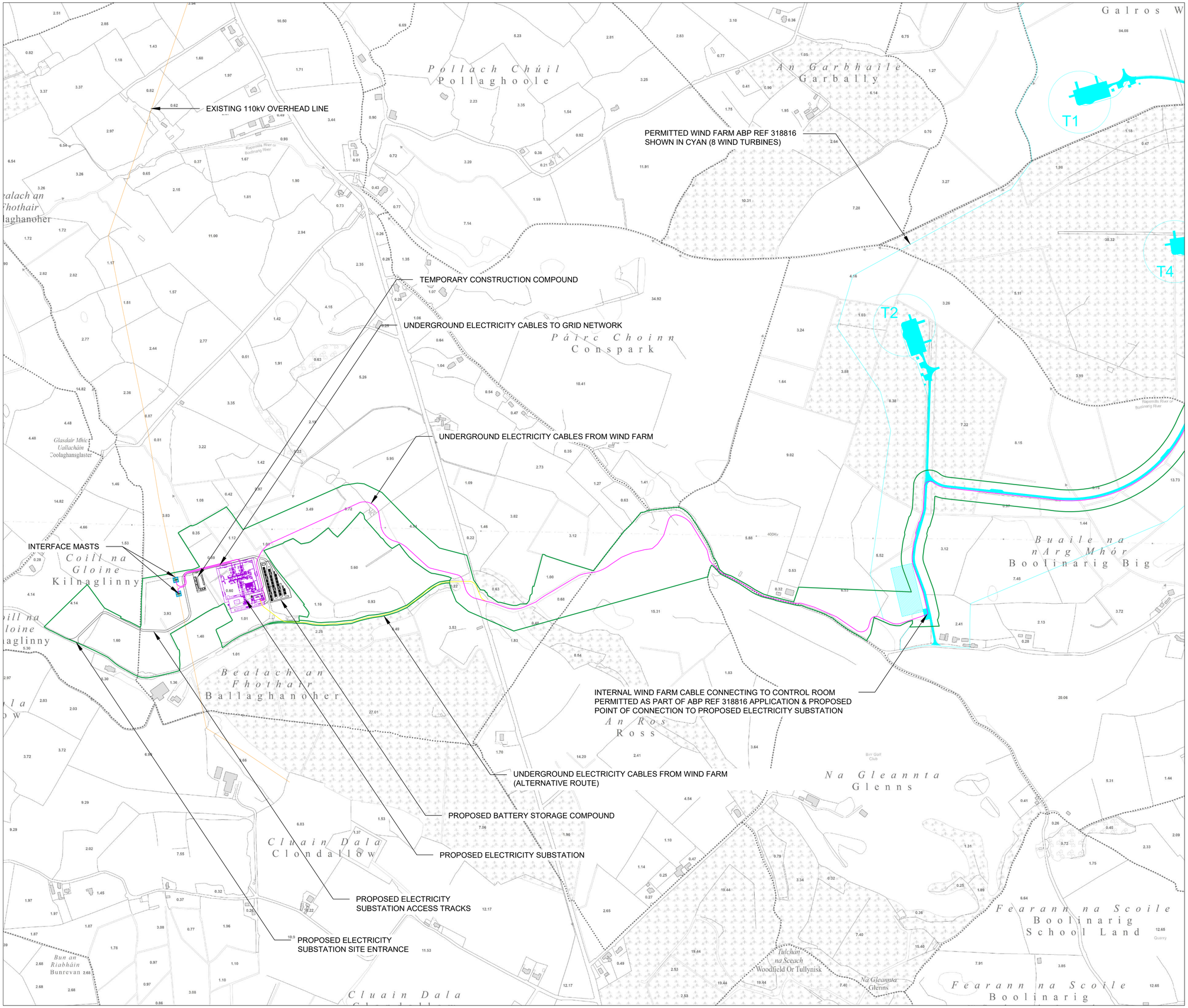
Job Title: CUSH WIND FARM EXTENSION

Drawing Title: OVERALL SITE LOCATION MAP 1 OF 2 (1:5,000)

Drawing No.:	Stage:	
CUSH001_SCOP_LOC-0.03	SCOPING	
Scale: (A1) 1:5,000	Date: 01/01/2026	Revision No.: REV 00
Drawn By: EF	Checked By: DO	Confirmed By: DO



Legend:

- Development Boundary
- Electricity Cable Route
- Permitted Infrastructure
- Proposed Infrastructure
- Proposed Electricity Substation
- Proposed Alternative Cable Route

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Date:	Rev:	Description:	Drawn By:

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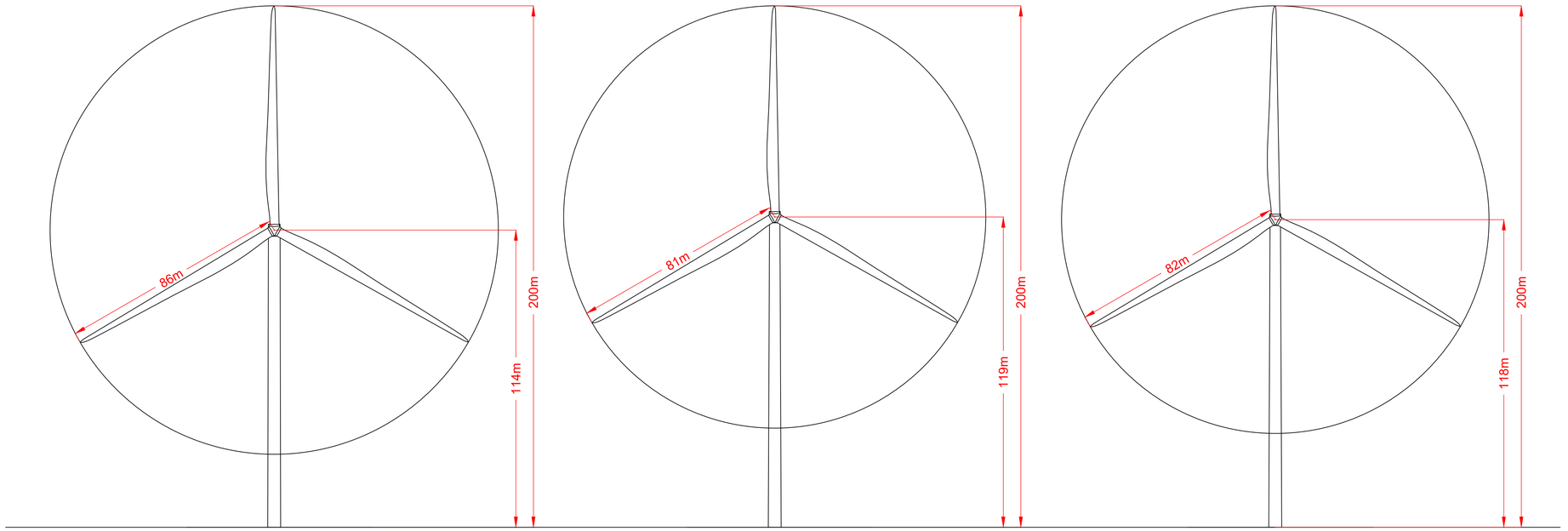
Client: CUSH WIND

Job Title: CUSH WIND FARM EXTENSION

Drawing Title: OVERALL SITE LOCATION MAP 2 OF 2 (1:5,000)

Drawing No.:	Stage:	
CUSH001_SCOP_LOC-0.03	SCOPING	
Scale: (A1) 1:5,000	Date: 01/01/2026	Revision No.: REV 00
Drawn By: EF	Checked By: DO	Confirmed By: DO

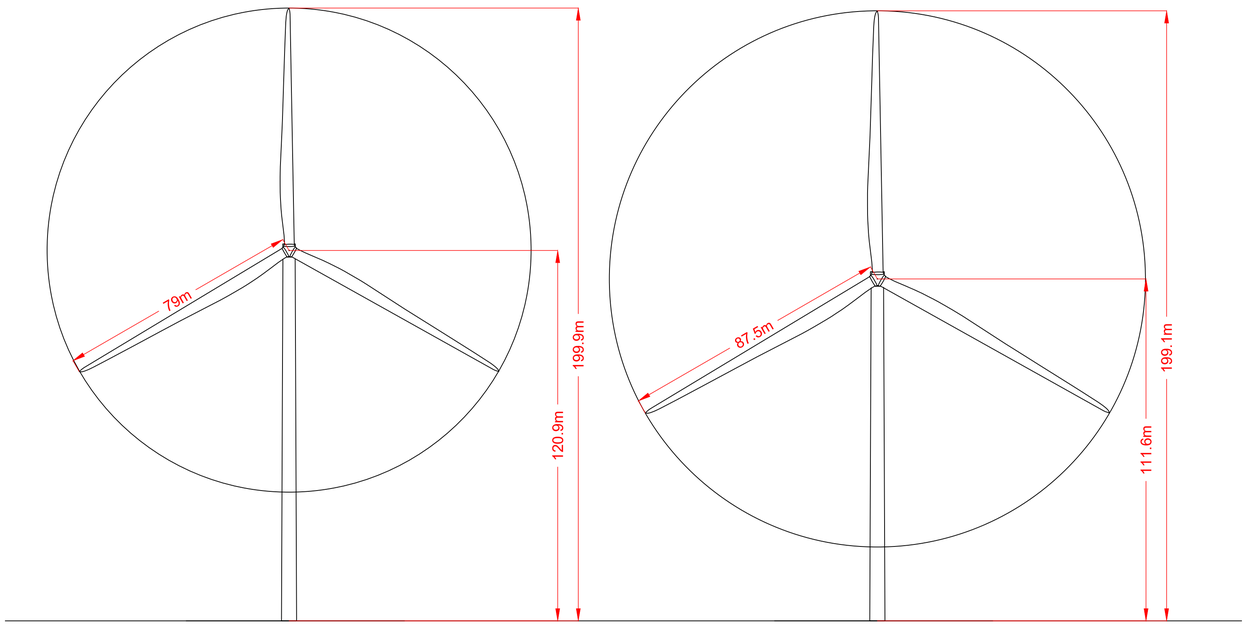
ANNEX 5 - TURBINE ELEVATION DRAWING



V172 (114HH / 86R / 200T)

V162 (119HH / 81R / 200T)

GE164 (118HH / 82R / 200T)



GE158 (120.9HH / 79R / 199.9T)

E175 (111.6HH / 87.5R / 199.1T)

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Job Title:
CUSH WIND FARM EXTENSION

Drawing Title:
TURBINE OPTIONS

Drawing No.	Stage.	
CNA001-DR-ELE-01	PLANNING	
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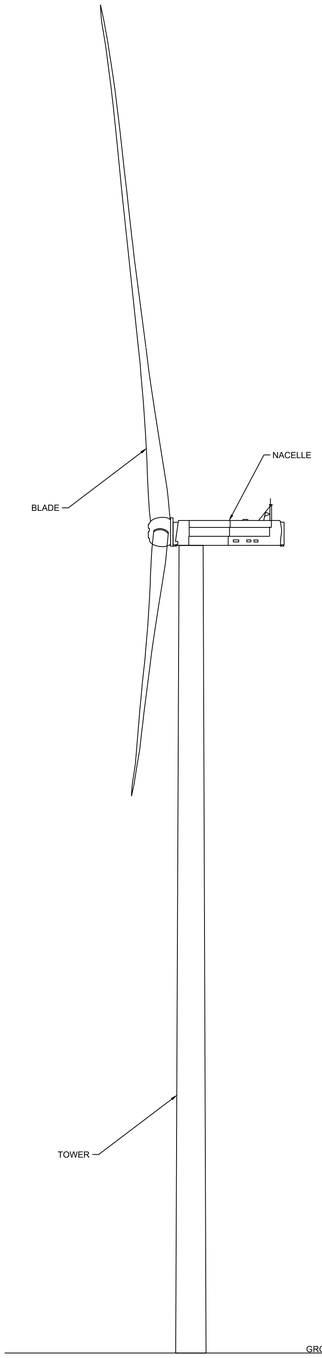
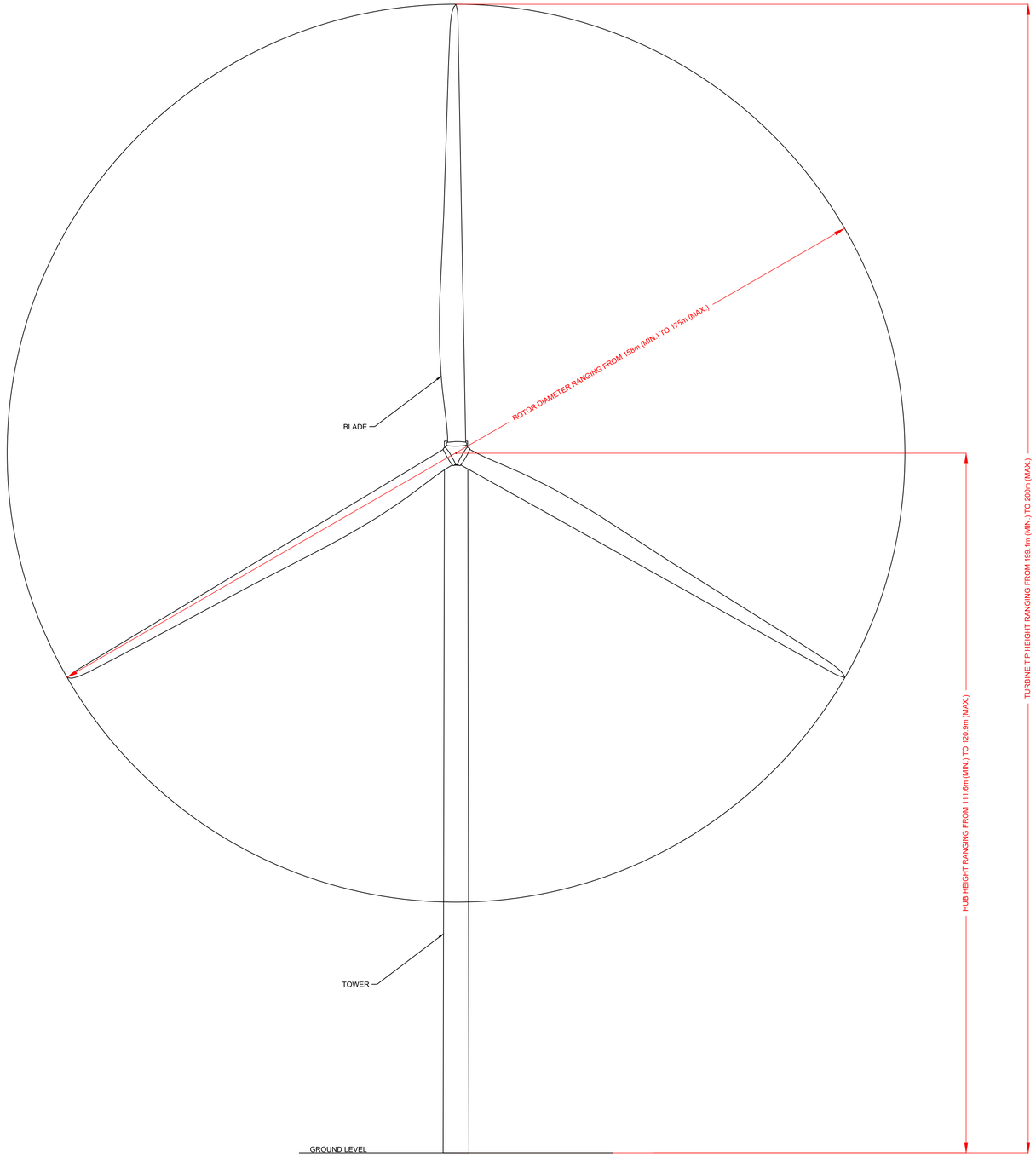
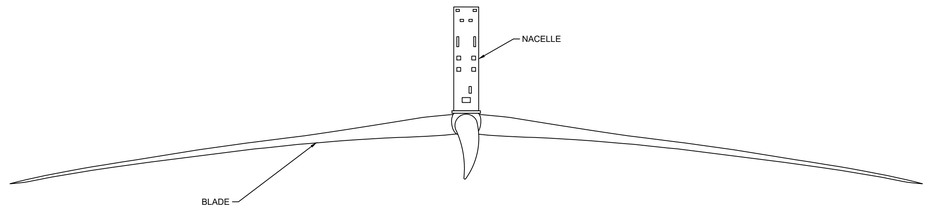
Drawn By: EF	Checked By: JB	Confirmed By: DO



SIDE ELEVATION



FRONT ELEVATION



PLAN VIEW

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Job Title: CUSH WIND FARM EXTENSION

Drawing Title: TURBINE ELEVATION DRAWING

Drawing No.	Stage.	
CNA001-DR-ELE-02	PLANNING	
Scale: (A1) 1:500	Date: 11/03/2026	Revision No.: REV 0
Drawn By: EF	Checked By: JB	Confirmed By: DO