

Appendix 14

TELECOMMUNICATIONS IMPACT STUDY

 <small>Total Broadband Solutions</small>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Report

Ballinla Wind Farm Telecommunications Impact Assessment Report

Document Number:

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Executive Summary

Ai Bridges was commissioned to evaluate the possible impacts that the proposed wind farm at Ballinla, Co Offaly could have on existing telecommunications operator networks. The scope of work included field and desktop surveys to determine telecommunications network infrastructure that could be impacted by the proposed development. Consultations with telecom operators were also undertaken to assist in identifying network infrastructure that could be impacted by the proposed wind farm.

Telecommunications mast-sites with network infrastructure that could potentially be impacted by the development were identified and a field survey of each of these sites was carried out. During the field surveys, radio antennas with bearings in the direction of the wind farm were recorded. The findings of the field surveys are provided in Appendix B of this report.

During the consultation process, nineteen telecom operators were contacted. At the time of writing this report, fourteen of these operators have responded to the consultation request. The responses received from each of the telecom operators can be found in Section 3 of this report. Using the information obtained during the field survey assessments and consultation process a desktop impact analysis was carried out and all of the telecommunication operator networks were analysed using radio planning \ modelling software. Results from the impact analysis indicate that there are five microwave radio links in the vicinity of the proposed development.

Network analysis indicates that none of the radio links would be obstructed by the proposed turbines. The nearest turbine to any of the radio links is T01. 3D modelling indicates that there would be a clearance distance of 19.5 m between the blade-tip of T01 and the Fresnel Zone of the Virgin Media radio link between Rochfortbridge and Dunmurry Hill. At this distance there would be no impact on the radio link due to the proposed turbine.

Link No.	Telecom Operator	Radio Link Description	Nearest Turbine	Fresnel Zone Clearance Distance to Blade-tip of Turbine	Impact of Wind Farm / Observations
1	Eir	Ballykilleen to Barrysbrook.	T06	> 200 m	No Impacts.
2	Three Ireland	Edenderry to Mount Lucas.	T04	> 100 m	No Impacts.
3	Virgin Media	Rochfortbridge Convent School to Dunmurry Hill.	T01	19.5 m	No Impacts.
4	Vodafone	Edenderry Garda Station to Ballinla	T03	> 700 m	No Impacts.
5	Vodafone	Ballinla to Ballykilleen	T03	> 700 m	No Impacts.

Table 1. Microwave radio links that cross though/near the proposed wind farm development.

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Section 1 - Wind Farm Site Information

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1. Introduction

In this section a brief summary of the wind farm site is provided. Details regarding the site's geographic location and the proposed wind turbine dimensions are presented.

1.1 Wind Farm Site Information

The proposed wind farm development is located approximately 6 km west of Edenderry in County Offaly.

For this study, a seven-turbine layout has been considered. The co-ordinates of the turbines assessed in this report are provided in Appendix A. The dimensions of the turbines assessed in this report are provided in below in Table 2.

Wind Farm	Number of Turbines	Turbine Tip Height	Turbine Rotor Diameter
Ballinla	7	185 m	162 m

Table 2. Wind Farm Turbine Details

The locations of the proposed turbines are shown below in Figure 1.

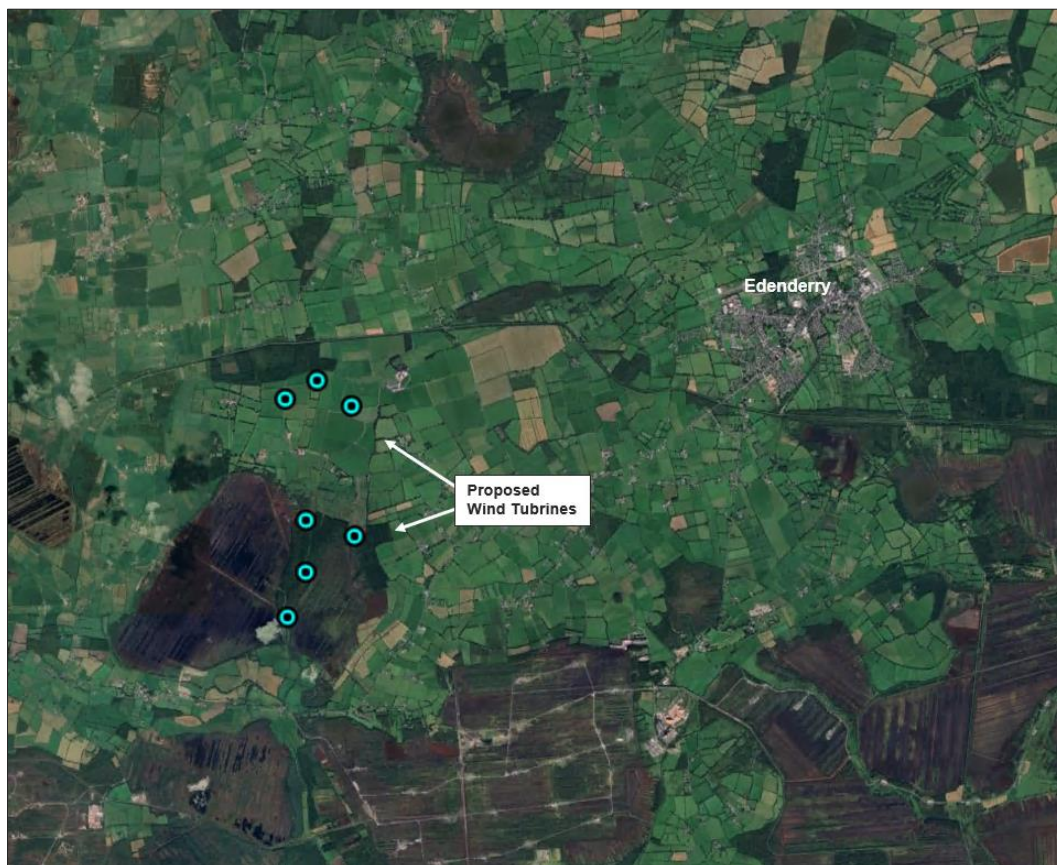




Figure 1. Location of proposed wind turbines.

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Section 2 - Methodology

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2. Introduction

In this section a brief summary of the Telecommunication Impact Study Methodology is provided.

2.1 Methodology

There are four primary stages in preparing and compiling a communication impact study:

- Telecom Operator Consultations
- Field Surveys
- Desktop Survey Network Modelling and Analysis
- Report Generation

A summary of each of these stages is provided below:

Telecom Operator Consultations

Consultations are commenced with telecom operators who are requested to raise any concerns they have regarding the impact of the proposed wind farm on their networks. The consultation process is used to assist in identifying telecoms infrastructure that could be impacted by the proposed wind farm development.

Field Surveys

Field surveys are undertaken and the co-ordinates of communication masts are recorded. During the field surveys of the communication sites, approximations of antenna size, bearing and height are made for the antennas installed on each of the masts surveyed.

Desktop Survey and Analysis

A desktop survey is carried out to plot the wind turbines in a radio planning tool. The radio planning tool uses GIS and terrain mapping databases to enable accurate modelling. A selection of mast-site coordinates is then obtained and inputs from various operators \ service providers are converted from Irish National Grid (Easting and Northing in meters) to degrees minutes seconds format and then imported into the radio planning tool.

This provides a means of graphically showing telecommunications sites in the vicinity relative to the proposed wind farm at Ballinla. Figure 2 below shows the proposed wind farm site boundary plotted in the radio planning tool.

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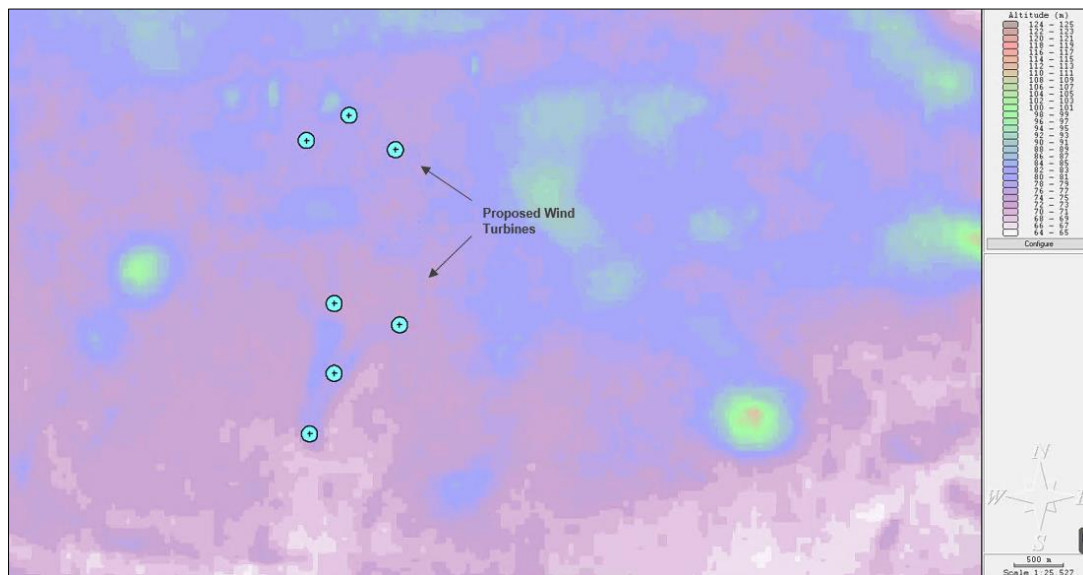


Figure 2. Proposed wind turbines plotted in Radio Planning Software

The findings from the consultations and field surveys are collated and the communications networks requiring further analysis are identified. Network modeling is used to assess the impact of the turbines on the communications networks.

The results from the network modeling are used to determine if mitigation measures are required. Figure 3 below shows an example of a microwave radio link that crosses over/near the proposed wind farm site modelled in radio planning software.

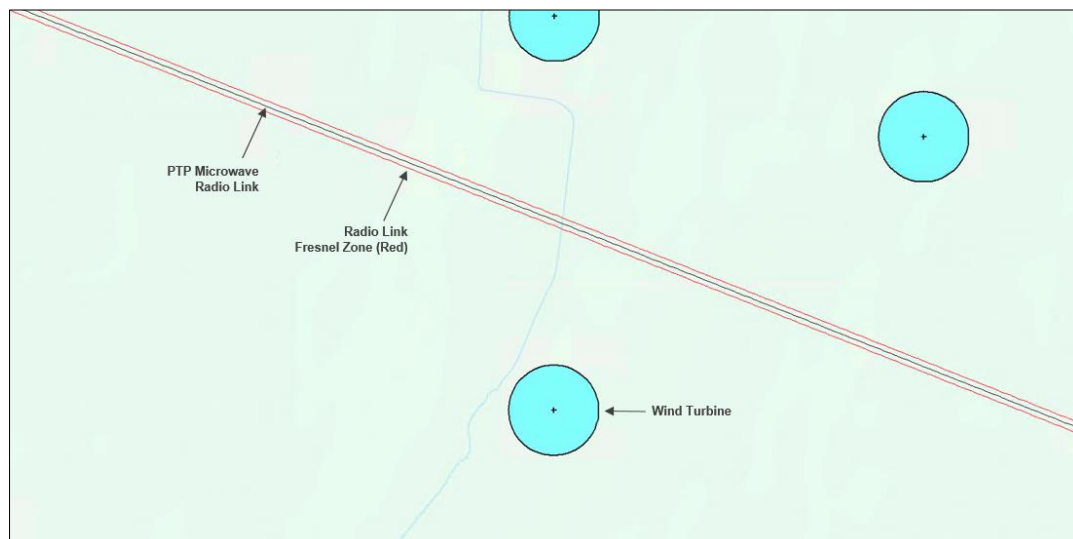


Figure 3. Example of microwave radio link crossing over/near the proposed wind farm development site modelled in radio planning software.

Report Generation

The final stage of the communications impact study process is to collate the data and present the findings & analysis into a report for submission.

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Section 3 - Telecom Operator Consultations

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3. Introduction


In this section the consultation process undertaken with telecom operators is described. The response received from each operator is also provided.

3.1 Telecom Operator Consultations

Consultations beginning in May 2025 were undertaken with telecom network operators to assist in identifying telecommunication infrastructure that could be impacted by proposed wind farm. The operators were requested to raise any concerns they may have regarding impacts to their networks due to the proposed wind farm development. Table 3 lists the telecom operators contacted and the issues raised by the operators. The responses received from each of the Telecom Operators are provided in Sections 3.1.1 to 3.1.19.

ID	Operator	Response Received (Yes/No)	Issues raised by Operator \ Observations.
1	2RN	Yes	No issues regarding transmission links; however, 2RN have requested that a protocol document be signed should the wind farm go ahead (regarding the TV broadcast service in the area).
2	Airwave	Yes	No issues.
3	An Garda Síochána	No	No response.
4	Coimisiún na Meán	Yes	No issues.
5	BT Ireland	Yes	No issues.
6	CIE/Irish Rail	Yes	CIE have stated that the wind farm would be located within the "Coordination Zone" of their GSM-R network (Mobile Network for railway lines). The nearest rail line to the proposed development is 15 km away and at this distance there will be no impact to the GSM-R network.
7	Dept. of Defence	No	No response.
8	Eir	Yes	Eir have raised a concern regarding one Licensed PTP microwave radio link.
9	Enet	Yes	No issues.
10	ESB Networks	No	No response.
11	Imagine Broadband	Yes	No issues.
12	AirNav Ireland	No	No response.
13	Uisce Éireann	Yes	No issues.
14	Offaly County Council	No	No response.
15	Tetra Ireland (TI)	Yes	No issues.
16	Three Ireland	Yes	Three Ireland have raised a concern regarding one Licensed PTP microwave radio link.
17	Viatel	Yes	No issues.
18	Virgin Media	Yes	Virgin Media have raised a concern regarding one Licensed PTP microwave radio link.
19	Vodafone Ireland	Yes	Vodafone have raised a concern regarding two Licensed PTP microwave radio links.

Table 3. Telecom Operators Consulted

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3.1.1 2RN Response to Consultations

2RN provided the following email response to consultations:

*"2rn have no fixed linking in the area outlined in your email below.
There is a risk of interference to broadcast services in the area and we would ask that a protocol be signed between 2rn and the developer should the site go ahead."*

3.1.2 Airwave Response to Consultations

Airwave provided the following email response to consultations:

"We have no infrastructure in this area."

3.1.3 An Garda Síochána Response to Consultations

To date no response has been received.

3.1.4 Coimisiún na Meán Response to Consultations

Coimisiún na Meán provided the following email response to consultations:

"Coimisiún na Meán does not perform an in-depth analysis of the effect of wind turbines or electrical sub stations on FM networks. However, we are not aware of any issues from existing windfarms or electrical sub stations into existing FM networks. Also, the proposed sub station is not located close to any existing or planned FM transmission sites."

3.1.5 BT Ireland Response to Consultations

BT provided the following email response to consultations:

"BT no longer have a radio microwave network."

3.1.6 CIE/Irish Rail Response to Consultations

CIE provided the following email response to consultations:


*"The proposed site lies within the GSM-R (Mobile Network for Railways) coordination zone.
Please see below:*

From a study carried out by the ANFR (Agence Nationale des Frequences in France), the output calls for 2 main recommendations by defining 2 main zones as follows:

- 1 - Exclusion zone: wind farm not less than 5 Km from antenna*
- 2 - Coordination zone: 5Km<wind farm <30Km: this area, coordination between operators is required to fix any issue and impact on the signal propagation"*

3.1.7 Department of Defence Response to Consultations

To date no response has been received.

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3.1.8 Eir Response to Consultations

Eir provided the following email response to consultations:

"There is no change to the Eir transmission over the proposed area the link mentioned below would be still at risk and turbines should be placed to avoid it with a interference buffer."

#	Band	A-end				Height		B-end			Height
Link1	11Ghz	OY_4220	53°17'41.78"N	7° 4'56.22"W	25	<--->	OY_2227	53°20'10.88"N	7°15'26.72"W	26	

3.1.9 Enet Response to Consultations

Enet provided the following email response to consultations:

"This won't affect our current network."

3.1.10 ESB Networks Response to Consultations

To date no response has been received.

3.1.11 Imagine Broadband Response to Consultations

Imagine Broadband provided the following email response to consultations:

"At present imagine have no microwave links in this area."

3.1.12 AirNav Ireland Response to Consultations

To date no response has been received.

3.1.13 Uisce Éireann (Irish Water) Response to Consultations

Irish Water provided the following email response to consultations:

"I can confirm that there are no UÉ communication links traversing the proposed wind farm."

3.1.14 Offaly County Council Response to Consultations

To date no response has been received.

3.1.15 Tetra Ireland (TI) Response to Consultations

Tetra Ireland provided the following email response to consultations:

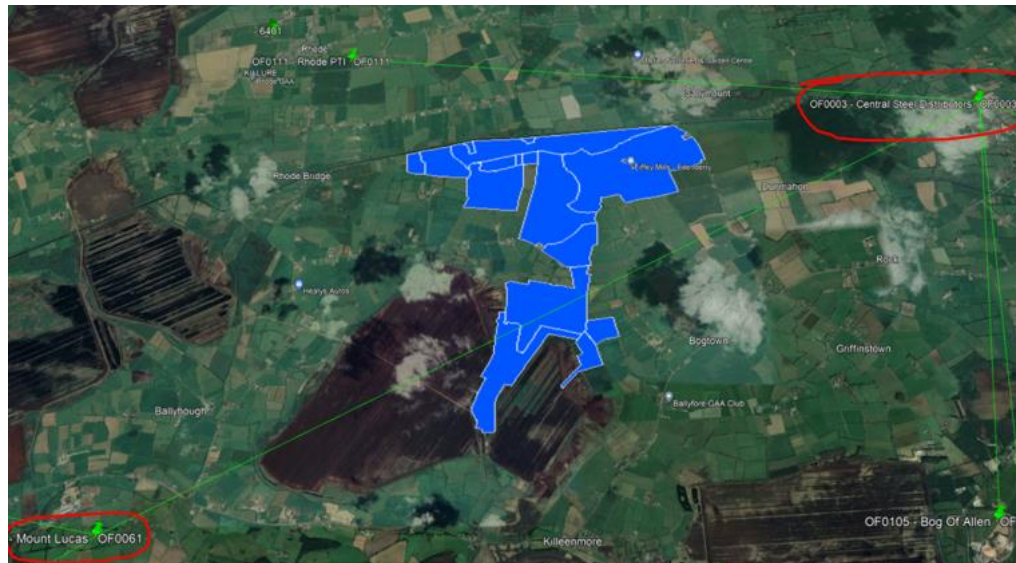
"There have not been any changes to the network in the area (i.e. We anticipate no impact from the development as proposed). Can you please ensure that the development is reviewed by eir."

3.1.16 Three Ireland Response to Consultations

Three Ireland provided the following email response to consultations:

"There's been no changes to our transmission in this area (i.e. we have one transmission link that passes through this area). Please see details below"

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Link Name / ID	Band MHz\GHz	Link Length	Site A					Site B				
			Lat	Long	Easting	Northing	Ant Height	Lat	Long	Easting	Northing	Ant Height
20320	18	11263	53.34253	-7.07379	261743	232851	29000	53.29342	-7.22157	251960	227269	28500

3.1.17 Viatel Response to Consultations

Viatel provided the following email response to consultations:

"No impact."

3.1.18 Virgin Media Response to Consultations

Virgin Media provided the following email response to consultations:

*"Yes Virgin Media Ireland DO Have links in this area
We would like a 50 mt buffer zone all around the beam. See details below"*

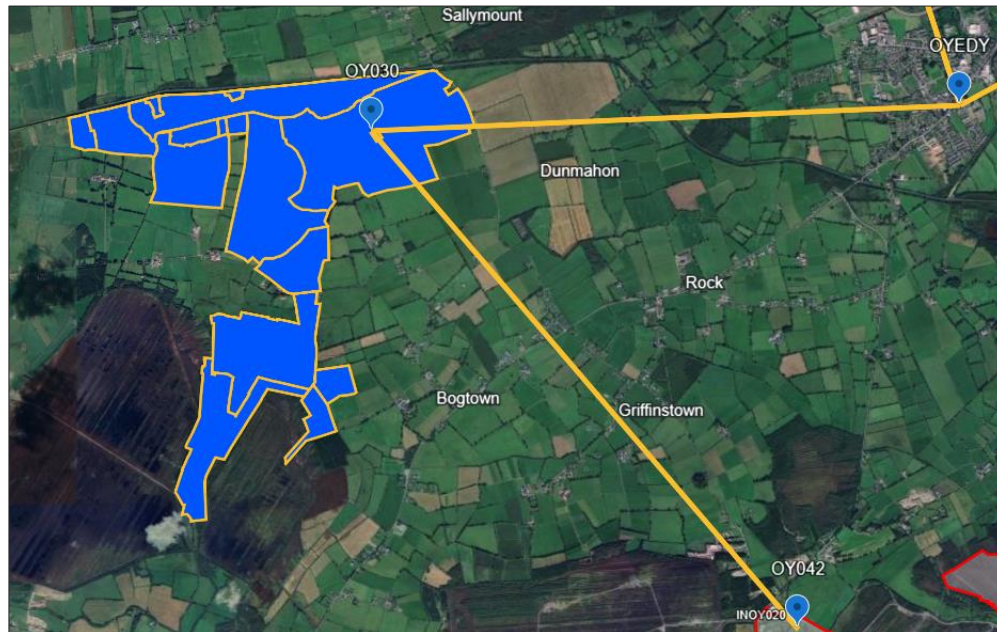
Link Name / ID	Band MHz\GHz	Link Length	Site A			Site B		
			Lat	Long	Ant Height	Lat	Long	Ant Height
Rochfort Bridge Convent	11GHz	34.6km	53°24'54.44"N	7°18'12.95"W	10mts	53°11'54.34"N	6°56'0.17"W	10mts

3.1.19 Vodafone Ireland Response to Consultations

Vodafone provided the following email response to consultations:

"There are two active Vodafone links passing through the proposed area. A clearance of 30m from the first Fresnel zone is desired. Details below."

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Link Name / ID	Band GHz	Link Length Km	Site A			Site B		
			Northing (Irish Grid)	Easting (Irish Grid)	Ant Height m	Northing (Irish Grid)	Easting (Irish Grid)	Ant Height m
OYEDY-OY030-XPIC	23	5.271	232203	262627	20	231903	257364	15
OY030-OY042-XPIC	23	5.839	231903	257364	20	227541	261246	40

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Section 4 - Field Surveys

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4. Introduction

To assess the accuracy of the network information (radio link co-ordinates, antenna heights etc.) provided by the telecom operators, field surveys of the telecom-mast sites in the vicinity of the proposed wind farm were carried out.

During the field surveys, radio antennas with bearings in the direction of the wind farm were recorded. The telecom mast-sites surveyed for this study (labelled Mast-Site A to Mast-Site H) are shown relative to the proposed wind farm site in Figure 4 below. The findings from the field surveys of the mast-sites are presented in Appendix B of this report.



Figure 4. Telecom Mast-Sites Surveyed.

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Section 5 - Desktop Survey Analysis

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5. Introduction

Based on the findings of the consultation process, there are three Telecom Operators with a network in the vicinity of the proposed development that requires a detailed technical analysis:

- Eir Network
- Three Ireland Network
- Virgin Media Network
- Vodafone Network

Sections 5.1 to 5.4 below outlines the desktop survey analysis findings* for the Telecom Operator Networks listed above.

5.1 Eir Network Analysis

The Eir network in the vicinity of the proposed wind farm consists of one Point-to-Point (PTP) microwave radio link. The radio link is listed below in Table 4 and a Plan View of the Eir network is shown in Figure 5.

Link ID	Link Description
Eir_L1	PTP microwave radio link from Ballykilleen to Barrysbrook

Table 4. Eir Radio Links requiring Analysis



Figure 5. Eir Radio Network – Plan View

** The Desktop Survey Analysis findings are subject to accuracy of the information (GPS co-ordinates, turbine dimensions, etc.) provided to Ai Bridges.*

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Figure 6 below shows a close-up plan view of the Eir radio link relative to the proposed wind turbines. The plan view shows that the nearest of the proposed turbines to the Eir link is T06.

Desktop analysis indicates that there would be a Clearance Distance of 227 m between the blade-tip of T06 and the Fresnel Zone (F1) of the radio link between Ballykilleen and Barrysbrook. At this distance there would be no impact on the radio link due to the proposed turbine.

Table 5 below provides a brief summary of the network analysis for the Eir network in the vicinity of the proposed wind farm.

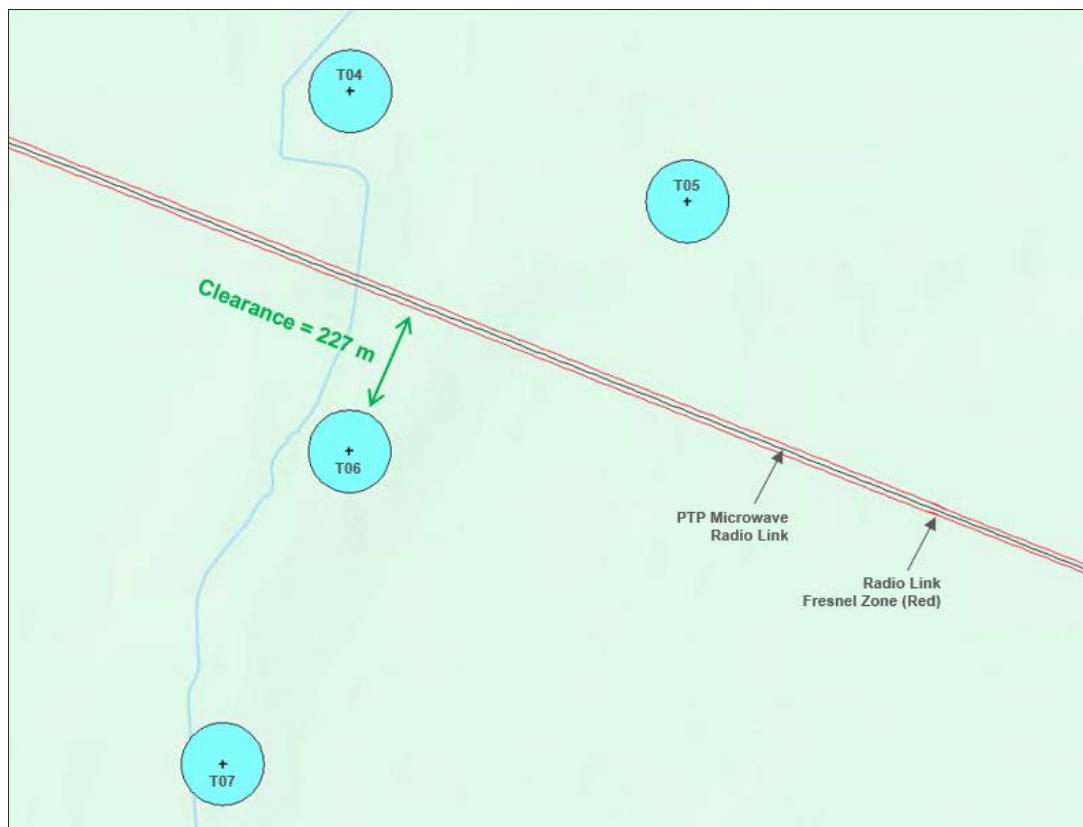


Figure 6. Eir Network – Close-up Plan View.

Link ID	Link Description	Nearest Turbine	Fresnel Zone (F1) Clearance Distance	Wind Farm Impacts / Observations
Eir_L1	Ballykilleen to Barrysbrook.	T06	> 200 m	No impacts.

Table 5. Eir Network – Analysis Summary

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5.2 Three Ireland Network Analysis

The Three Ireland network in the vicinity of the proposed wind farm consists of one Point-to-Point (PTP) microwave radio link. The radio link is listed below in Table 6 and a Plan View of the Three Ireland network is shown in Figure 7.

Link ID	Link Description
3IRL_L1	PTP microwave radio link from Edenderry to Mount Lucas.

Table 6. Three Ireland Radio Links requiring Analysis

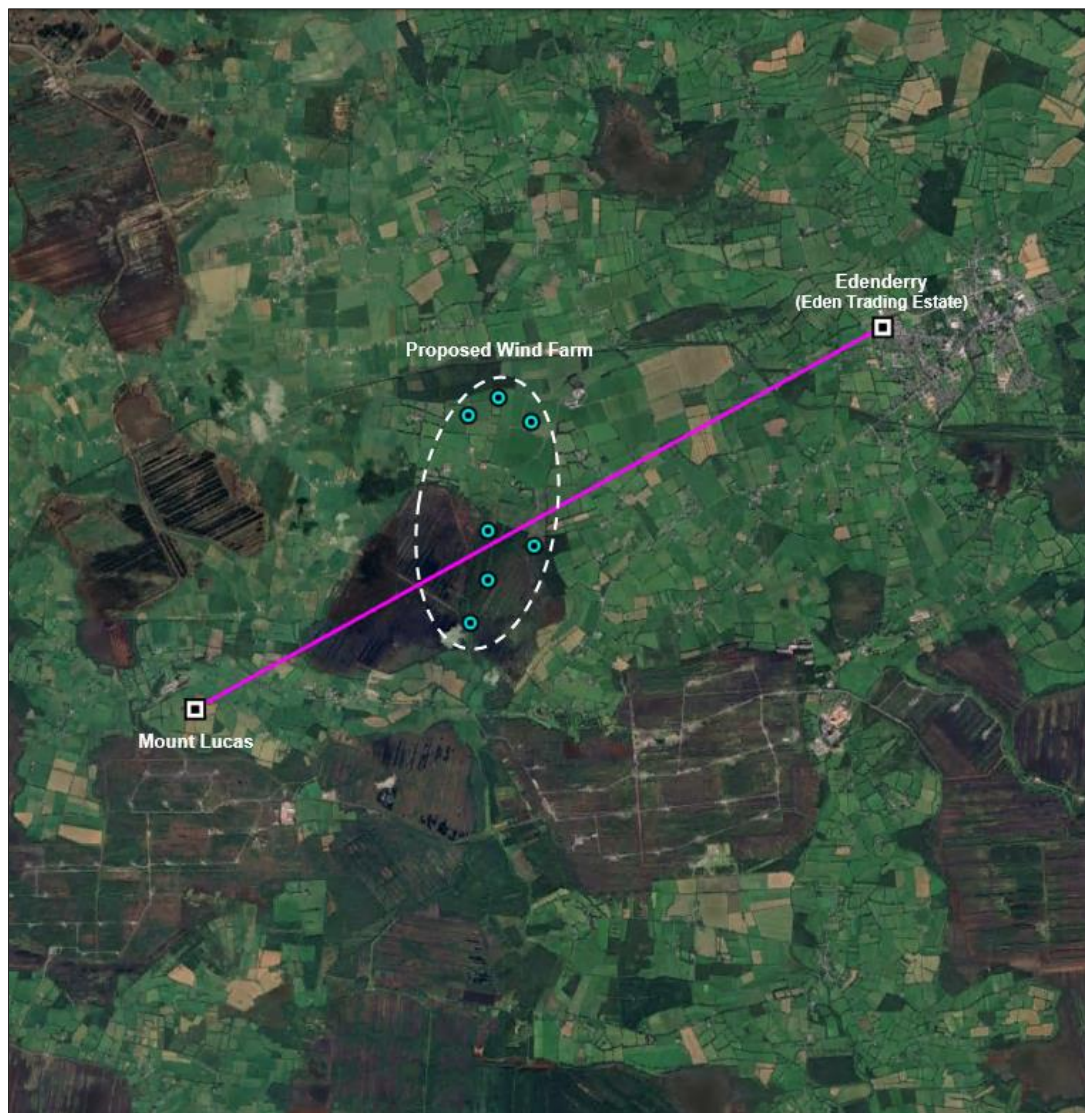


Figure 7. Three Ireland Radio Network – Plan View

Figure 8 below shows a close-up plan view of the Three Ireland radio link relative to the proposed wind turbines. The plan view shows that the nearest of the proposed turbines to the radio link is T04.

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Desktop analysis indicates that there would be a Clearance Distance of 110 m between the blade-tip of T04 and the Fresnel Zone (F1) of the radio link between Edenderry and Mount Lucas. At this distance there would be no impact on the radio link due to the proposed turbine.

Table 7 below provides a brief summary of the network analysis for the Three Ireland network in the vicinity of the proposed wind farm.

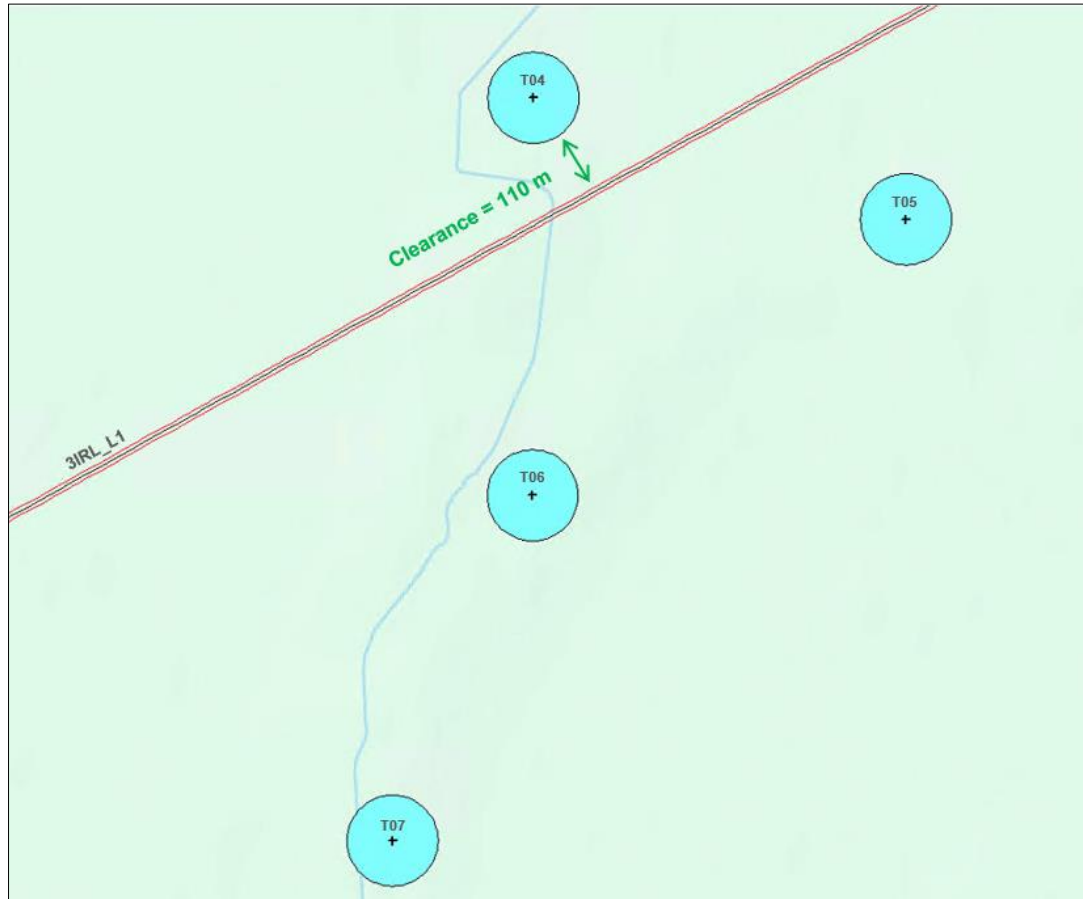


Figure 8. Three Ireland Network – Close-up Plan View.

Link ID	Link Description	Nearest Turbine	Fresnel Zone (F1) Clearance Distance	Wind Farm Impacts / Observations
3IRL_L1	Edenderry to Mount Lucas	T04	> 100 m	No impacts.

Table 7. Three Ireland Network – Analysis Summary

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5.3 Virgin Media Network Analysis

The Virgin Media network in the vicinity of the proposed wind farm consists of one Point-to-Point (PTP) microwave radio link. The radio link is listed below in Table 8 and a Plan View of the Virgin Media network is shown in Figure 9.

Link ID	Link Description
VM_L1	PTP microwave radio link from Rochfortbridge Convent School to Dunmurry Hill.

Table 8. Virgin Media Radio Links requiring Analysis

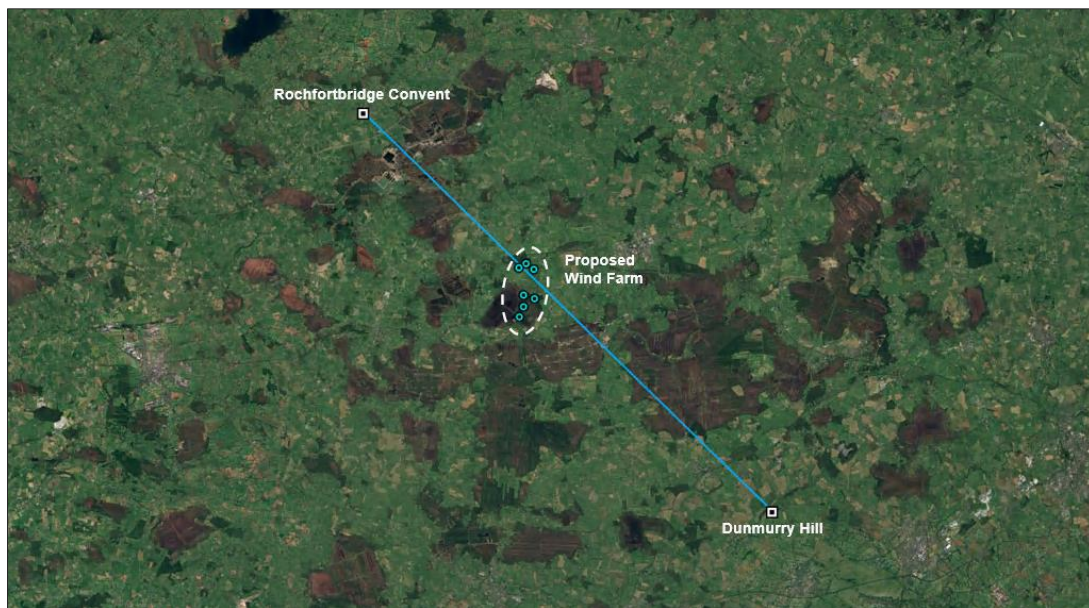


Figure 9. Virgin Media Radio Network – Plan View

Figure 10 below shows a Close-up view of the Virgin Media microwave radio link relative to the proposed wind turbines. The plan view indicates that Turbine T01 would be relatively near to the Fresnel Zone of the radio link.



Figure 10. Virgin Media Network – Close-up Plan View.

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To further assess the potential impact of the T01, the radio link has been modelled in 3D and the Clearance Distance between the Fresnel Zone (F1) of the link and the blade-tip of T01 has been calculated. A 3D view of the microwave radio links relative to the proposed turbines is shown below in Figure 11.

The results of the 3D analysis indicate that there would be a clearance distance of 19.5 m between the blade-tip of T01 and the Fresnel Zone of the radio link. At this distance there would be no impact on the radio link due to the proposed turbine.

Table 9 below provides a brief summary of the network analysis for the Virgin Media network in the vicinity of the proposed wind farm.

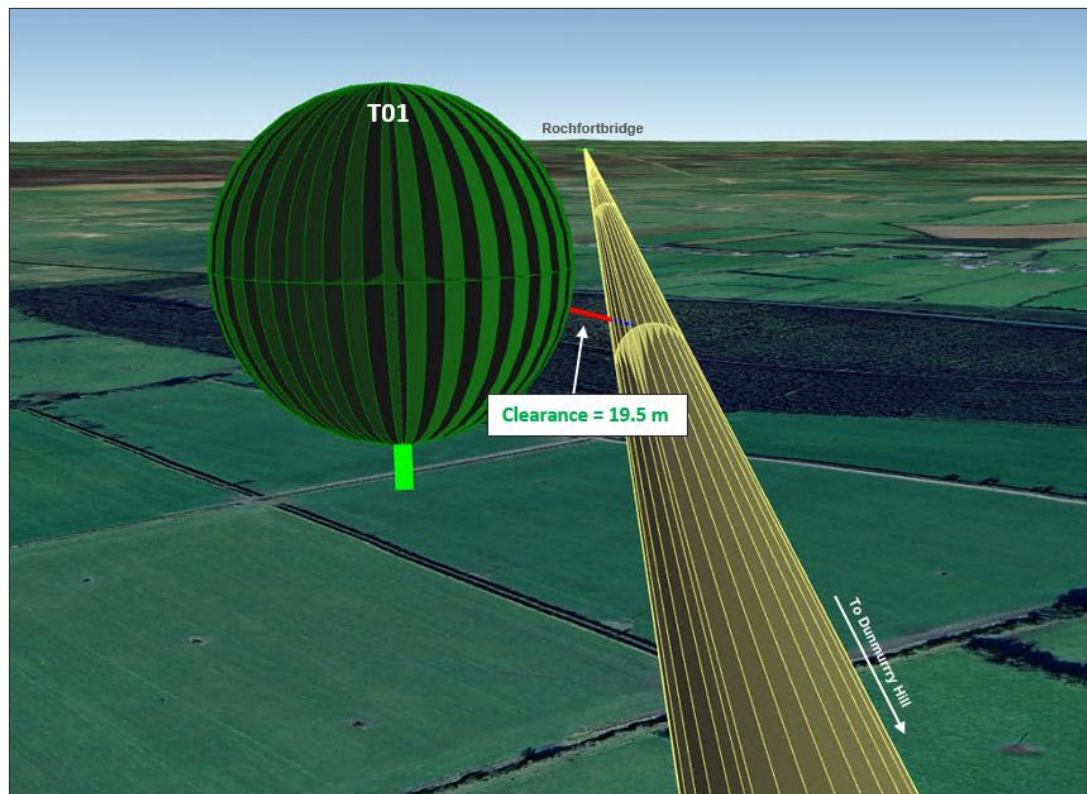


Figure 11. Virgin Media Network – 3D View.

Link ID	Link Description	Nearest Turbine	Fresnel Zone (F1) Clearance Distance	Wind Farm Impacts / Observations
VM_L1	Rochfortbridge Convent School to Dunmurry Hill.	T01	19.5 m	No impacts

Table 9. Virgin Media Network – Analysis Summary

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5.4 Vodafone Ireland Network Analysis

The Vodafone network in the vicinity of the proposed wind farm consists of two Point-to-Point (PTP) microwave radio links. The radio links are listed below in Table 10 and a Plan View of the Vodafone network is shown in Figure 12.

Link ID	Link Description
VF_L1	PTP microwave radio link from Edenderry Garda Station to Ballinla.
VF_L2	PTP microwave radio link from Ballinla to Ballykilleen

Table 10. Vodafone Radio Links requiring Analysis

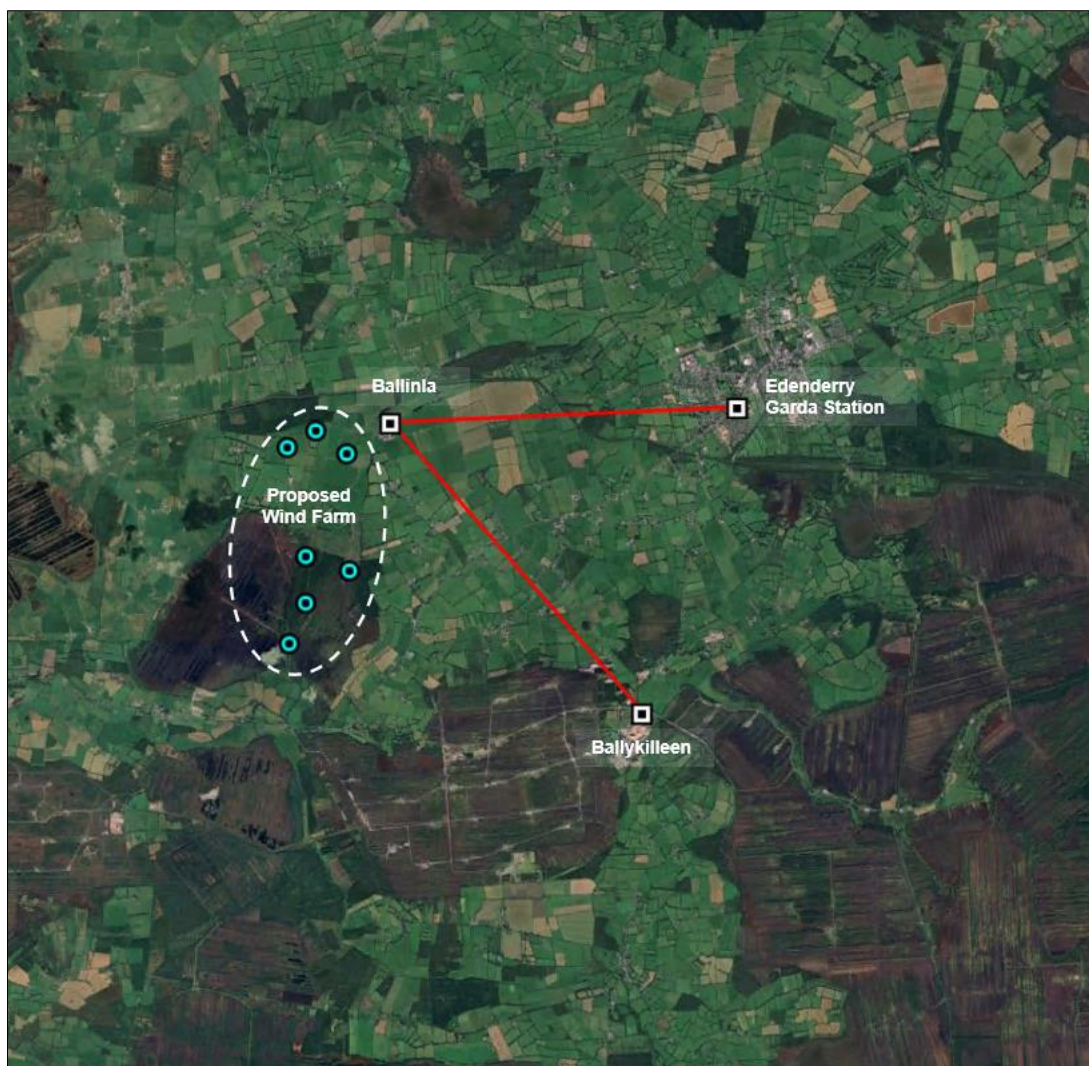


Figure 12. Vodafone Radio Network – Plan View

Figure 13 below shows a close-up view of the Vodafone microwave radio links relative to the proposed wind turbines. Desktop survey analysis indicates that the PTP radio links are over 700 m from the nearest of the proposed turbines (T03). At this distance there will be no impact to the radio link due to the wind farm development.

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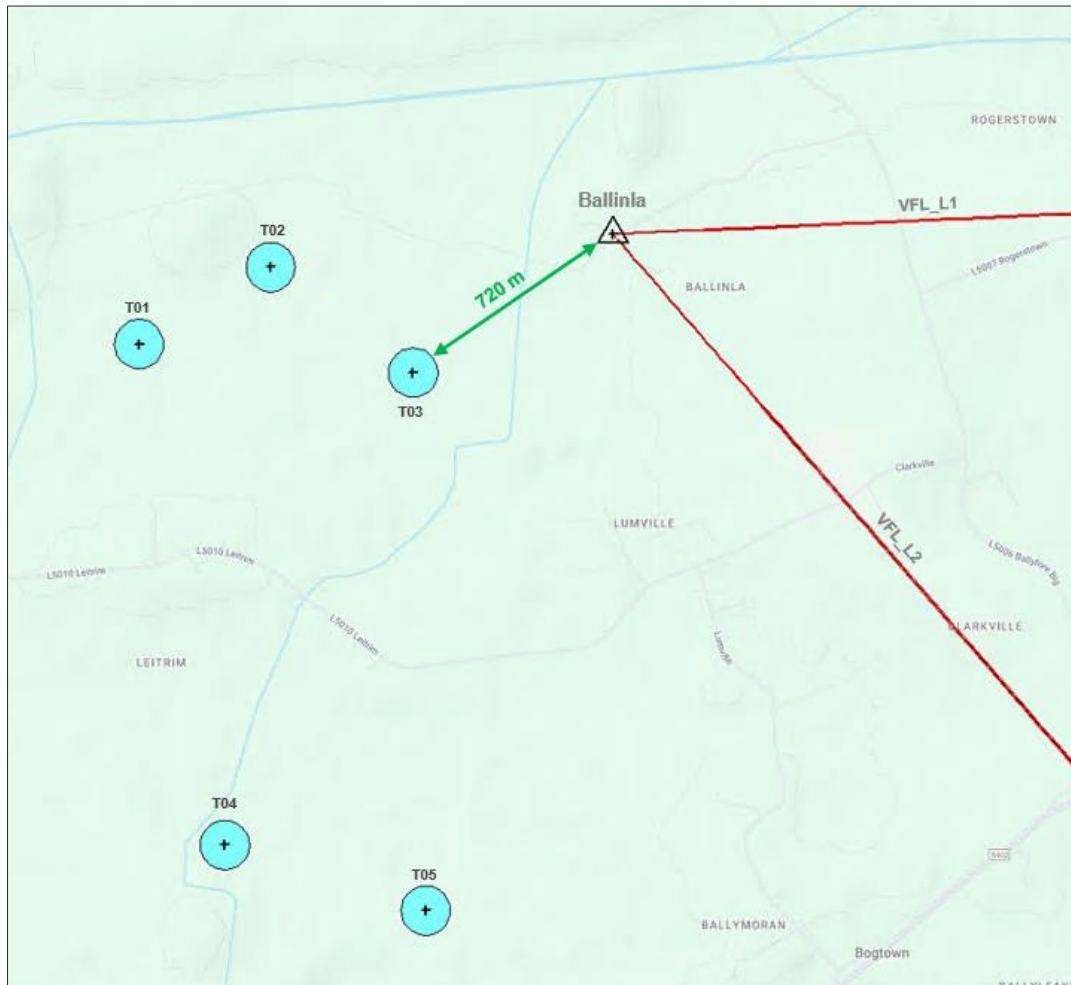


Figure 13. Vodafone Network – Close-up Plan View.

Link ID	Link Description	Nearest Turbine	Fresnel Zone (F1) Clearance Distance	Wind Farm Impacts / Observations
VF_L1	Edenderry Garda Station to Ballinla	T03	> 700 m	No Impacts.
VF_L2	Ballinla to Ballykillkeen	T03	> 700 m	No Impacts.

Table 11. Vodafone Network – Analysis Summary

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Section 6 - Conclusions

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6. Conclusions

From the findings made in this report the following conclusions have been made:

- Results from the telecom operator consultations and desktop survey analysis indicate that there are five radio links that cross over/near the proposed development. These radio links are below listed in Table 12.
- Network analysis indicates that none of the radio links would be impacted by the proposed turbine layout.

Telecom Operator	Link ID	Radio Link Description	Nearest Turbine	Fresnel Zone Clearance Distance to Blade-tip of Turbine	Impact of Wind Farm / Observations
Eir	Eir_L1	Ballykilleen to Barrysbrook.	T06	> 200 m	No Impacts.
Three Ireland	3IRL_L1	Edenderry to Mount Lucas.	T04	> 100 m	No Impacts.
Virgin Media	VM_L1	Rochfortbridge Convent School to Dunmurry Hill.	T01	19.5 m	No Impacts.
Vodafone	VF_L1	Edenderry Garda Station to Ballinla	T03	> 700 m	No Impacts.
	VF_L2	Ballinla to Ballykilleen	T03	> 700 m	No Impacts.

Table 12. Radio links in vicinity of proposed wind farm development

- Figure 14 below has been provided to illustrate each of the telecommunication links that cross though/near the proposed wind farm development.

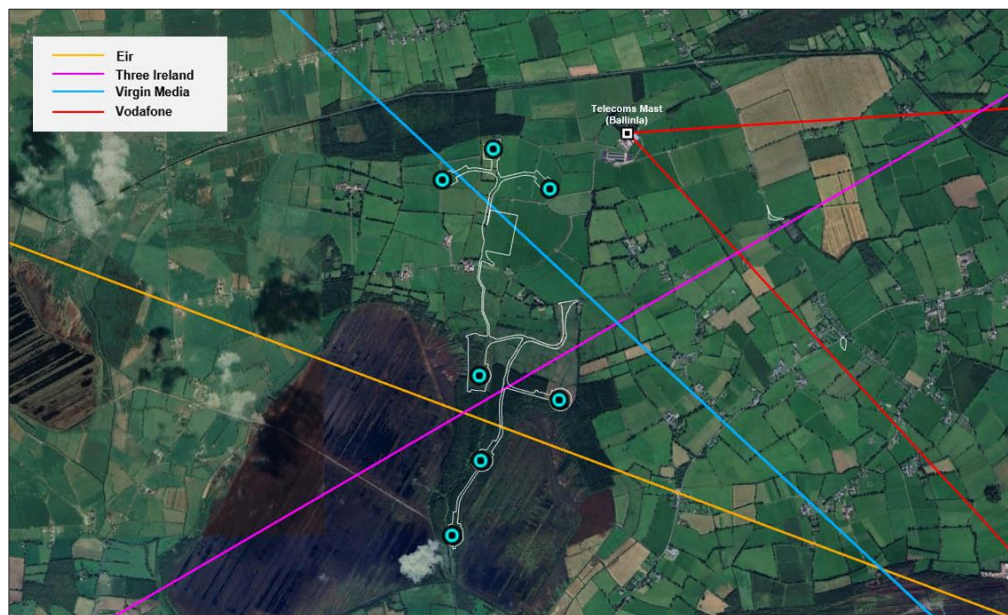



Figure 14. Plan View of Radio links that cross through/near the proposed wind farm development.

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APPENDIX A – Wind Farm Turbine Coordinates


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Appendix A – Wind Farm Turbine Co-ordinates

The co-ordinates of the turbine layout considered in this Telecommunications Impact Study are provided in the table below.

Turbine ID	Co-ordinates (ITM)	
	Latitude	Longitude
T01	655751	731543
T02	656181	731802
T03	656655	731460
T04	656053	729897
T05	656718	729689
T06	656060	729191
T07	655818	728575

Table 13. Wind Farm Layout - Turbine Co-ordinates

	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

APPENDIX B – Field Survey Findings

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Appendix B – Field Survey Findings

The telecom mast-sites surveyed for this Telecoms Impact Study are shown relative to the proposed wind farm site in Figure 15 below.



Figure 15. Telecom Mast-Sites shown relative to proposed wind farm.

The findings from the field surveys of each of the mast-sites are presented below.

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site A (Ballinla)

Telecommunications Mast-Site A is located in the townland of Ballina, Togher, Co Offaly and is within 1 km of the proposed wind farm development. A photo of the mast-structure at this location is shown below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 14.



Figure 16. Mast A

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast A	None

Table 14. Field Survey Summary – Mast-Site A

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site B (Edenderry Garda Station)

Telecommunications Mast-Site B is located at Edenderry Garda Station, Co Offaly and is approximately 6 km east of the proposed wind farm. A photo of the mast at this location is shown in the figure below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 15.



Figure 17. Mast B

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast B	Vodafone

Table 15. Field Survey Summary – Mast B

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site C (Ballykilleen)

Telecommunications Mast-Site C is located within the grounds of Edenderry Power Station, Co Offaly and is approximately 5 km southeast of the proposed wind farm. A photo of the mast-structure at this location is shown in the figure below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 16.



Figure 18. Mast C

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast C	Eir, Vodafone

Table 16. Field Survey Summary – Mast C

AiBridges Total Broadband Solutions	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site D (Rochfortbridge Convent)

Telecommunications Mast-Site D within the grounds of the Convent Primary School in Rochfortbridge, Co Westmeath. From the findings of the Field Survey the radio antenna to Dunmurry Hill is not located on the building as referenced by Virgin Media in their consultation response. The actual location of the radio antenna is on the adjacent school building as shown below in Figure 20. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 17.



Figure 19. Mast-site D (No radio antenna at location referenced by Virgin Media)



Figure 20. Mast-site D (Actual location of radio antenna aligned to Dunmurry Hill)

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast D	Virgin Media

Table 17. Field Survey Summary – Mast D

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site E (Dunmurry Hill)

Telecommunications Mast-Site E is located on Dunmurry Hill, Co Kildare and is approximately 19 km southeast of the proposed wind farm. A photo of the mast-structure at this location is shown in the figure below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 18.



Figure 21. Mast E

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast E	Virgin Media

Table 18. Field Survey Summary – Mast E

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site F (Edenderry)

Telecommunications Mast-Site F is located in the Eden Trading Estate in Edenderry town and is approximately 5 km east of the proposed wind farm. A photo of the mast-structure at this location is shown in the figure below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 19.



Figure 22. Mast F

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast F	Three Ireland

Table 19. Field Survey Summary – Mast F

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site G (Mount Lucas)

Telecommunications Mast-Site G is located in the in the townland of Mount Lucas and is approximately 4 km southwest of the proposed wind farm. A photo of the mast-structure at this location is shown in the figure below. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 20.



Figure 23. Mast-Site G

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast G	Three Ireland

Table 20. Field Survey Summary – Mast-Site G

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Ballinla Telecommunications Impact Assessment	Approved: KH	Date: 14/05/25

Mast-Site H (Barrybrook)

Telecommunications Mast-Site H is located in the townland of Barrybrook, Togher, Co Offaly and is approximately 6 km west of the proposed wind farm. A photo of the mast at this location is shown in the figure below.

The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 21.



Figure 24. Mast-Site H

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast H	Eir

Table 21. Field Survey Summary – Mast-Site H