

Proposed Annagh Wind Farm Project

4th Public Consultation Event
September 08th 2021

This Webinar will be made available on the dedicated Annagh Project website for those who are unable to attend this evening

We will begin momentarily,
just allowing people a few
extra minutes to dial in.....



Annagh Wind Farm Proposal

- Company Introductions
- Project Details
- Project Design
- Community Fund
- Question Time
- EIA Activities
- Question Time
- Conclusion



Company Introduction

100 Years

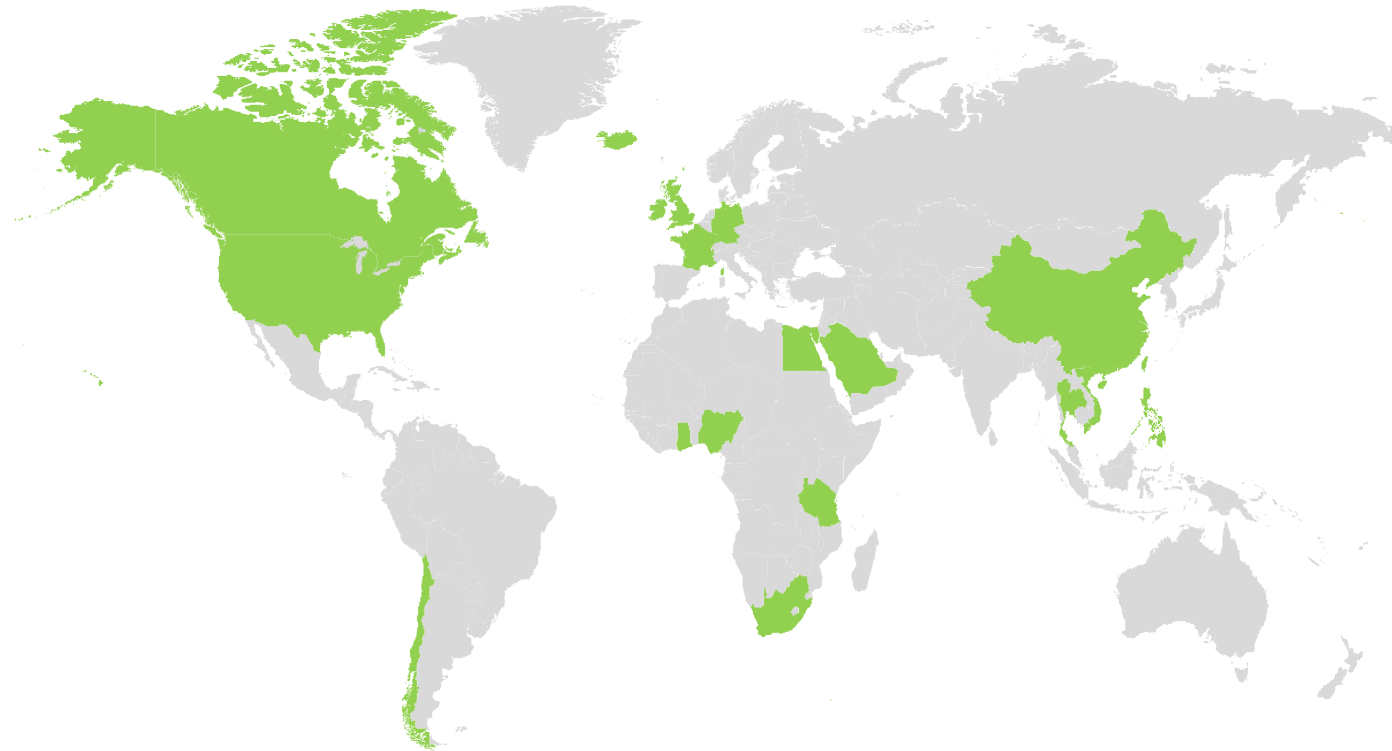
Combined Experience of
EMPower Management
Team in Renewable Energy

700 MW+

Wind Energy Capacity
Currently Under
Development By EMPower

5 Continents

Combined Geographical
Experience of EMPower
Team in Renewable Energy



- Fehilly Timoney & Company (FT) is an Irish civil and environmental engineering, scientific and planning consultancy based in Cork.
- FT has ca. 90 members of staff, including engineers, scientists, town planners, geotechnicians and technical support staff
- FT are a leading Irish consultancy in energy and renewables providing planning, design and environmental engineering on over 120 wind farm projects to date.
- FT is responsible for the environmental impact assessment of the proposed Annagh Wind Farm Project and the preparation of the planning application.



Energy Targets in Ireland

Table 7.5 Potential Metrics to Deliver Abatement in Electricity

Key Metrics	2017	2025 Based on MACC	2030 Based on MACC
Share of Renewable Electricity, %	~30% ²⁰	52%	70%
Onshore Wind Capacity, GW	~3.3	6.5	8.2
Offshore Wind Capacity, GW	NA	1.0	3.5
Solar PV Capacity, GW	NA	0.2	0.4
CCGT Capacity, GW	~3.6	5.1	4.7

70%

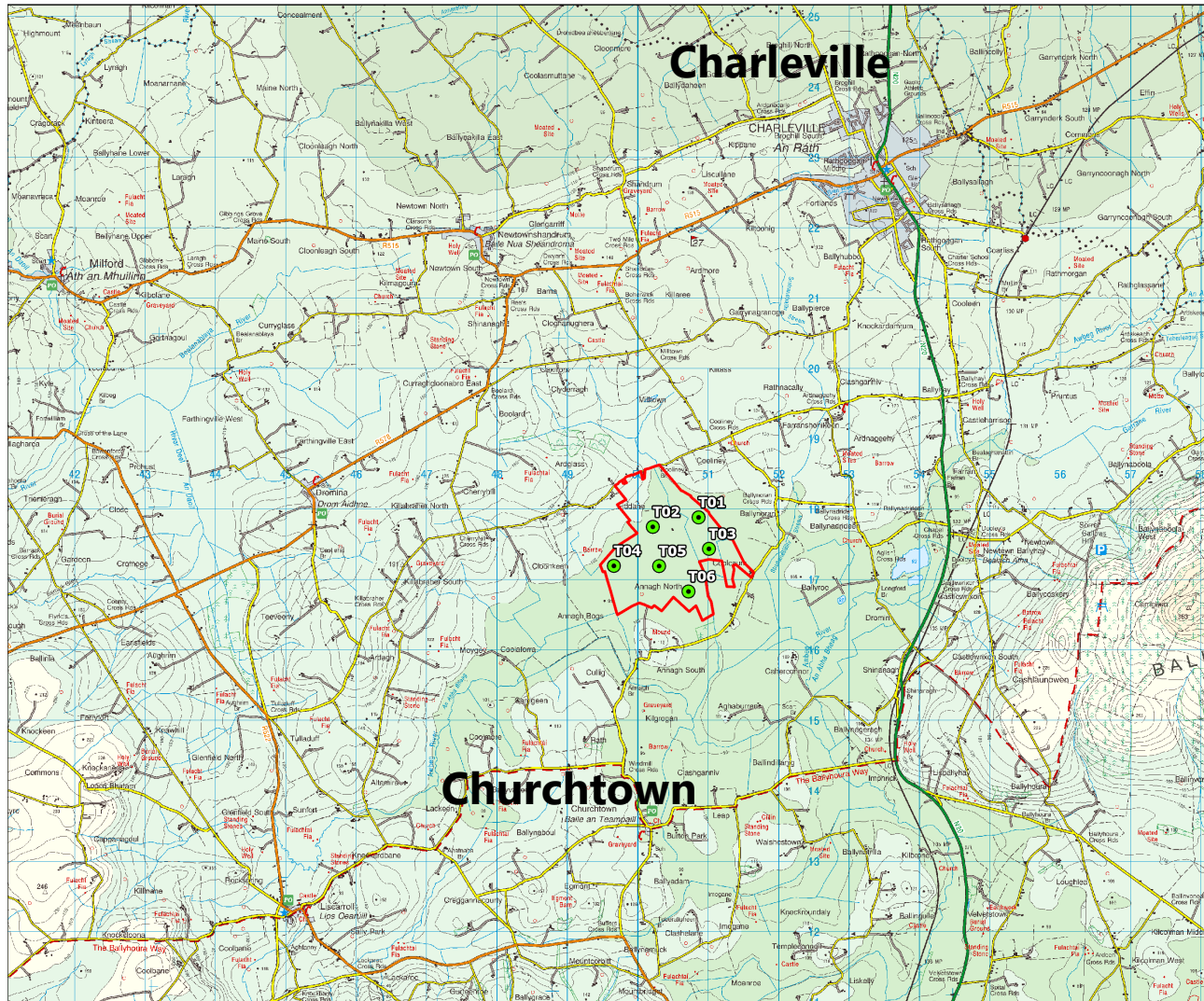
Renewables
by 2030

8.2 GW

Onshore wind
by 2030

Source – Department of Communications, Climate Action and Environment
Climate Action Plan 2019
Marginal Abatement Cost Curve (MACC) Analysis

Project Introduction



- Annagh Wind Farm**
-
- Annagh, Annagh North, Coolcaum and Fidane in Co. Cork**
-
- 6 Turbines**
-
- 36 MW**
-
- Tip height of 175m**
-
- Enough clean electricity to power over 21,249 Irish homes**
-
- Estimated community benefit fund of €178,494 per annum**

Annagh WF - Proposed Site Location



Project Scope



6 x 6MW wind turbines

-

On Site 38Kv Substation

-

Upgrading of existing and construction of new site access track

-

1 onsite 100m met mast height of

-

Temporary construction compound

-

c.5.9km Grid connection route to Charleville Substation

-

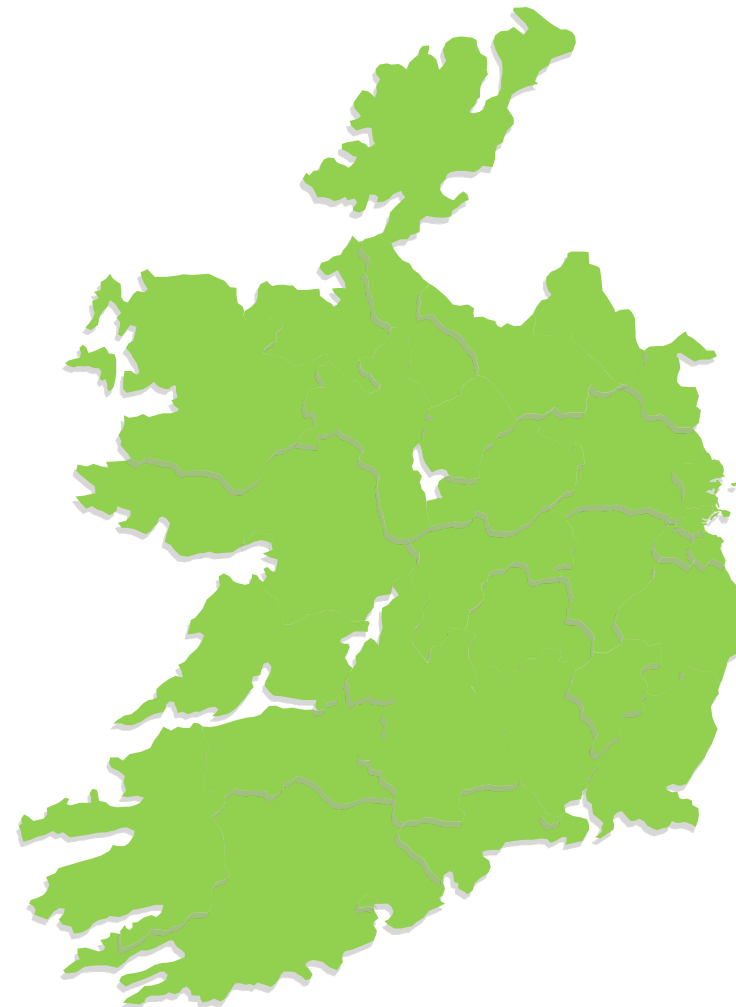
Turbine Delivery Route from Foynes to the project site

Project Screening

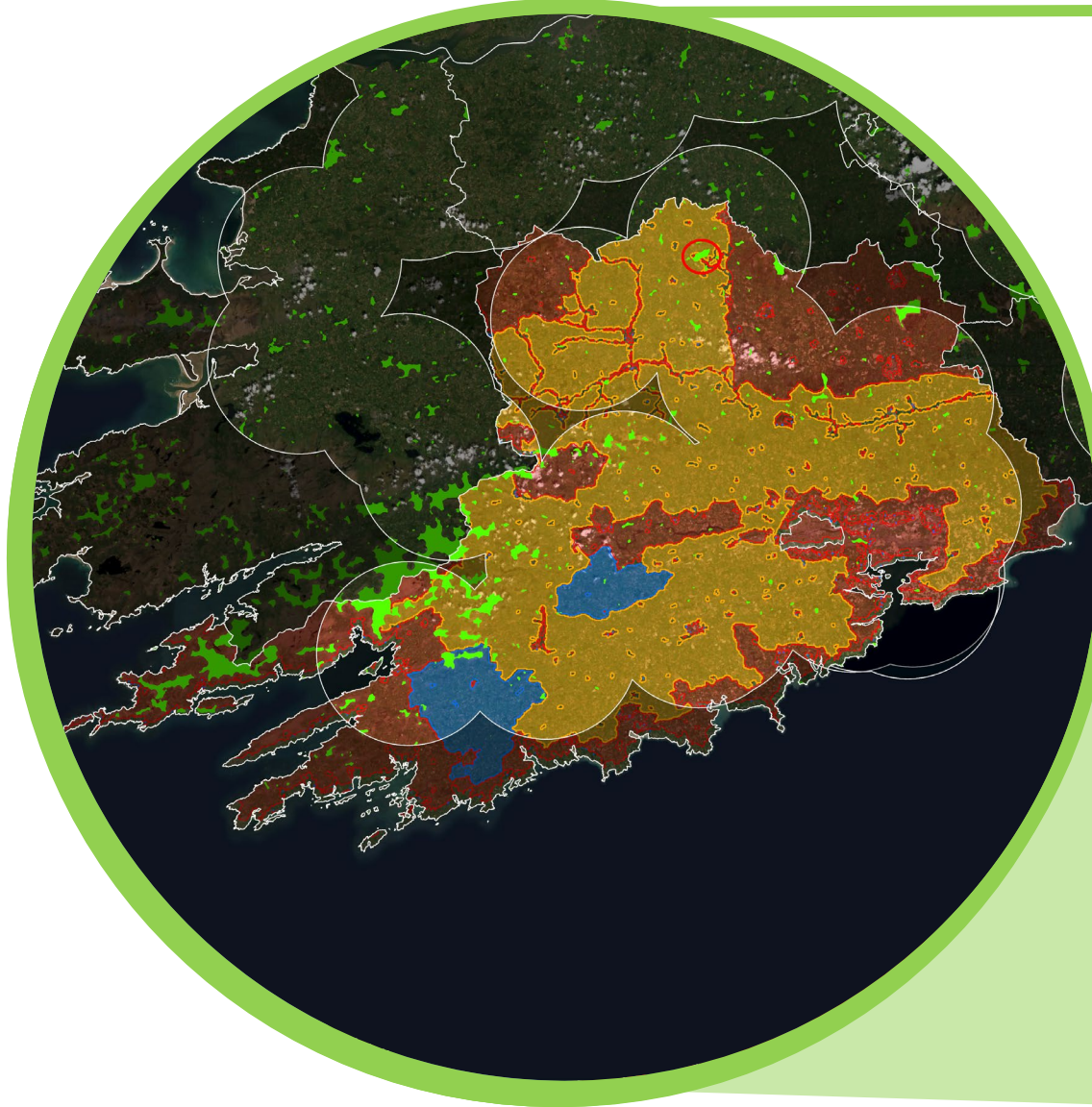


Screening analysis performed on the entire Republic of Ireland incorporating constraints such as:





- Wind speed
- Grid connection
- Environmental Designations
- Culture and heritage
- Tourism
- County Development Plans
- Existing, planned and permitted projects
- Housing



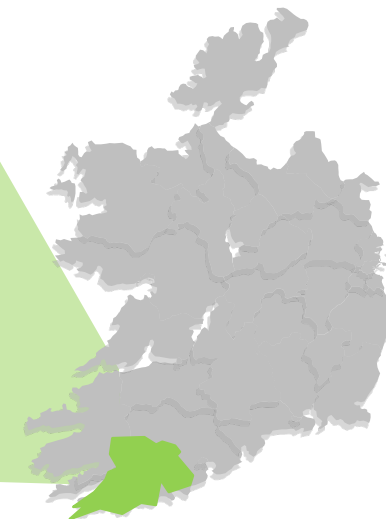
Site Screening



Legend

-  Cork Strategic
-  Cork OTC
-  Cork Unsuitable
-  Annagh Buildable Area


Screening analysis performed on the entire Republic of Ireland. Example of County Cork shown.



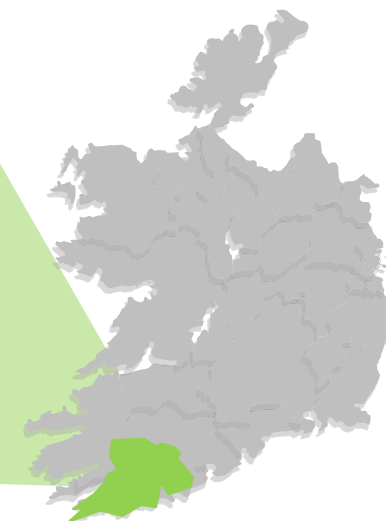
Site Screening



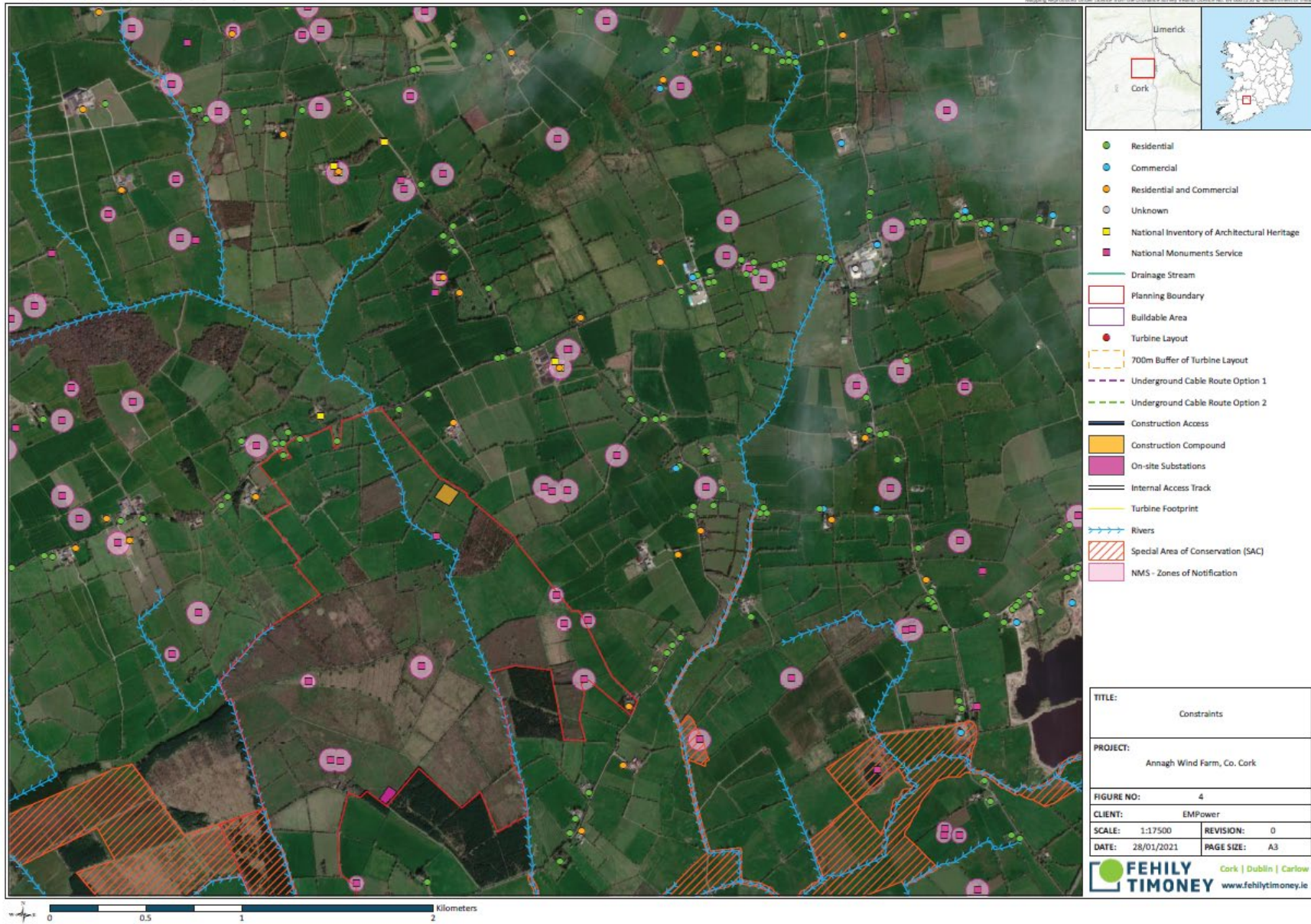
Legend

 Annagh Buildable Area

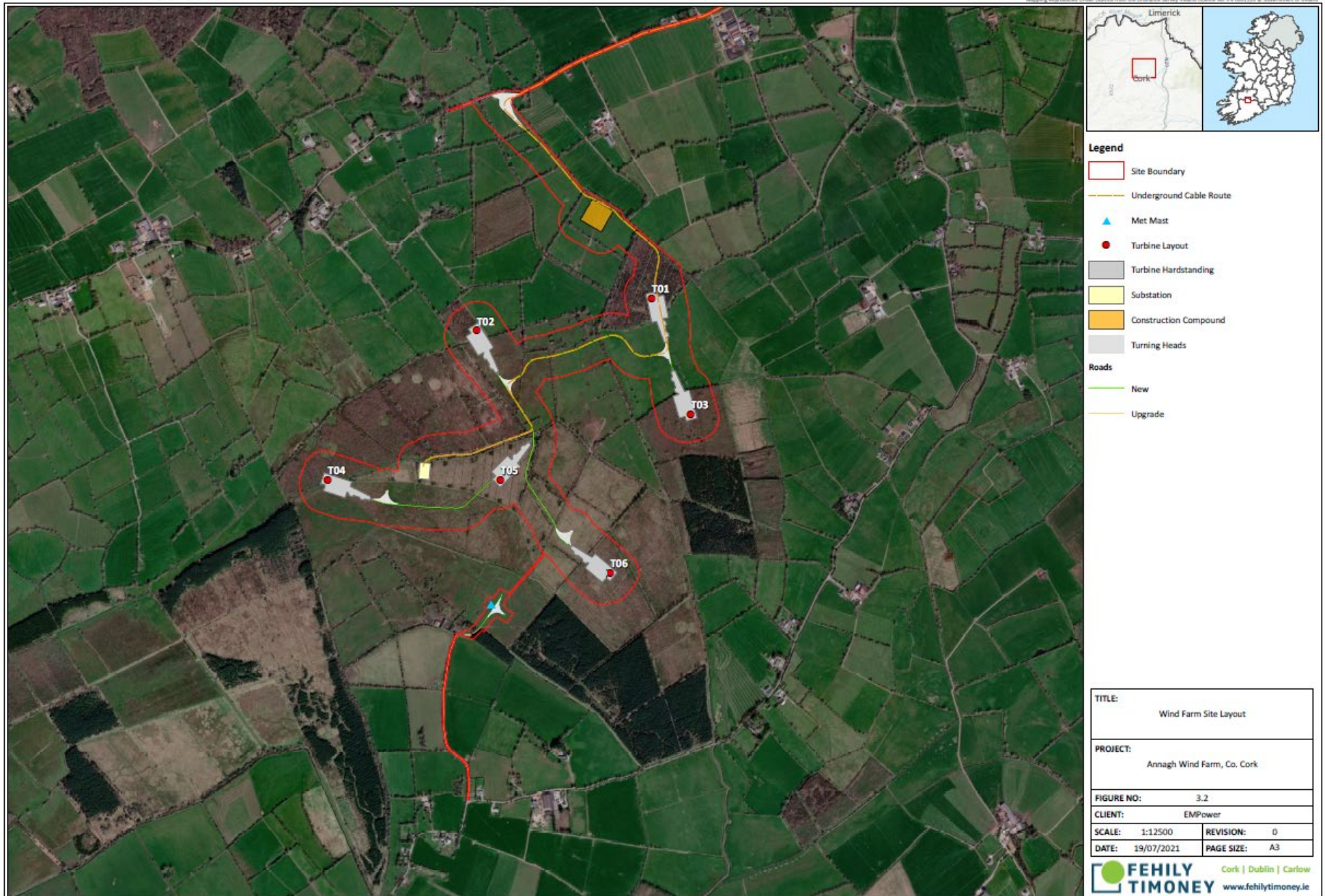
Screening analysis performed on the entire Republic of Ireland. Example of County Cork shown.



Site Screening



Wind Farm Project Design



Grid Map

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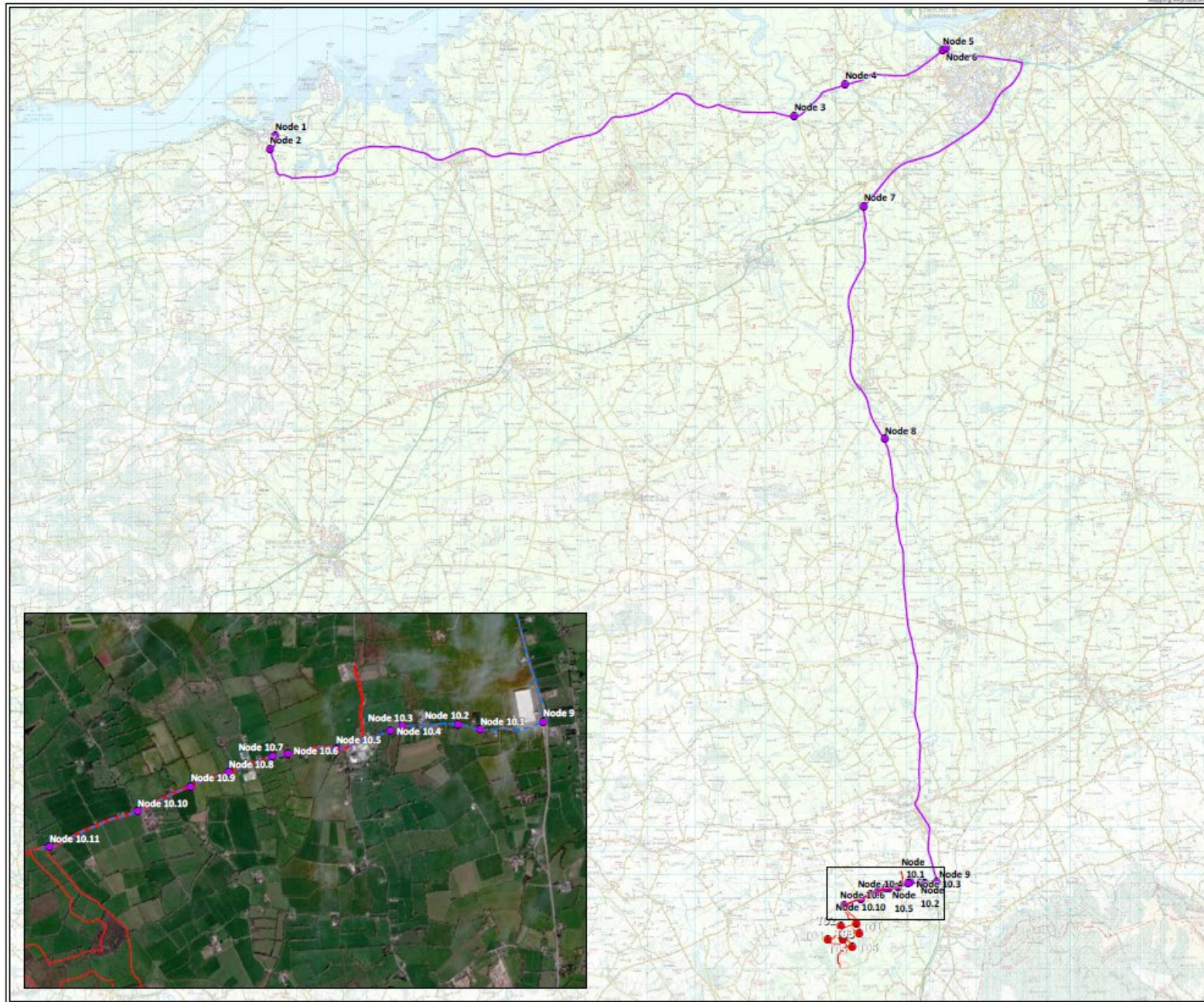


- Legend**
- Site Boundary
 - Turbine Layout
 - Underground Cable Route
 - Construction Compound
 - Substation
 - Special Area of Conservation (SAC)

TITLE:	
Grid Connection	
PROJECT:	
Annagh Wind Farm, Co. Cork	
FIGURE NO:	3.4
CLIENT:	EMPower
SCALE: 1:18000	REVISION: 0
DATE: 14/07/2021	PAGE SIZE: A3

Transport Map

Mapdata transformed under license from the Ordnance Survey Ireland License No. 174 0001200 © Government of Ireland



- Legend**
- Site Boundary
 - TDR Nodes
 - Turbine Delivery Route
 - Turbine Layout

TITLE:	Turbine Delivery Route
PROJECT:	Annagh Wind Farm, Co. Cork
FIGURE NO:	3.5
CLIENT:	EMPower
SCALE:	1:160000
REVISION:	0
DATE:	19/07/2021
PAGE SIZE:	A3



Annagh Community Benefits

Total Annual Fund of €178,494

Renewable Electricity Support Scheme (RESS)
High Level Design

Annagh Indicative Community Fund Allocation

THE PROJECT



€2.5 million
Community Fund



Enough Clean Power
for 20,000 Irish
Homes



€36.6 million
Investment in Irish
Renewable Energy



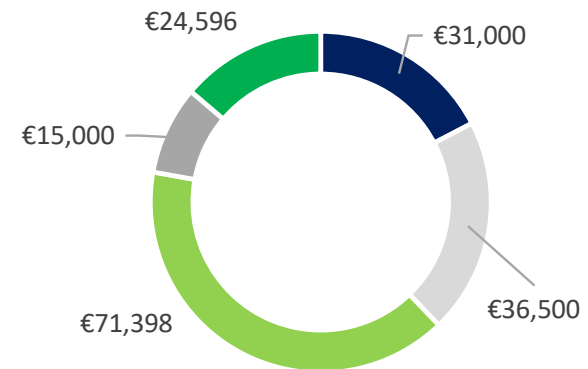
€28.3 million in
Corporate Tax



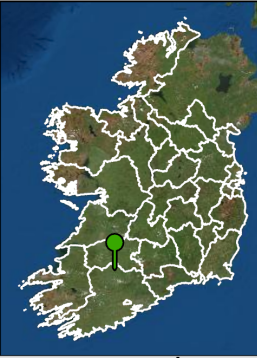
€6 Million in
County Council Rates



57 Direct
Jobs Created

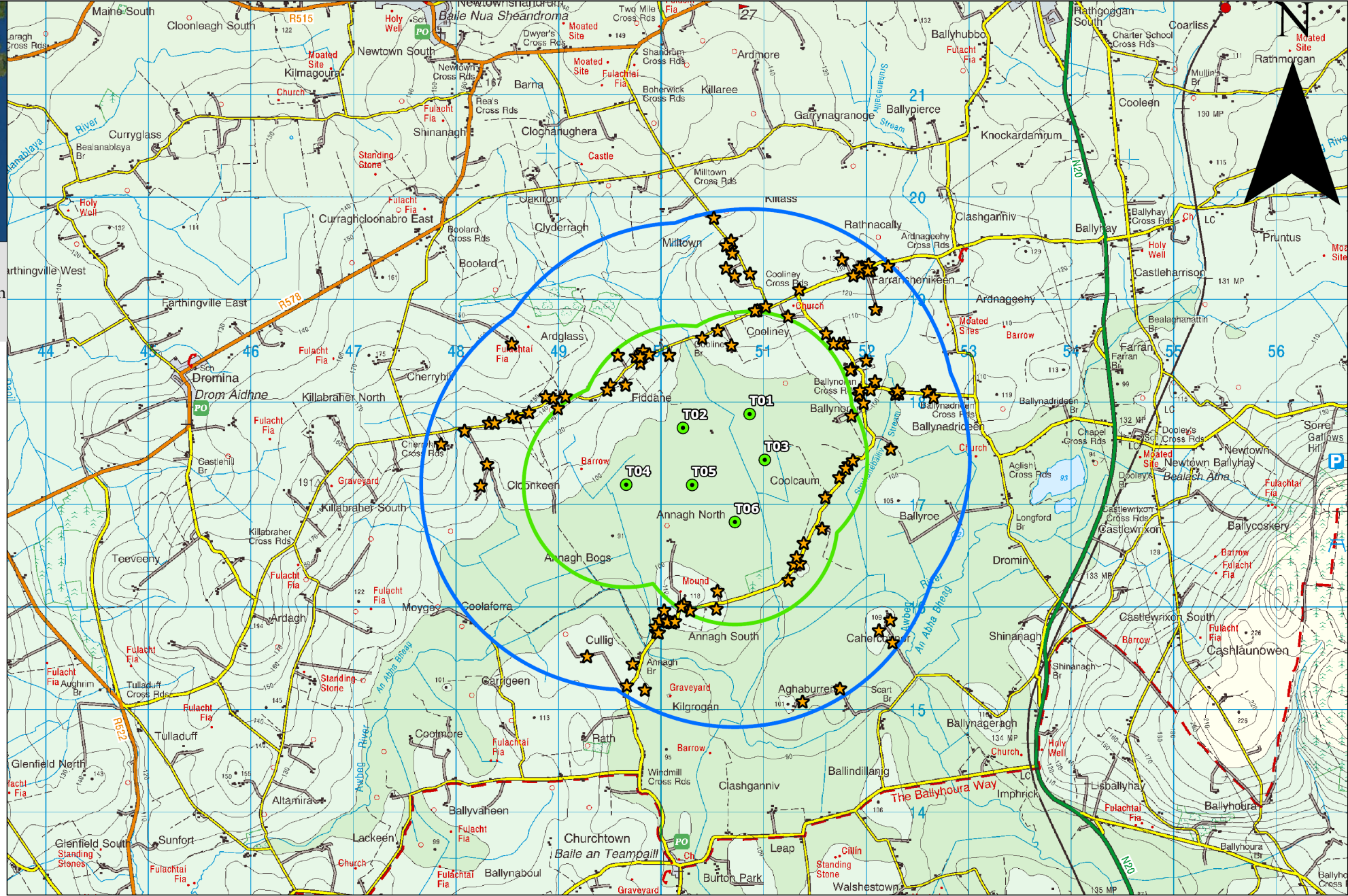


- Households <1km distance
- Households >1km, <2km distance
- Not-for-profit community enterprises
- Fund administration
- Local initiatives, clubs and societies

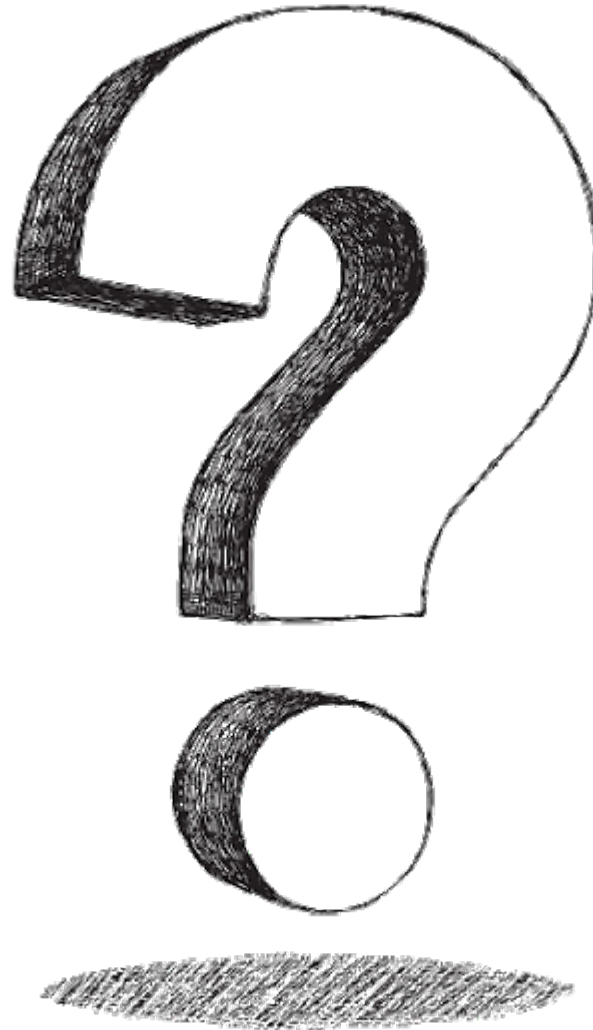


Legend

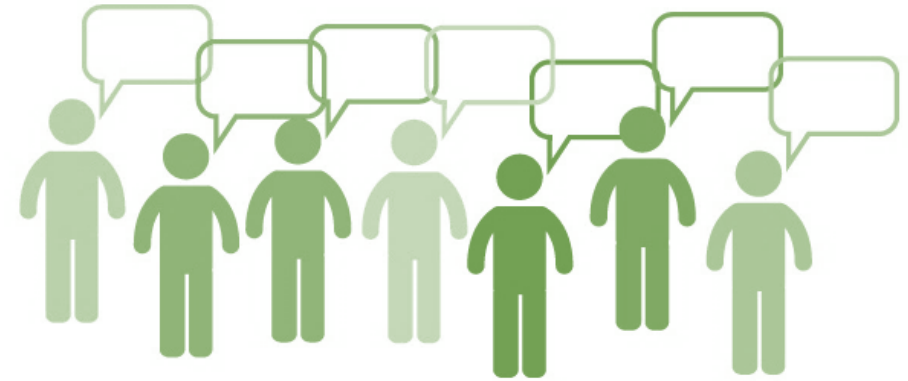
- V150 Positions
- ★ Residents Within 2km
- Annagh 1km Buffer
- Annagh 2km Buffer



Annagh WF - Near Neighbour



Social Impact



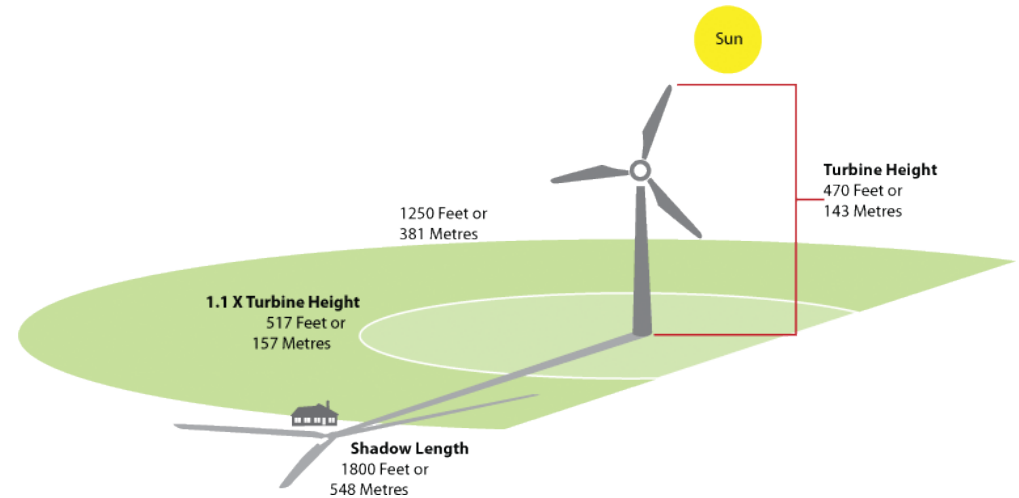
Flora & Fauna

Hydrology



Ornithology

Shadow Flicker



Sound

Construction and Civil Engineering

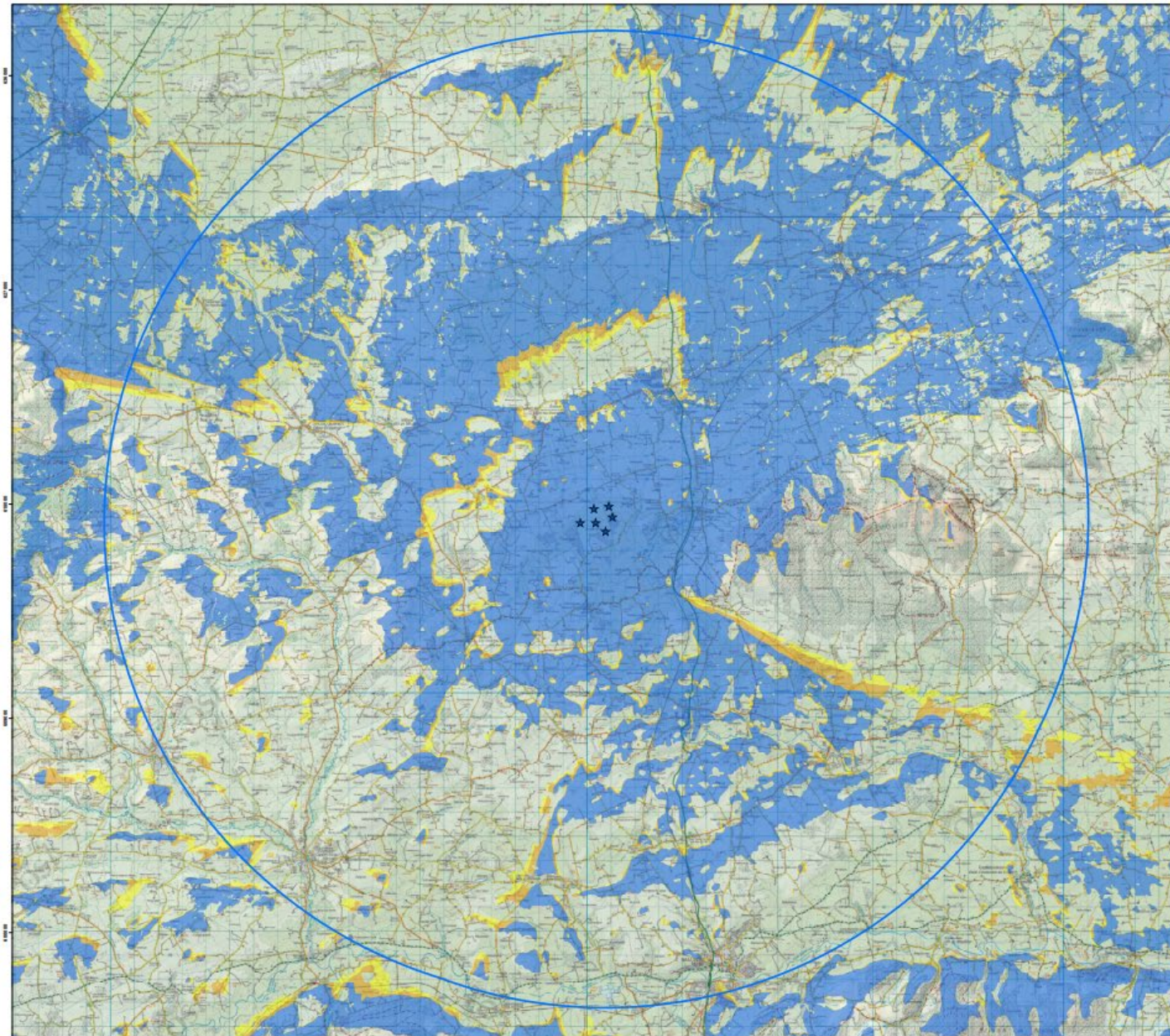


Archaeology

Environmental Impact Assessment

Landscape and Visuals

ZTV (Zone of Theoretical Visibility) indicating the areas that have a potential view of the proposed turbines at Annagh Wind Farm (Tip Height 175m)



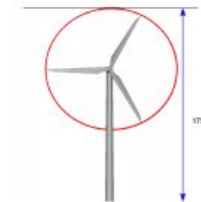
Proposed Turbines



No. Turbines Visible

- 1 - 2 (Yellow)
- 3 - 4 (Orange)
- 5 - 6 (Blue)

20km Extent



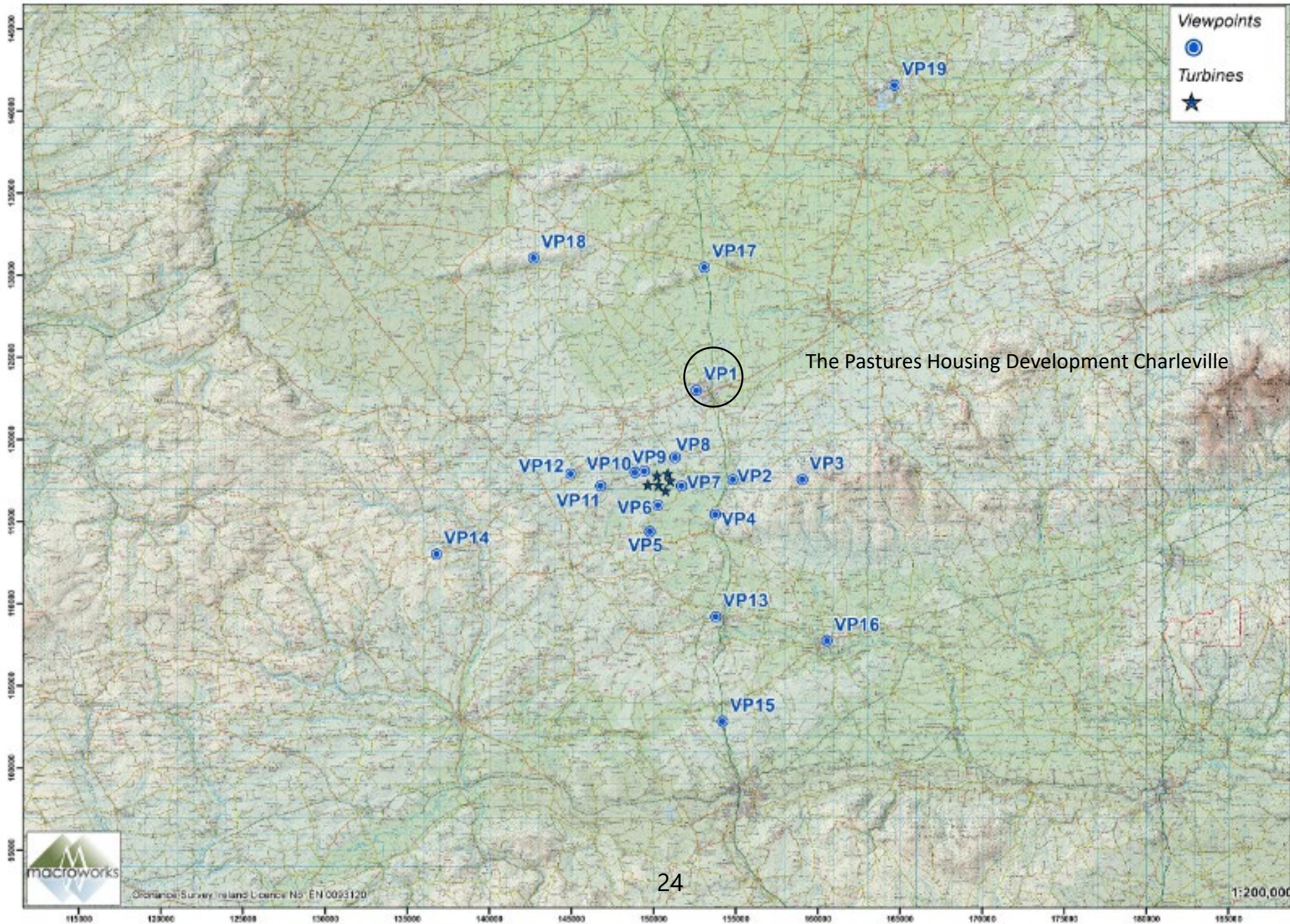
This ZTV map has been calculated such that a turbine registers as been theoretically visible to observers in the surrounding landscape once there is an unobstructed line of sight to its blade tip.

Observer Height assumed: 2m to eye-level height
Blade Tip Heights: 175m

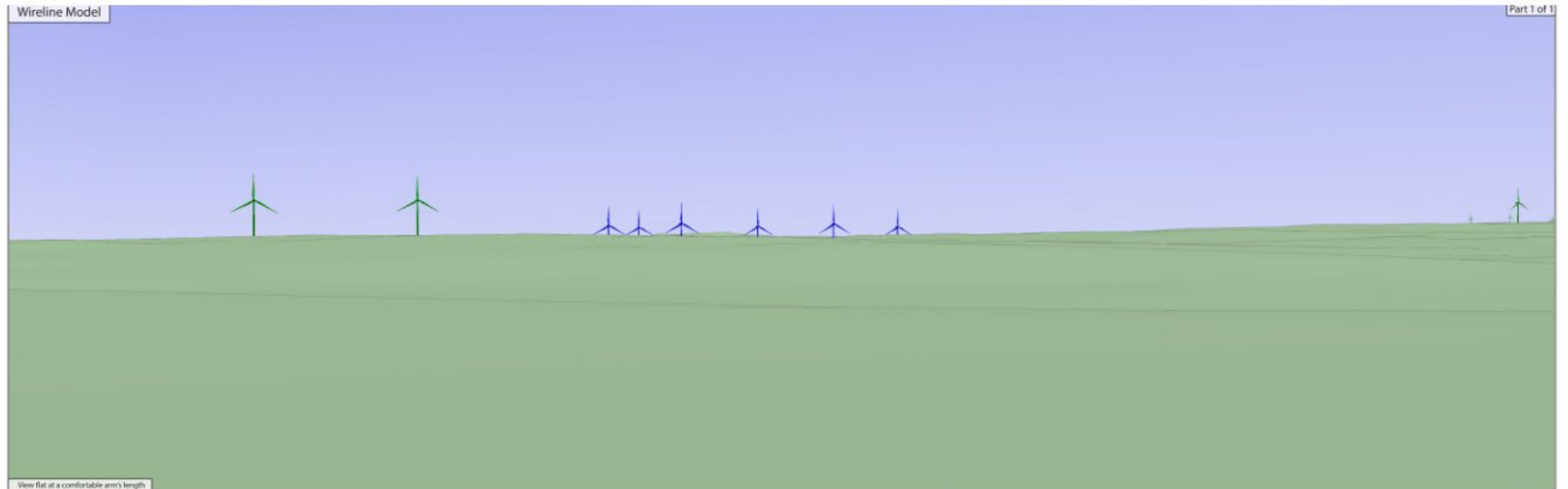
Note: This ZTV map is calculated for landform screening only and does not take account of the significant screening effects of vegetation (hedgerows, trees) and buildings inherent across the study area.

Environmental Impact Assessment – VP1

LVIA viewpoint locations selected for the Annagh Wind Farm project



Environmental Impact Assessment – VP1



View flat at a comfortable arm's length

This planar projection panoramic model has been prepared and presented in accordance with the guidance set out in the Scottish Natural Heritage 2017 guidance 'Visual Representation of Wind Farms'

- Proposed Turbines
- Existing Turbines
- Permitted Turbines
- Permitted Solar Farms



National Grid Coordinate (UTM)	Horizontal Field of View	33.3° (glance perspective)	Date and Time	06/11/2020	13:00	Direction in clockwise from Grid N:	302°
Easting	Principal Distance	812.0 m	Camera	Canon S1000	Canon S1000	Distance to Nearest Visible Turbine:	2.4 km
Northing	Paper size	A4 (210 x 297 mm)	Lens	18mm	1.7x (35mm)	Nearest Turbine	TO1
Elevation	Correct printed image size	900 x 300 mm	Camera Height				



Annagh Wind Farm - Landscape and Visual Impact Assessment

The Pastures housing development, Charleville

VP1

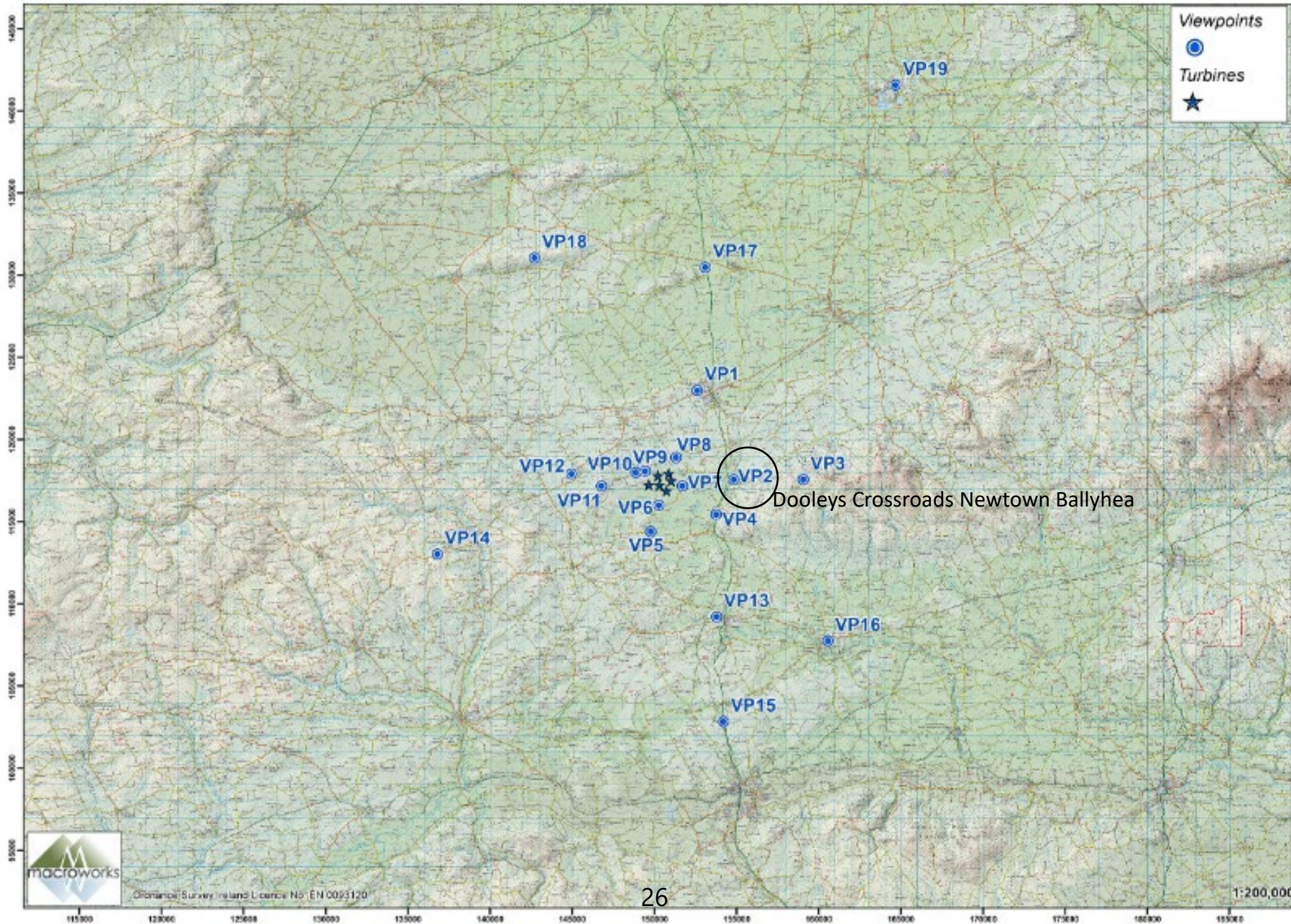
Photomontage

Part 1 of 1



Environmental Impact Assessment – VP2

LVIA viewpoint locations selected for the Annagh Wind Farm project



Environmental Impact Assessment – VP2

Annagh Wind Farm - Landscape and Visual Impact Assessment

Dooley's Crossroads, Newtown Ballyhay

VP2

Wireline Model

Part 1 of 1



View flat at a comfortable arm's length.

The above projection parameter model has been prepared and presented in accordance with the guidance set out in the Scottish Natural Heritage 2017 guidance 'Visual Representation of Wind Farms'.

- Proposed Turbines
- Existing Turbines
- Permitted Turbines
- Permitted Solar Farms



National Grid Coordinate (TM6)
Easting: 554763
Northing: 617628
Elevation: 100.7 m

Horizontal Field of View:
Principal Distance: 913.3 m
Paper Size: A3
Correct printed image size: 429 x 268 mm

Camera:
Lens: Canon
Camera Height:

Date and Time: 22/06/2021 08:12
Camera ID/Block #: Road 00000
Road Width: 1.7m (AGL)

Direction to Nearest Power Grid NE
Distance to Nearest Public Turbine:
Nearest Turbine:

367 m
200 m
303 m



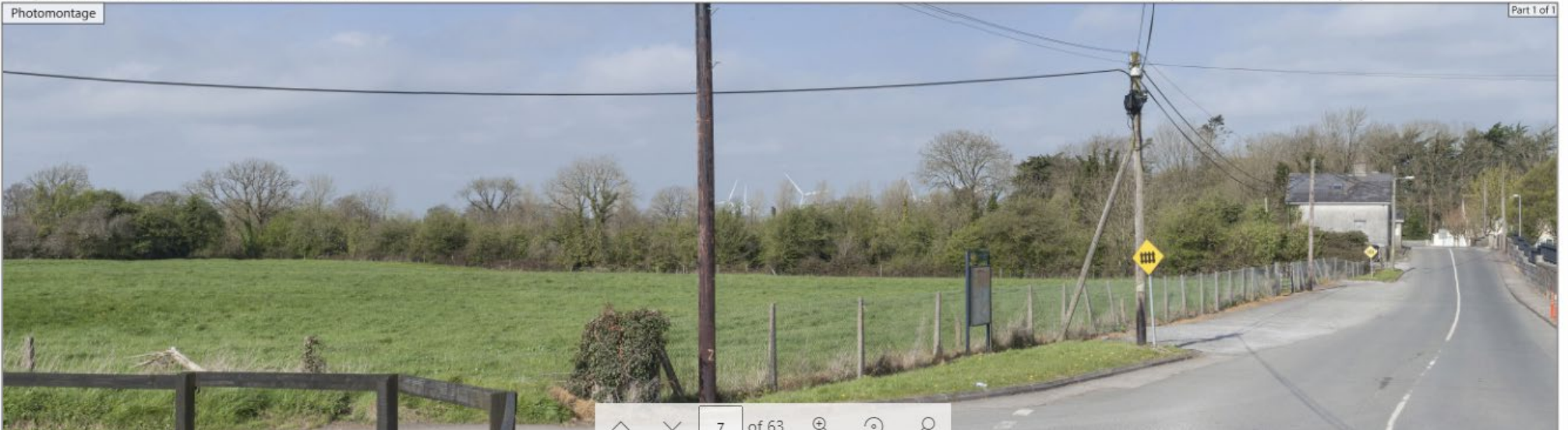
Annagh Wind Farm - Landscape and Visual Impact Assessment

Dooley's Crossroads, Newtown Ballyhay

VP2

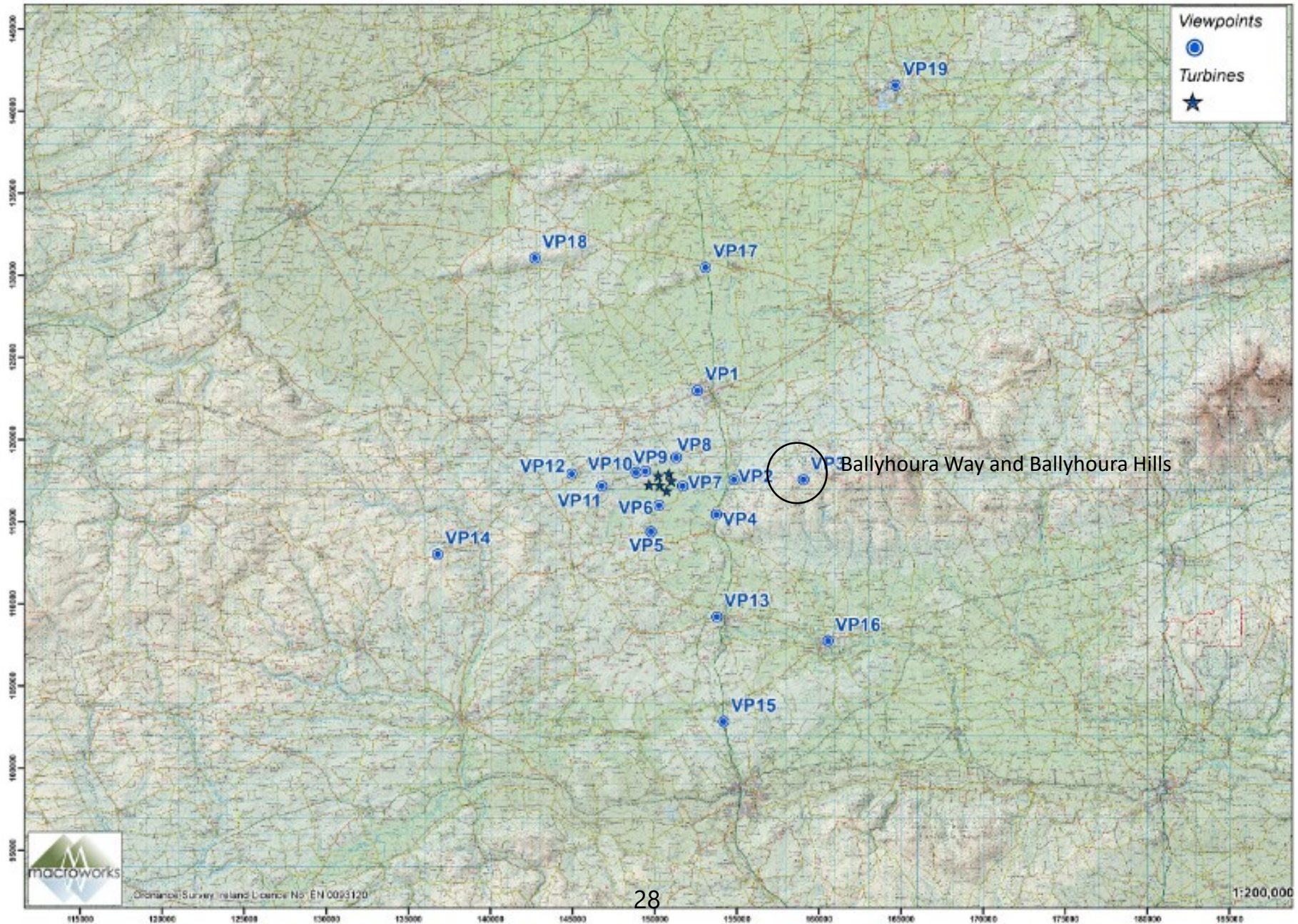
Photomontage

Part 1 of 1



Environmental Impact Assessment – VP3

LVIA viewpoint locations selected for the Annagh Wind Farm project



Virtual Consultation Room – VP3



The above projection perspective model has been prepared and presented in accordance with the guidance set out in the Scottish Natural Heritage 2017 guidance 'Visual Representation of Wind Farms'.

- Proposed Turbines
- Existing Turbines
- Permitted Turbines
- Permitted Solar Farms



National Grid Coordinate (TM6)	Horizontal Field of View	Date and Time	Direction is Azimuth from Grid N6	289°
Easting: 649021	Vertical Distance: 912.0 mms	Camera: Canon SD Mark II	Distance to Nearest Visible Turbine:	8.1 km
Northing: 617004	Paper Size: 2483x1841 x 250 mms	Lens: Canon	Nearest Turbine:	703
Elevation: 381.2 m	Correct printed image size: 800 x 280 mms	Camera Height: 1.7m (AGL)		



Annagh Wind Farm - Landscape and Visual Impact Assessment

Ballyhoura Way at Ballyhoura Hills

VP3

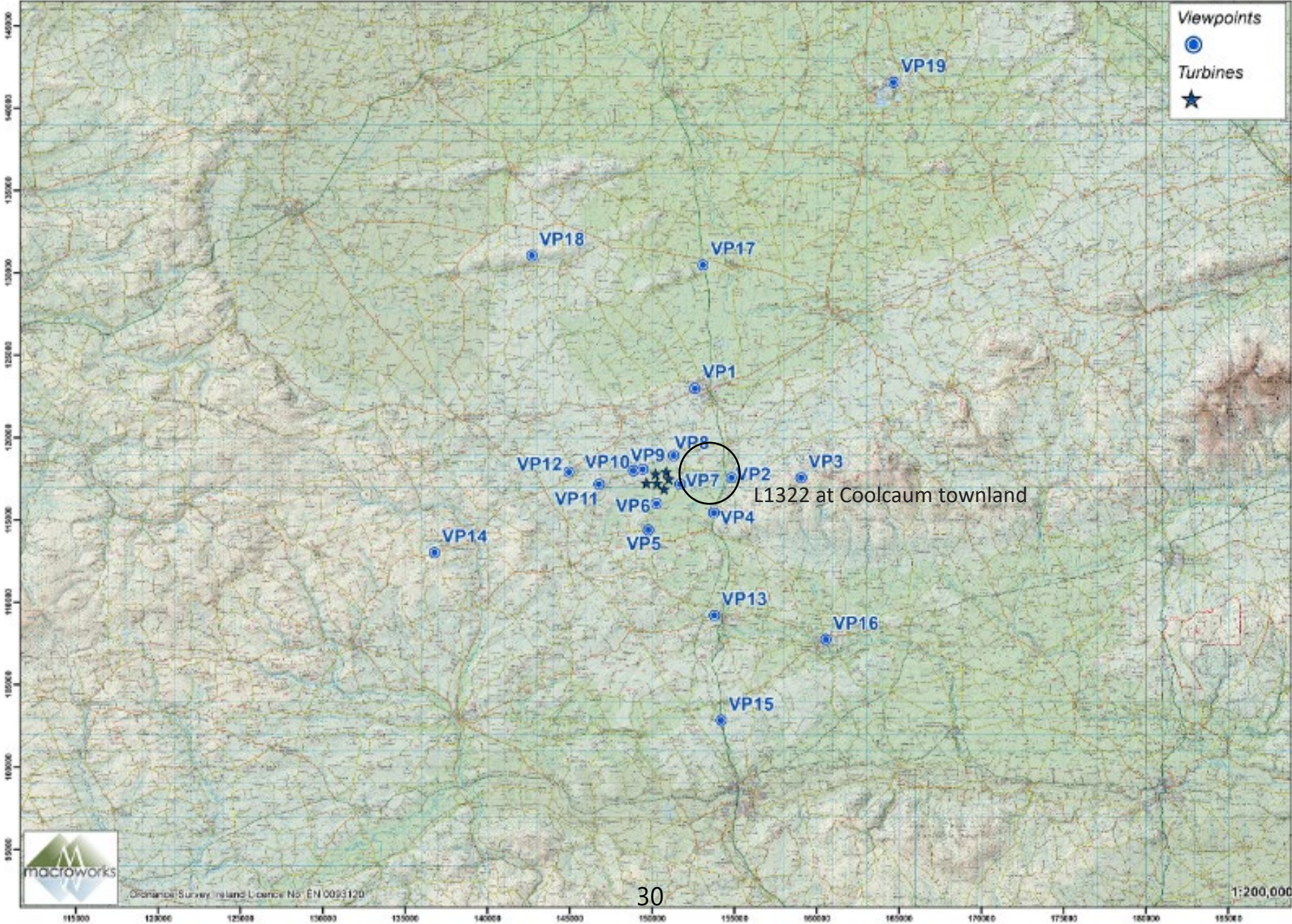
Photomontage

Part 1 of 1

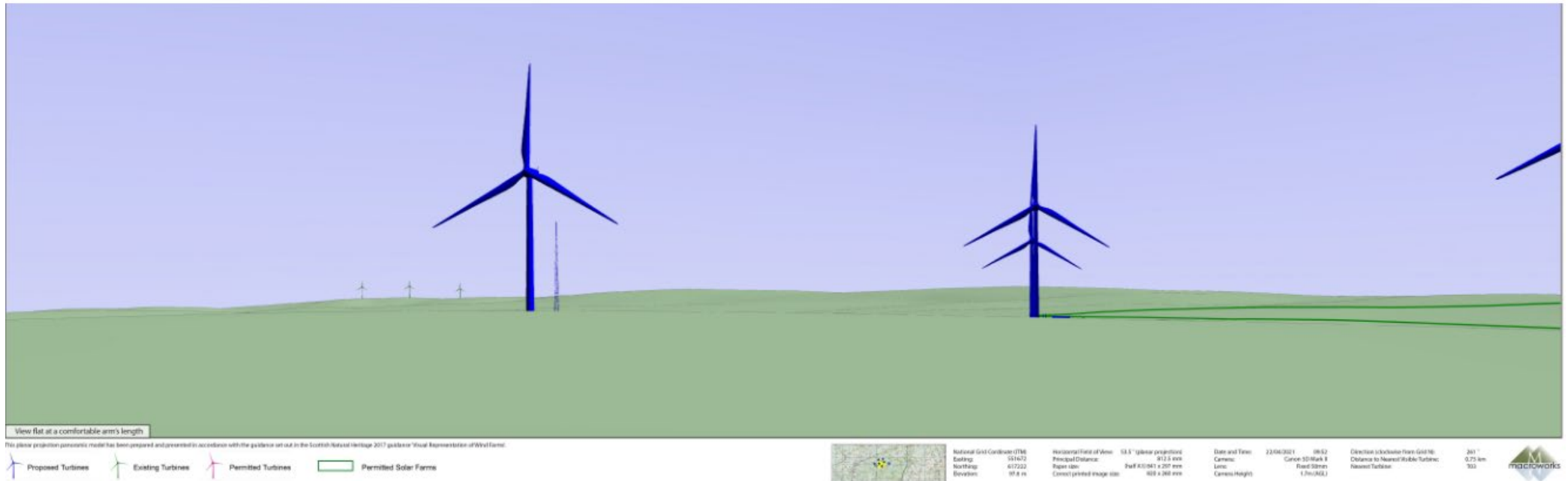


Environmental Impact Assessment– VP7

LVIA viewpoint locations selected for the Annagh Wind Farm project



Environmental Impact Assessment– VP7



Annagh Wind Farm - Landscape and Visual Impact Assessment

L1322 at Coolcaum townland

VP7a

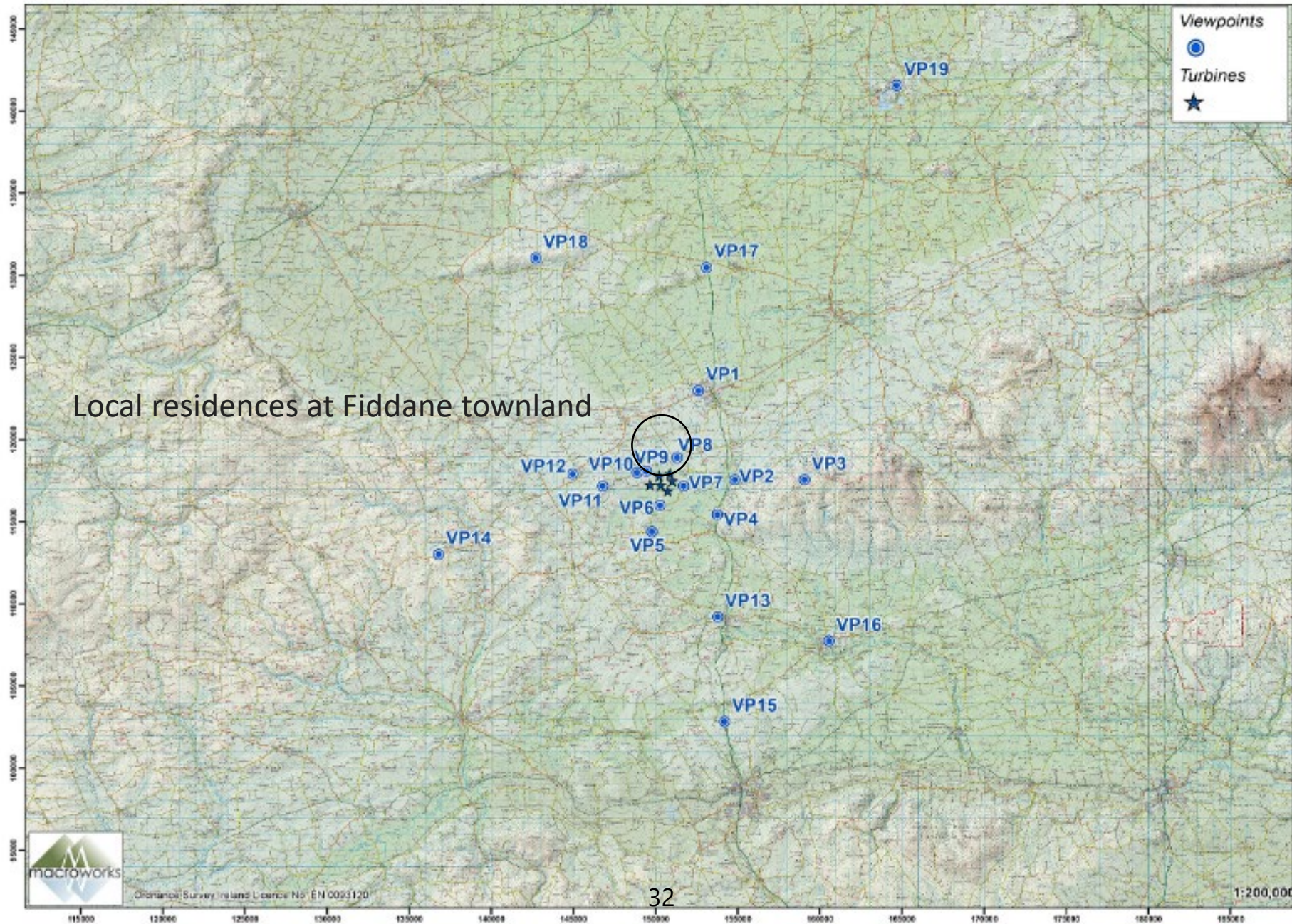
Photomontage

Part 1 of 2

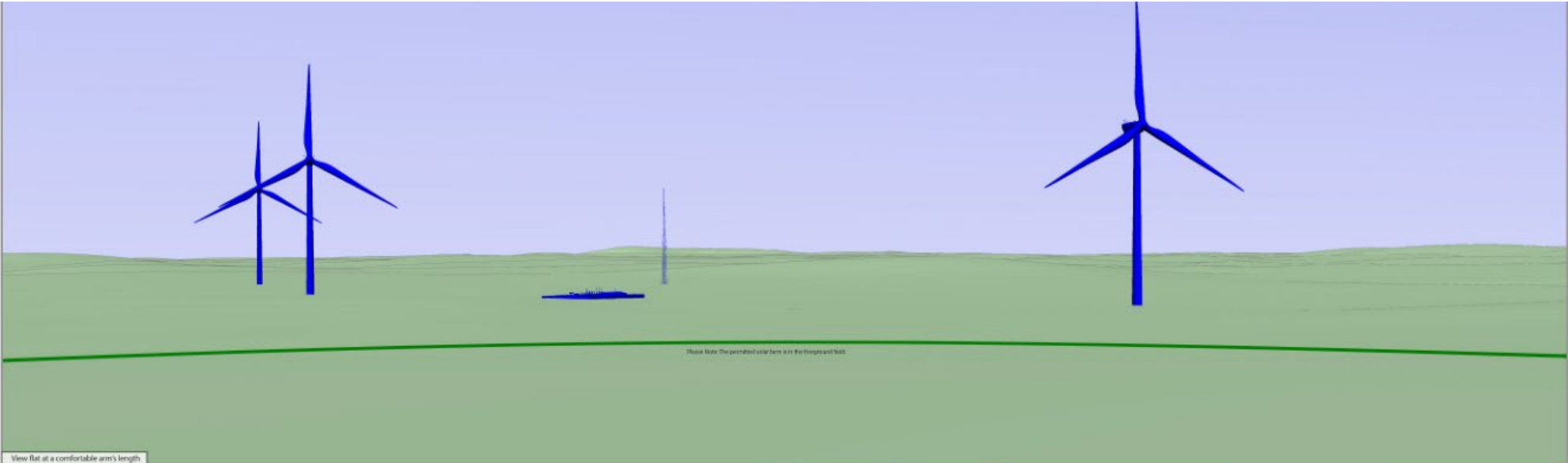


Environmental Impact Assessment – VP9

LVIA viewpoint locations selected for the Annagh Wind Farm project



Environmental Impact Assessment– VP9



View flat at a comfortable arm's length

This perspective panoramic model has been prepared and presented in accordance with the guidance set out in the Scottish Natural Heritage 2017 guidance 'Visual Representation of Wind Farms'.

- Proposed Turbines
- Existing Turbines
- Permitted Turbines
- Permitted Solar Farms



National Grid Coordinate (TM6)	Horizontal Field of View:	Date and Time:	22/06/2021	10:32	Direction (to nearest North Grid 10)	153°
Building:	Principal Distance:	Camera:	Canon 3D Mark II		Distance to Nearest Visible Turbine:	0.85 km
Northings:	Range (m):	Lens:	Fixed (35mm)		Nearest Turbine:	302
Elevations:	Corrected image size:	Camera Height:	1.76m (AGL)			



Annagh Wind Farm - Landscape and Visual Impact Assessment

Local residences at Fiddane townland

VP9b

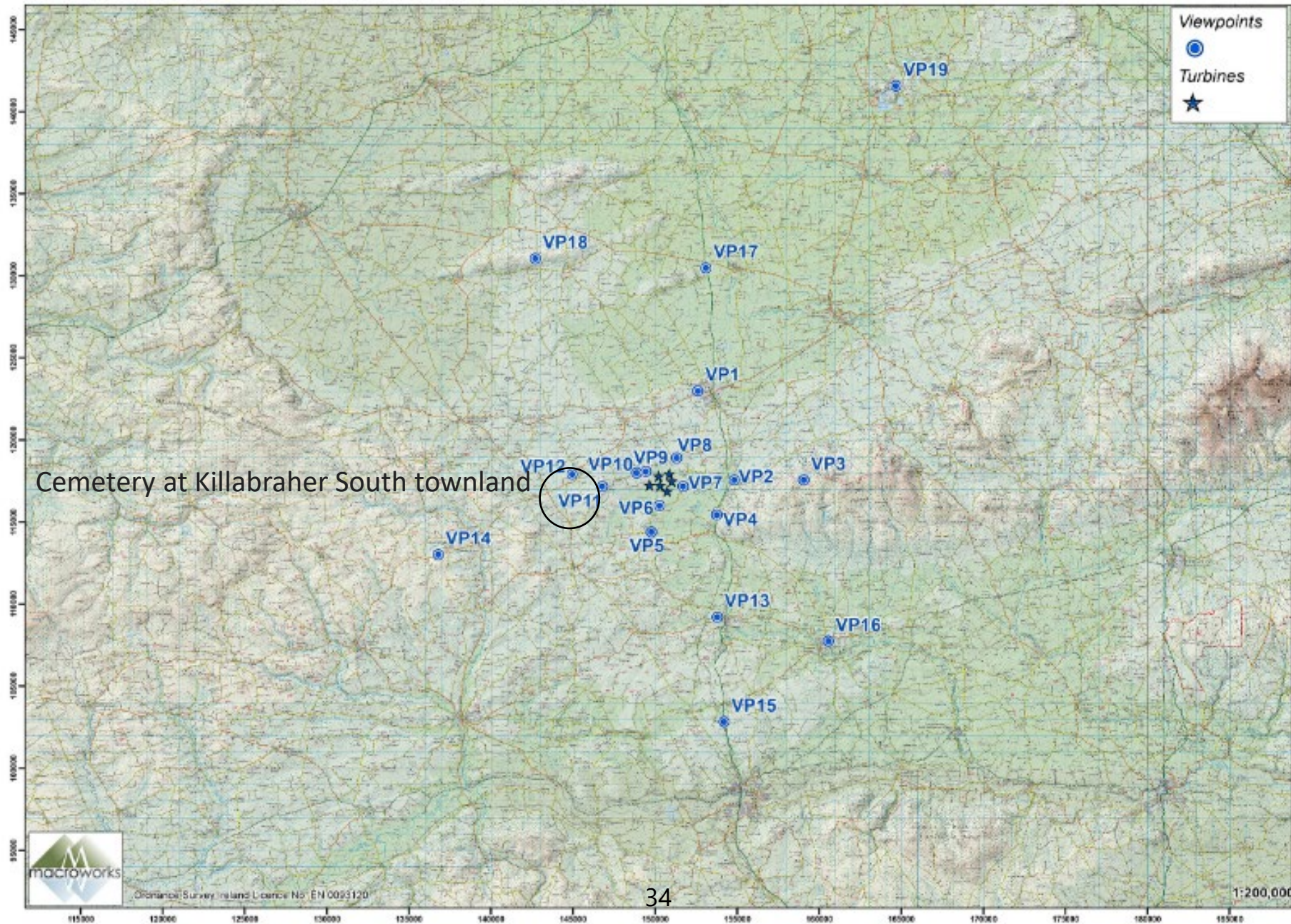
Photomontage

Part 2 of 2



Environmental Impact Assessment – VP11

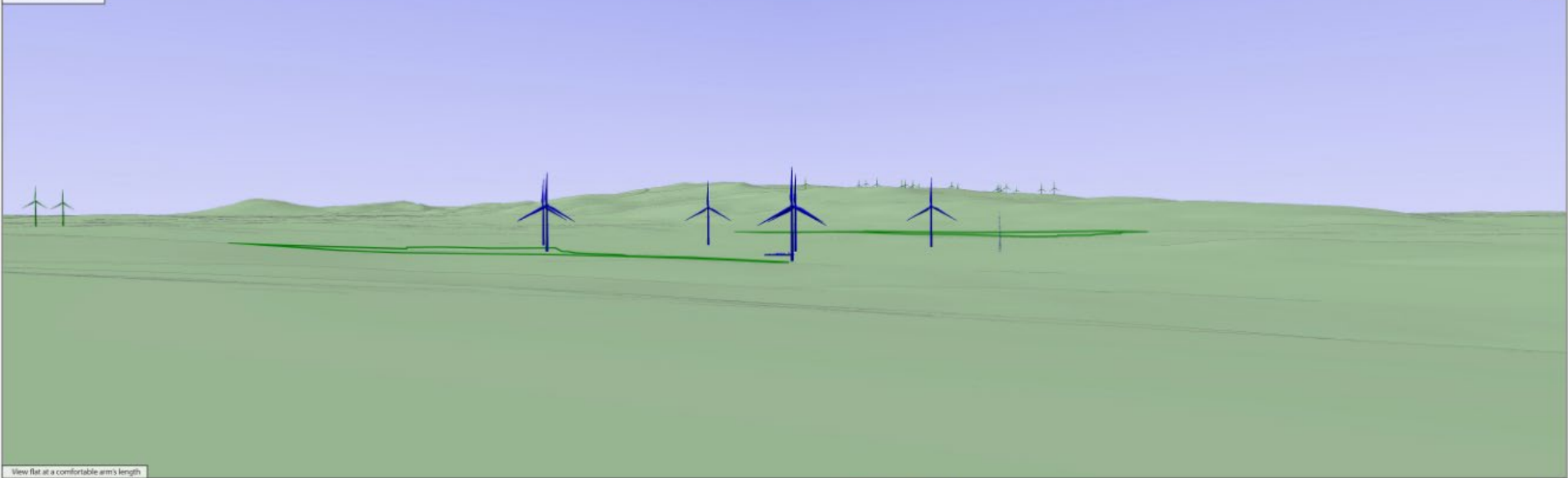
LVIA viewpoint locations selected for the Annagh Wind Farm project



Environmental Impact Assessment– VP11



Wireline Model



View flat at a comfortable arm's length

This perspective projection wireline model has been prepared and presented in accordance with the guidance set out in the Scottish Natural Heritage 2017 guidance 'Visual Representation of Wind Farms'.

- Proposed Turbines
- Existing Turbines
- Permitted Turbines
- Permitted Solar Farms



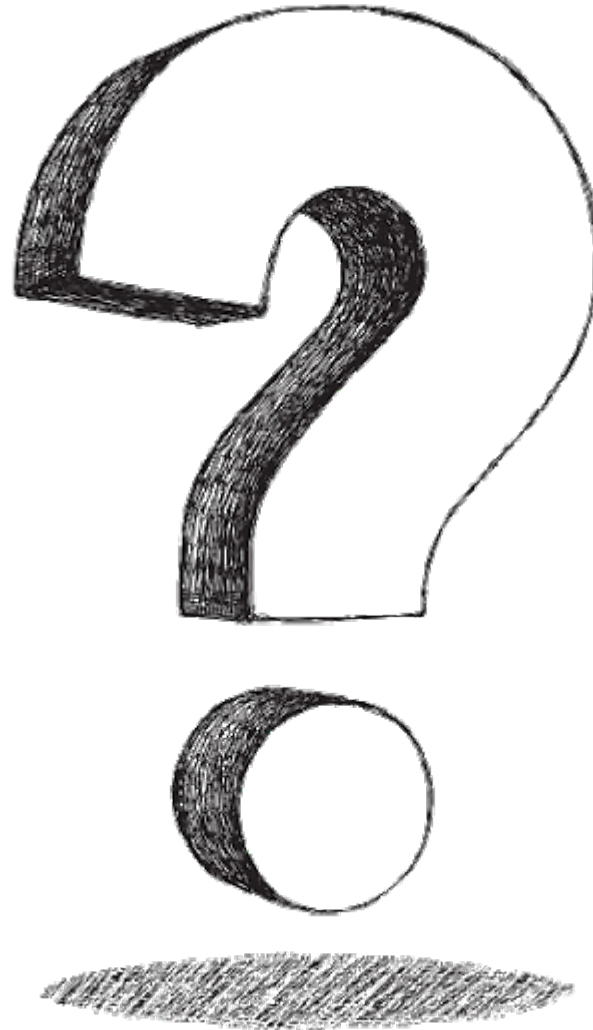
National Grid Coordinate (OS)	Horizontal Field of View	Date and Time	Direction (clockwise from Grid N)
Easting: 546753	53.5° (square projection)	22/04/2011 16:51	95°
Northing: 612223	Principal Distance: 912.5 m	Ceramic: Cones 30 Mark II	Distance to Nearest/Viable Turbine: 2.9 km
Elevation: 186.1 m	Report Size: 7x4.47 (A1) x 200 mm	Lens: 1.7m (AFL)	Permitted Turbine: 704
	Current printed image size: 828 x 288 mm	Ceramic Height:	

Photomontage



Virtual Consultation Room





- **Proposed Annagh Wind Farm**
 - 6 turbines
 - 36 MW
 - 21,249 Irish homes powered
- **Community Fund**
 - €178,494 per year
 - €1,000 per year (households <1km)
 - €500 per year (households >1km <2km)
- **Next Steps**
 - Virtual consultation room Q3 2021
 - Submission for planning in Q4 2021



Get in Touch

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