



APPENDIX 15-6

TELECOMMUNICATIONS IMPACT ASSESSMENT

 <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
Title: Crumhach Wind Farm Telecommunications Impact Assessment	Approved: KH	Date: 19/06/26

Report

Crumhach Wind Farm Telecommunications Impact Assessment Report

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Executive Summary

Ai Bridges was commissioned to evaluate the possible impacts that the proposed wind farm at Crumhach, Co Sligo could have on existing telecommunications operator networks. The proposed development is located at the site of the existing Dunneill / Kingsmountain wind farm in County Sligo.

During consultations with telecom operators (undertaken by MKO Ireland), it was found that thirteen radio links cross over/near the proposed wind farm site. The scope of work for this study included field and desktop surveys to assess the possible impact on these microwave radio links.

Using the information obtained during the field survey assessments and consultation responses, a desktop impact analysis was carried out and all of the telecommunication operator networks were analysed using radio planning \ modelling software (2D and 3D).

The findings of the network analysis indicate that the proposed turbines would not obstruct any of the PTP radio links that cross over/through the proposed development. As none of the PTP radio links would be impacted by the proposed development, no mitigation measures would be required.

Operator	Link ID	Link Description	Observations	Mitigation Measures
Enet	Enet_L1	Dunowla to St Farnan's GAA Cartron	No impacts	N.A.
	Enet_L2	Dunowla to Dromore West NS	No impacts	N.A.
	Enet_L3	Dunowla to Ballina	No impacts	N.A.
	Enet_L4	Ballina to Kings Mt SS	No impacts	N.A.
Vodafone	VF_L1	Ballina to Kings Mt SS	No impacts	N.A.
2RN	2RN_L1	Truskmore to Castlebar (DTT)	No impacts	N.A.
	2RN_L2	Truskmore to Castlebar (FM)	No impacts	N.A.
Imagine	IMG_L1	Dunowla to Ballina	No impacts	N.A.
Three	3IRL_L1	Tawnaghmore to Dunowla	No impacts	N.A.
	3IRL_L2	Dunowla to Homeland, Skreen	No impacts	N.A.
Eir	Eir_L1	Dunowla to Owenykeevan	No impacts	N.A.
	Eir_L2	Dunowla to Easkey Garda Stn.	No impacts	N.A.
	Eir_L3	Dunowla to Truskmore	No impacts	N.A.

Table 1. Radio links that cross over/near the proposed wind farm.

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Section 1 - Wind Farm Site Information

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1. Introduction

In this section a brief summary of the proposed wind farm development 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 is located approximately 5 km southeast of Dromore West in County Sligo. The coordinates of the turbines assessed in this report are provided in Appendix A. The dimensions of the turbines assessed in this report are provided below in Table 2.

Wind Farm	Number of Turbines	Turbine Tip Height	Turbine Rotor Diameter
Crumhach	17	180 m	150 m

Table 2. Wind Farm Turbine Details

The location of the proposed wind farm development is shown below in Figure 1.



Figure 1. Location of proposed wind farm.

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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 Crumhach. Figure 2 below shows the proposed wind turbines plotted in the radio planning tool.

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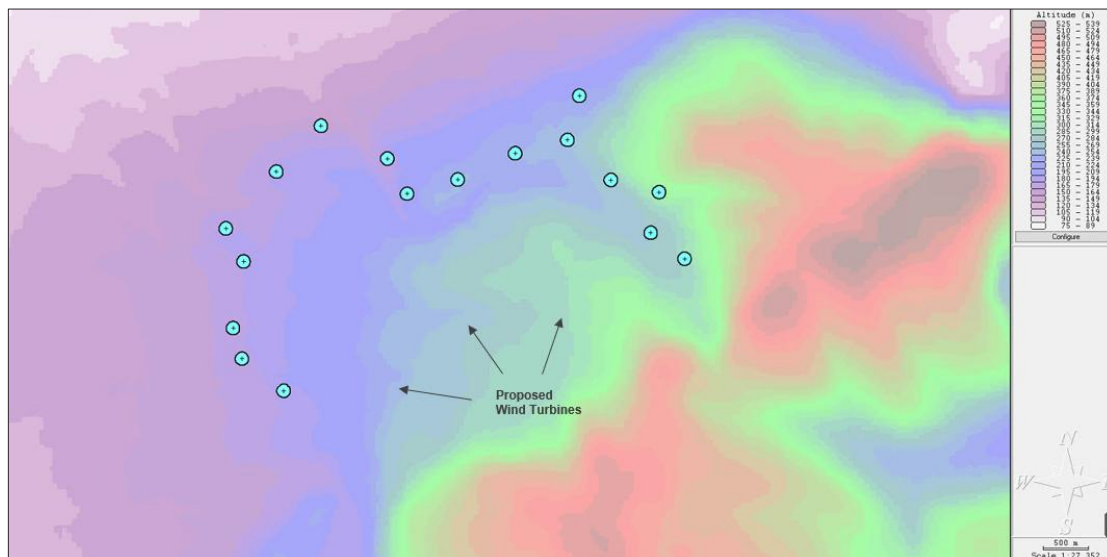


Figure 2. Proposed Wind Turbines plotted in Radio Planning Software

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 wind farm boundary modelled in radio planning software.

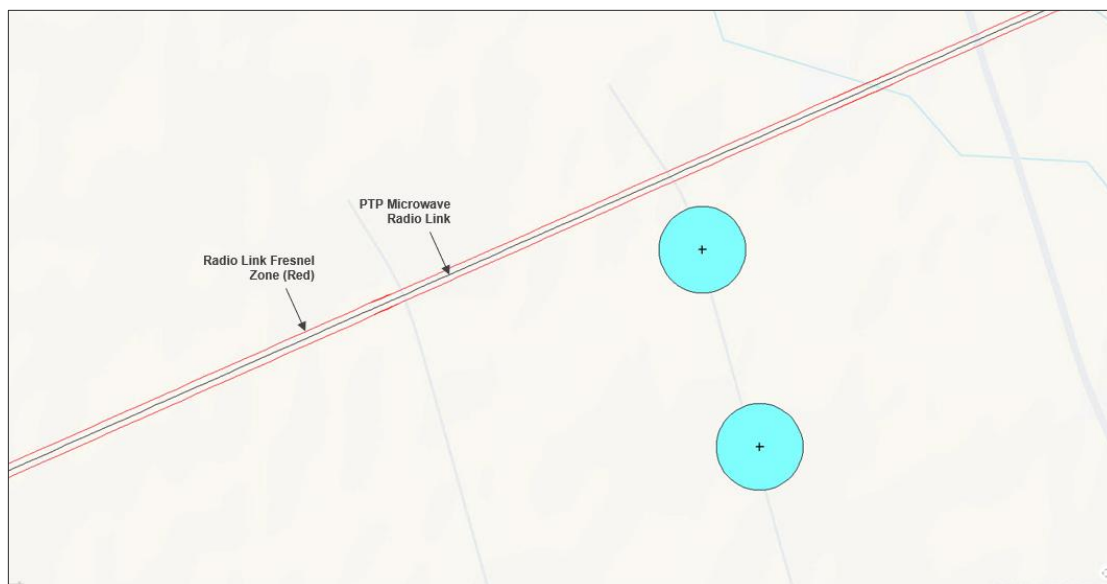


Figure 3. Example of microwave radio link crossing over/near the proposed wind farm boundary modelled in radio planning software.

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.

3.1 Telecom Operator Consultations

In January 2021 MKO contacted relevant Telecom Operators to determine if they had any concerns regarding the proposed wind farm development. Of the Telecom Operators contacted, the six operators listed in Table 2 responded stating that they have radio links in the vicinity of the proposed development.

Operator	Link ID	Link Description	Link Type	Link Distance	Link Frequency
Enet	Enet_L1	Dunowla - St Farnan's GAA Cartron	PTP	4.25	23 GHz
	Enet_L2	Dunowla - Dromore West NS	PTP	5.75	18 GHz
	Enet_L3	Dunowla - Ballina	PTP	24.87	11 GHz
	Enet_L4	Ballina - Kings Mt SS	PTP	25.72	15 GHz
Vodafone	VF_L1	Ballina - Kings Mt SS	PTP	25.72	11 GHz*
2RN	2RN_L1	Truskmore - Castlebar	PTP (DTT)	82.32	642 MHz
	2RN_L2	Truskmore - Castlebar	PTP (FM)	82.32	88.2 MHz
Imagine	IMG_L1	Dunowla - Ballina	PTP	24.87	6 GHz
Three	3IRL_L1	Tawnaghmore - Dunowla	PTP	26.15	15 GHz
	3IRL_L2	Dunowla - Homeland, Skreen	PTP	5.83	26 GHz
Eir	Eir_L1	Dunowla - Owenykeevan	PTP	8.95	11 GHz*
	Eir_L2	Dunowla - Easkey Garda Stn.	PTP	12.99	11 GHz*
	Eir_L3	Dunowla - Truskmore	PTP	34.78	11 GHz*

Table 3. Telecom Operators with radio links in the vicinity of the proposed wind farm development.

* Assumed Frequency.

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Section 4 - Field Surveys

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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 K) 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 six Telecom Operators with networks in the vicinity of the proposed development that requires a detailed technical analysis:

- Enet Network
- Vodafone Network
- 2RN Network
- Imagine Broadband Network
- Three Ireland Network
- Eir Network

Sections 5.1 to 5.6 below outline the desktop survey analysis findings* for the Telecom Operator Networks listed above.

5.1 Enet Network Analysis

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

Link ID	Link Description
Enet_L1	PTP microwave radio link from Dunowla to St Farnan's GAA
Enet_L2	PTP microwave radio link from Dunowla to Dromore West NS
Enet_L3	PTP microwave radio radio link from Dunowla to Ballina
Enet_L4	PTP microwave radio link from Ballina to Kings Mt SS

Table 4. Enet Radio Links requiring Analysis

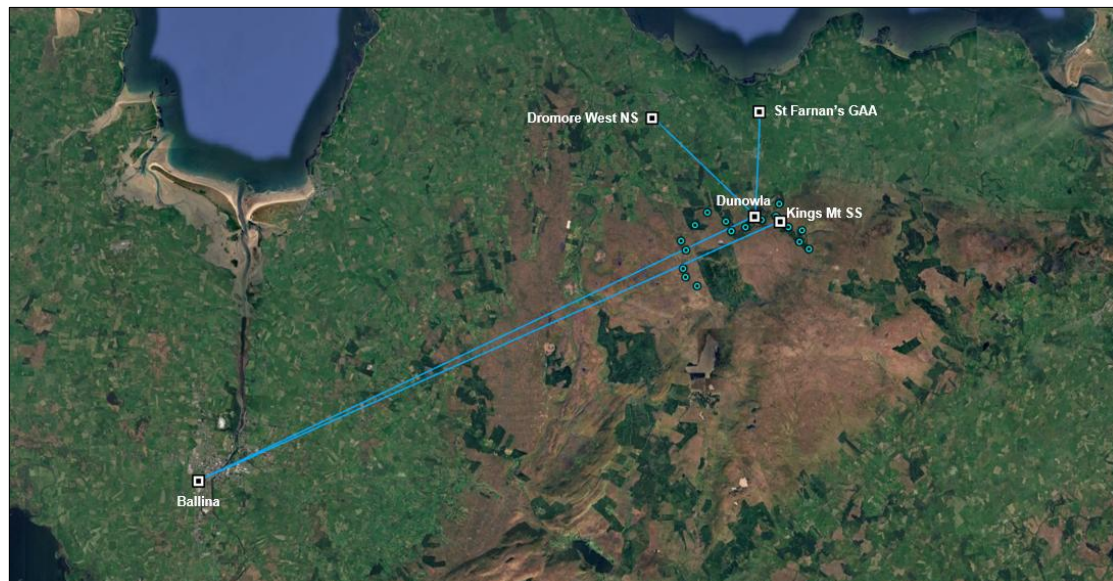


Figure 5. Enet Radio Network – Plan View

* 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 Enet microwave radio links relative to the proposed wind turbines. The plan view indicates that Turbine T04 could potentially impact the Enet microwave radio link between Dunowla and Ballina (Enet_L3), and T01 is relatively near to the radio link between Ballina and Kingsmountain Substation (Enet_L4).

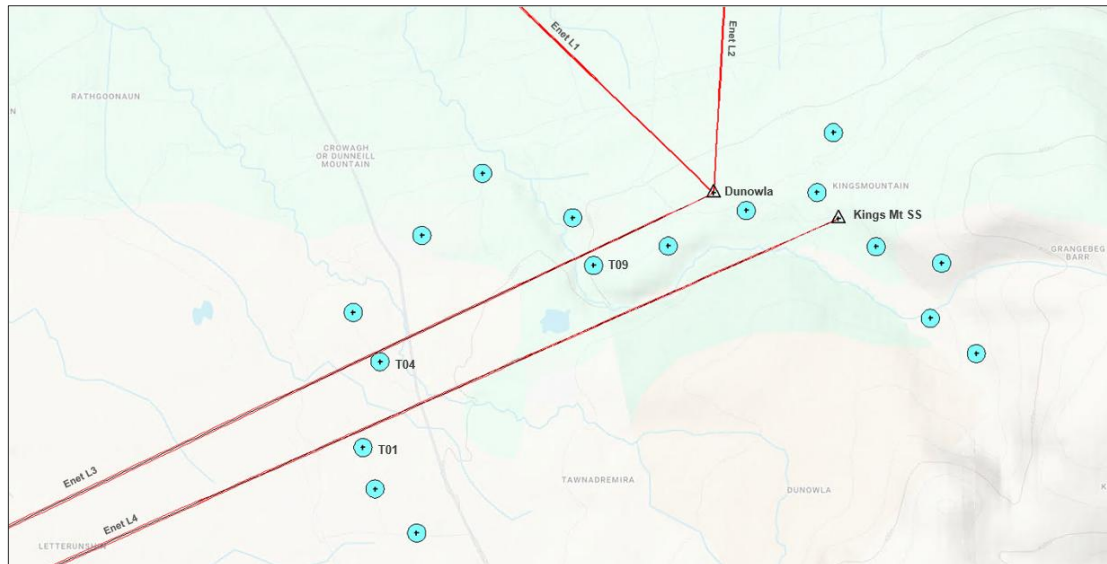


Figure 6. Enet Network – Close-up Plan View.

To further assess the potential impact of the proposed turbines, the radio links have been modelled in 3D and the Clearance Distances between the Fresnel Zone(s) of the links and the blade-tip of the turbines have been calculated.

A 3D view of the microwave radio link between Dunowla and Ballina is shown below in Figure 7. The results of the 3D analysis indicate that Turbine T04 would not obstruct the Fresnel Zone of the radio link (i.e. the operation of Enet_L3 would not be impacted by T04).

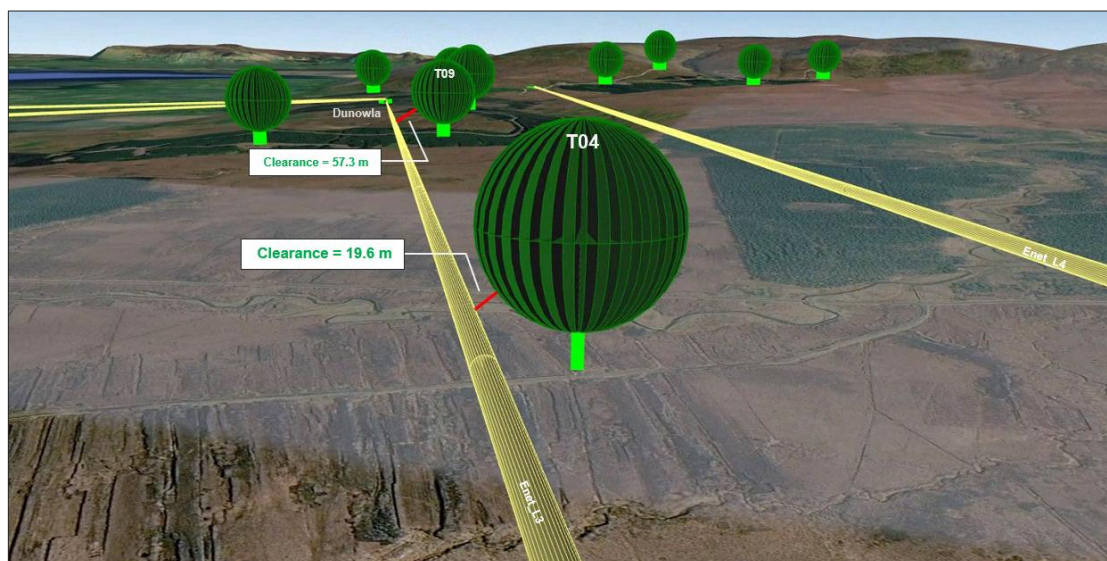


Figure 7. Enet_L3 (Dunowla to Ballina) – 3D View.

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A 3D view of the microwave radio link between Ballina and Kingsmountain Substation (relative to T01) is shown below in Figure 8. The results of the 3D analysis indicate that T01 would not obstruct the Fresnel Zone of the radio link (i.e. the operation of Enet_L4 would not be impacted).

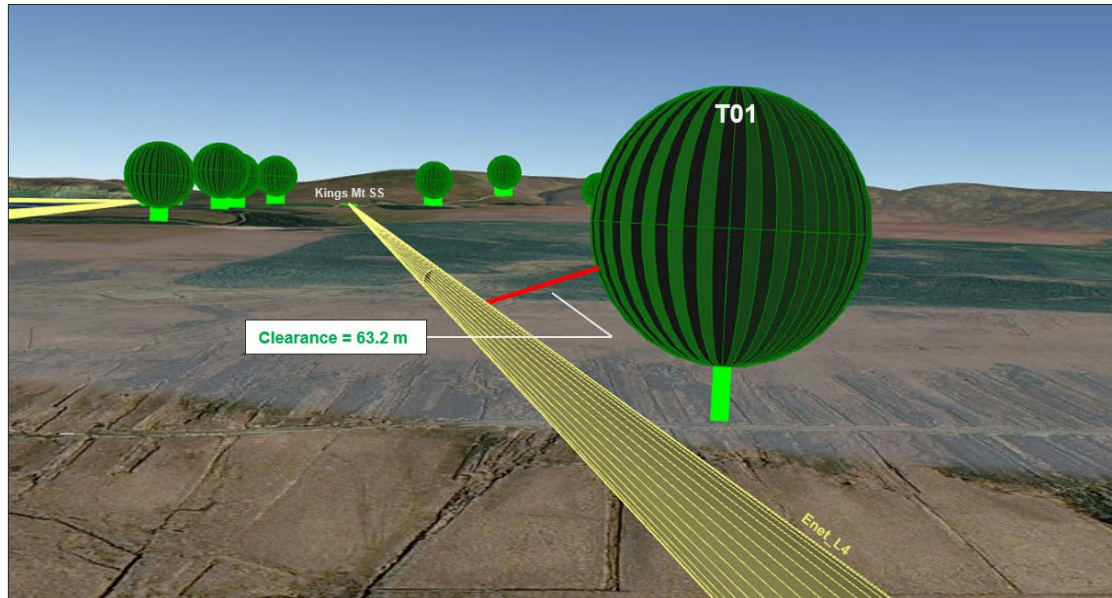


Figure 8. Enet_L4 (Ballina to Kingsmountian SS) – 3D View.

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

Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (F1) Clearance / Interference	Observations
Enet_L1	Dunowla to St Farnan's GAA	T11	> 50 m Clearance	No impacts.
Enet_L2	Dunowla to Dromore West NS	T11	> 50 m Clearance	No impacts.
Enet_L3	Dunowla to Ballina	T04	19.6 m Clearance	No impacts.
		T09	> 50 m Clearance	
Enet_L4	Ballina to Kings Mt SS	T01	> 50 m Clearance	No impacts.

Table 5. Enet Network – Analysis Summary

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5.2 Vodafone Ireland Network Analysis

The Vodafone 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 Vodafone network is shown in Figure 9.

Link ID	Link Description
VF_L1	PTP microwave radio link from Ballina to Kings Mt SS.

Table 6. Vodafone Radio Links requiring Analysis

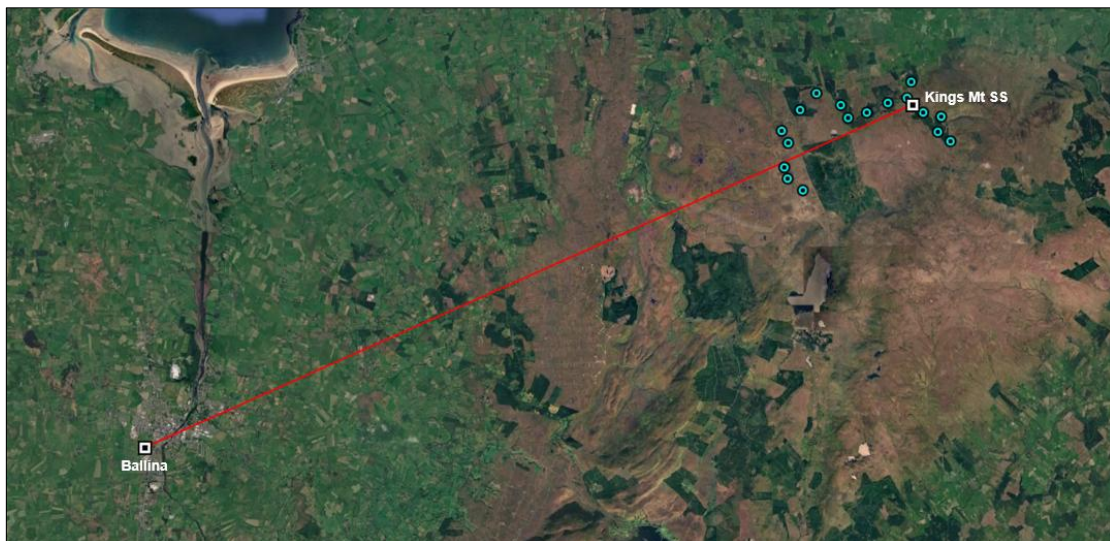


Figure 9. Vodafone Radio Network – Plan View

Figure 10 below shows a close-up plan view of the Vodafone microwave radio link relative to the proposed wind turbines. The plan view indicates that the radio link is relatively near turbine T01.

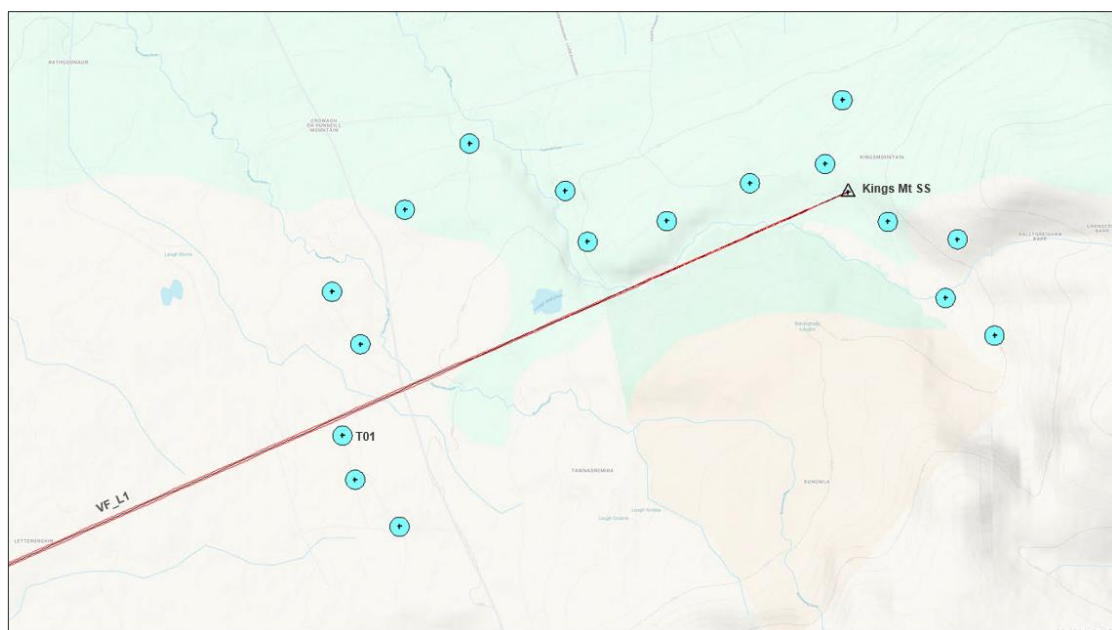


Figure 10. Vodafone Network – Close-up Plan View.

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

The results of the 3D analysis indicate that T01 would not obstruct the Fresnel Zone of the radio link (i.e. the operation of the Vodafone radio link would not be impacted).

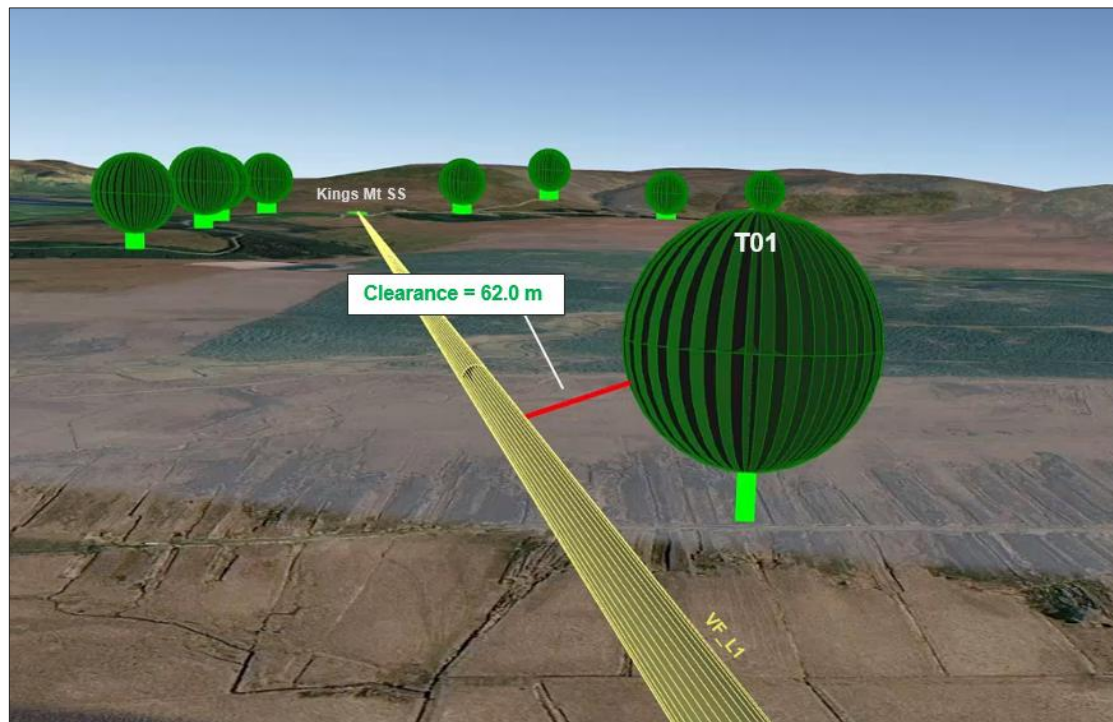


Figure 11. Vodafone Network – 3D View.

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

Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (F1) Clearance / Interference	Observations
VF_L1	Ballina to Kings Mt SS	T01	> 50 m Clearance	No Impacts.

Table 7. Vodafone Network – Analysis Summary

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5.3 2RN Network Analysis

The 2RN network in the vicinity of the proposed wind farm consists of one PTP (Point-to-Point) DTT radio link and one PTP FM radio link. The radio links are listed below in Table 8 and a Plan View of the 2RN network is shown in Figure 12.

Link ID	Link Description
2RN_L1	PTP DTT radio link from Truskmore to Castlebar
2RN_L2	PTP FM radio link from Truskmore to Castlebar

Table 8. 2RN Radio Links requiring Analysis



Figure 12. 2RN Radio Network – Plan View

Figure 13 below shows a close-up plan view of the 2RN radio links relative to the proposed wind turbines. The plan view indicates that the radio link is relatively near turbine T16.

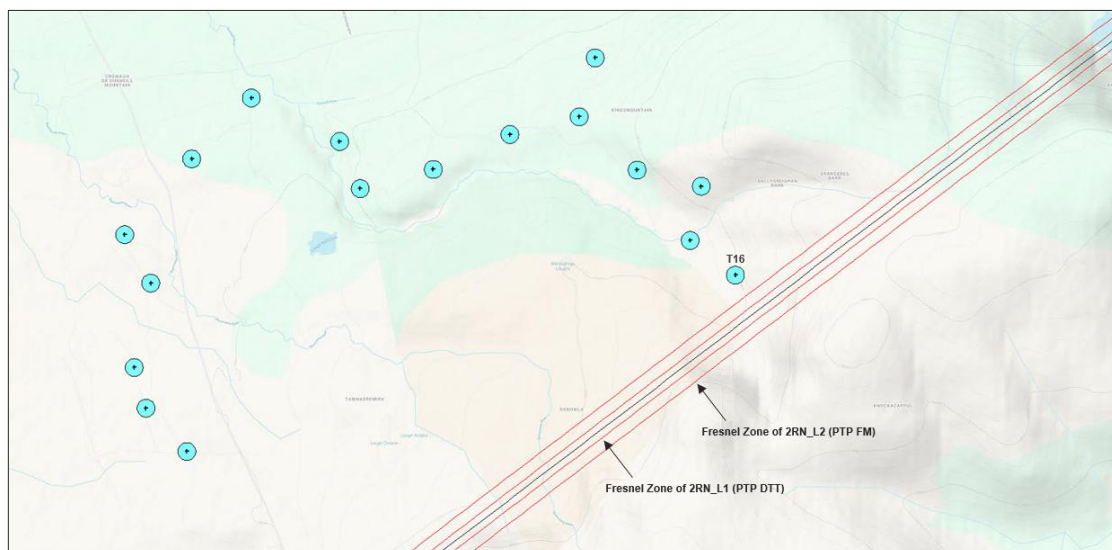


Figure 13. 2RN Network – Close-up Plan View.

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To further assess the potential impact of the proposed turbine, the 2RN radio links have been modelled in 3D and the Clearance Distances between the Fresnel Zone(s) of the links and the blade-tip of T16 have been calculated. A 3D view of the DTT radio link between Truskmore and Castlebar is shown below in Figure 14. A 3D view of the FM radio link between Truskmore and Castlebar is shown in Figure 15.

The results of the 3D analysis indicate that the turbine would not obstruct the Fresnel Zone of either of the 2RN radio links (i.e. the operation of the 2RN radio links would not be impacted).

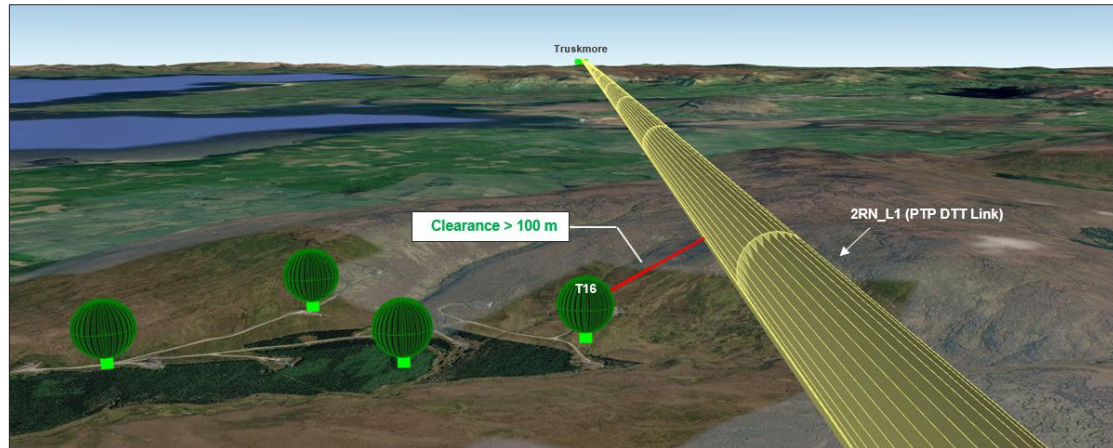


Figure 14. 2RN Link 1 Truskmore to Castlebar (DTT) – 3D View.

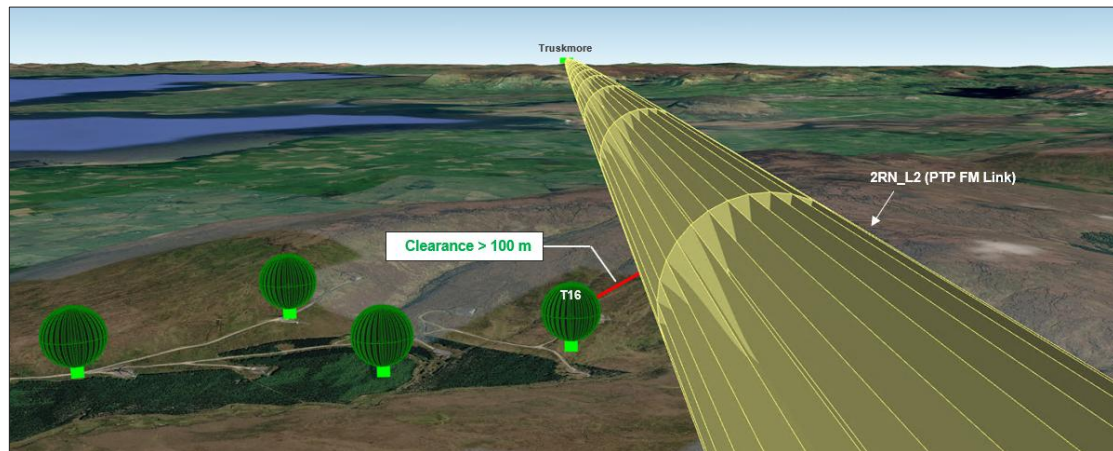


Figure 15. 2RN Link 2 Truskmore to Castlebar (FM) – 3D View.

Table 9 below provides a brief summary of the network analysis for the 2RN network in the vicinity of the proposed wind farm.

Radio Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (0.6F1) Clearance / Interference	Wind Farm Impacts
2RN_L1	Truskmore to Castlebar (DTT)	T16	> 100 m Clearance	No Impacts.
2RN_L2	Truskmore to Castlebar (FM)	T16	> 100 m Clearance	No Impacts.

Table 9. 2RN Network – Analysis Summary

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5.4 Imagine Broadband Network Analysis

The Imagine Broadband 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 10 and a Plan View of the Imagine network is shown in Figure 16.

Link	Link Description
IMG_L1	PTP microwave radio link from Dunowla to Ballina.

Table 10. Imagine Broadband Radio Links requiring Analysis



Figure 16. Imagine Broadband Radio Network – Plan View

Figure 17 below shows a close-up plan view of the Imagine Broadband microwave radio link relative to the proposed wind turbines. The plan view indicates that Turbine T04 could impact the Imagine Broadband microwave radio link between Dunowla and Ballina (IMG_L1).

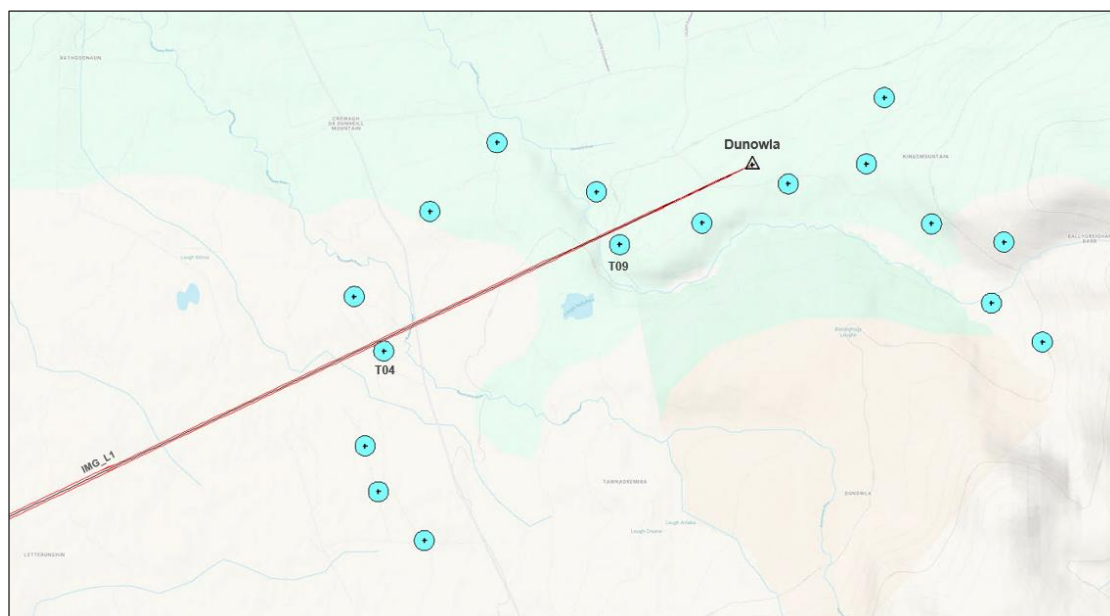


Figure 17. Imagine Broadband Network – Close-up Plan View.

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To further assess the potential impact of the proposed turbines, the radio link has been modelled in 3D and the Clearance Distance between the Fresnel Zone(s) of the link and the blade-tip of the turbines have been calculated.

A 3D view of the microwave radio link between Dunowla and Ballina is shown below in Figure 18. The results of the 3D analysis indicate T04 would partially obstruct the Fresnel Zone of the Imagine Broadband radio link (i.e. the operation of IMG_L1 would be impacted by T04).

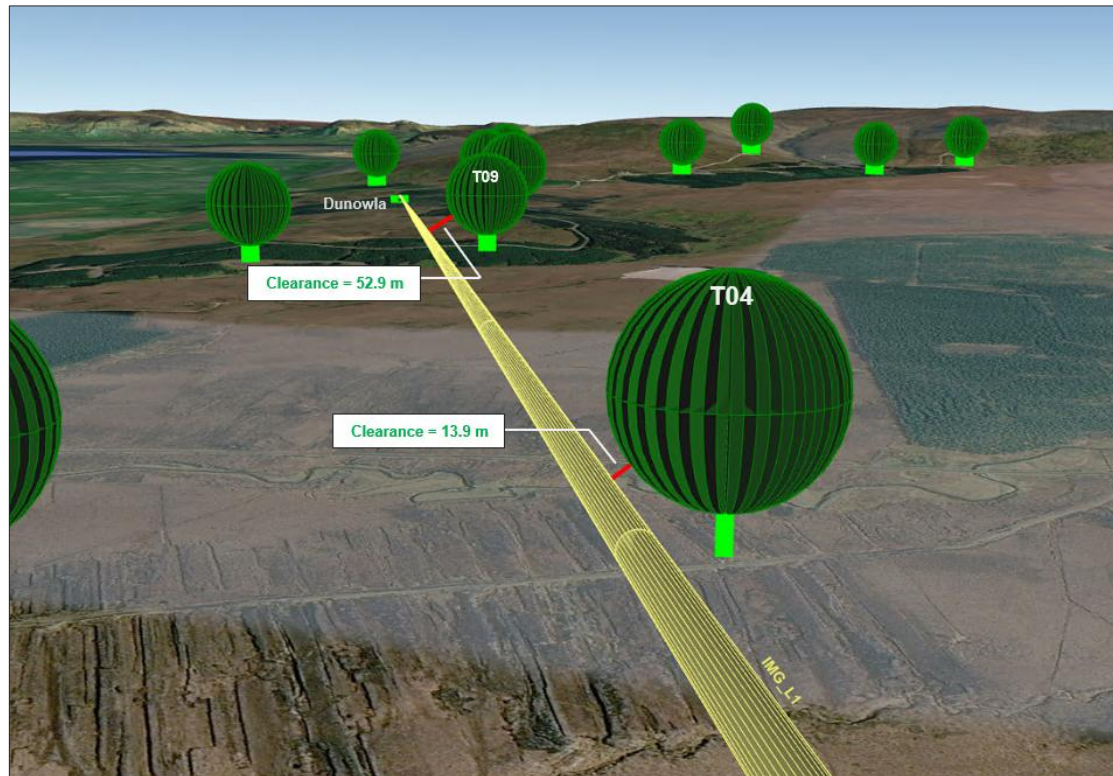


Figure 18. Imagine Broadband Network – 3D View.

Table 11 below provides a brief summary of the network analysis for the 2RN network in the vicinity of the proposed wind farm.

Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (F1) Clearance / Interference	Observations
IMG_L1	Dunowla to Ballina	T04	13.9 m	No Impacts.
		T09	> 50 m Clearance	

Table 11. Imagine Broadband Network – Analysis Summary

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5.5 Three Ireland Network Analysis

The Three Ireland 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 12 and a Plan View of the Three Ireland network is shown in Figure 19.

Link ID	Link Description
3IRL_L1	PTP microwave radio link from Tawnaghmore to Dunowla
3IRL_L2	PTP microwave radio link from Dunowla to Homeland, Skreen

Table 12. Three Ireland Radio Links requiring Analysis

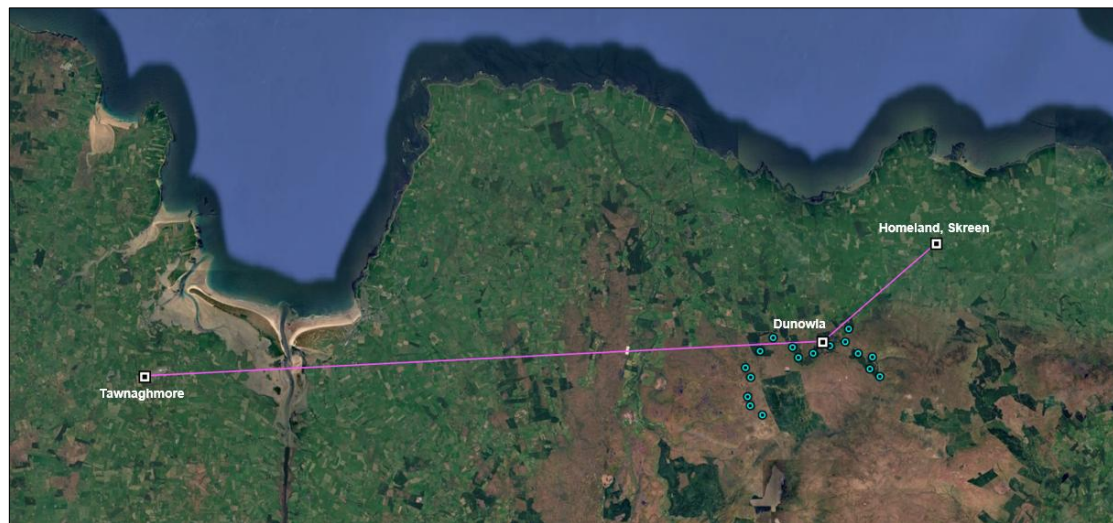


Figure 19. Three Ireland Radio Network – Plan View

Figure 20 below shows a close-up Plan View of the Three Ireland microwave radio links relative to the proposed wind turbines. The plan view indicates that Turbine T08 would be relatively near to the radio link between Tawnaghmore to Dunowla.

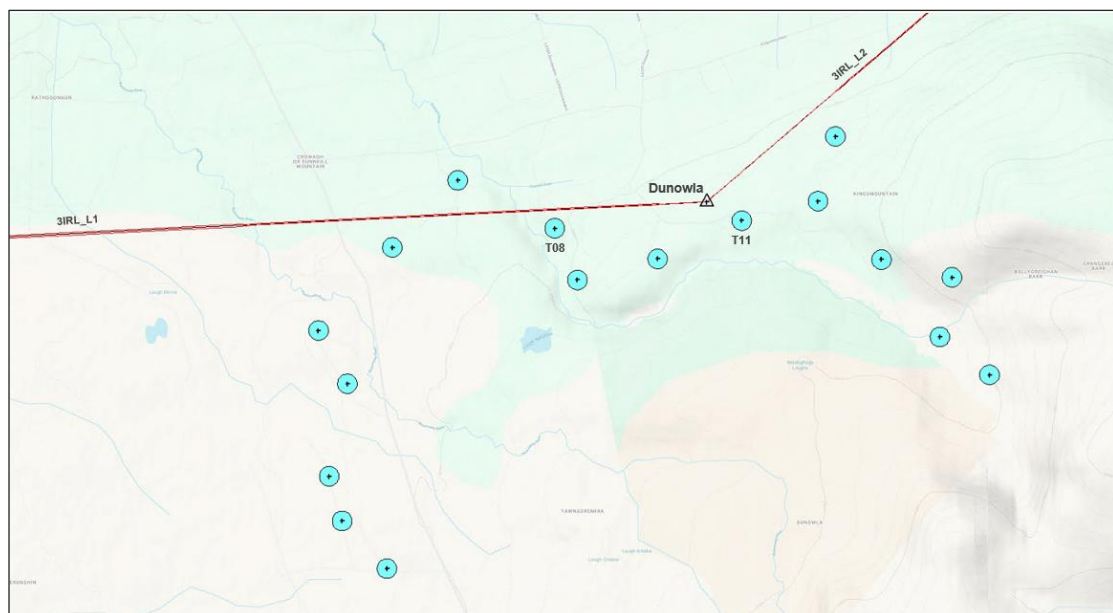


Figure 20. Three Ireland Network – Close-up Plan View.

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To further assess the potential impact of the proposed turbine, the radio link between Tawnaghmore and Dunowla has been modelled in 3D and the Clearance Distance between the Fresnel Zone of the link and the blade-tip of T08 has been calculated.

A 3D view of the microwave radio link (relative to T08) is shown below in Figure 21. The results of the 3D analysis indicate that the turbine would not obstruct the Fresnel Zone of the radio link (i.e. the operation of the radio link would not be impacted).

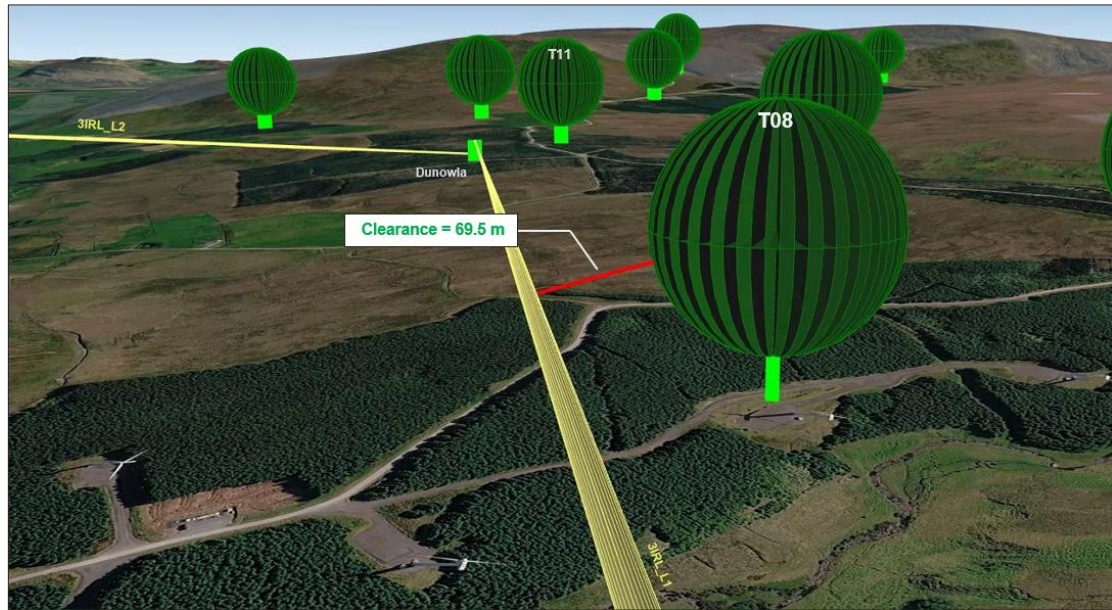


Figure 21. Three Ireland Network – 3D View.

Table 13 below provides a brief summary of the network analysis for the Three Ireland network in the vicinity of the proposed wind farm.

Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (F1) Clearance / Interference	Observations
3IRL_L1	Tawnaghmore to Dunowla	T08	> 50 m Clearance	No impacts.
3IRL_L2	Dunowla to Homeland, Skreen	T11	> 50 m Clearance	No impacts.

Table 13. Three Ireland Network – Analysis Summary

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5.6 Eir Network Analysis

The Eir network in the vicinity of the proposed wind farm consists of three Point-to-Point (PTP) microwave radio links. The radio links are listed below in Table 14 and a Plan View of the Eir network is shown in Figure 22.

Link ID	Link Description
Eir_L1	PTP microwave radio link from Dunowla to Owenykeevan
Eir_L2	PTP microwave radio link from Dunowla to Easkey Garda Stn
Eir_L3	PTP microwave radio link from Dunowla to Truskmore

Table 14. Eir Radio Links requiring Analysis

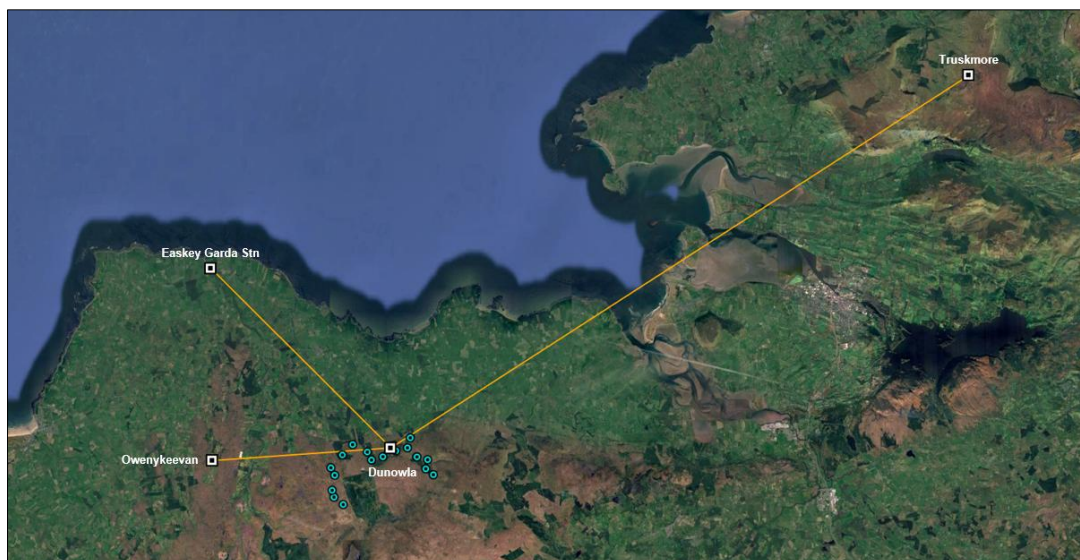


Figure 22. Eir Radio Network – Plan View

Figure 23 below shows a close-up Plan View of the Eir microwave radio links relative to the proposed wind turbines. The plan view indicates that: Turbine T08 would be relatively near to Eir_L1 (Dunowla to Owenykeevan), and Turbine T13 would be relatively near to Eir_L3 (Dunowla to Truskmore).

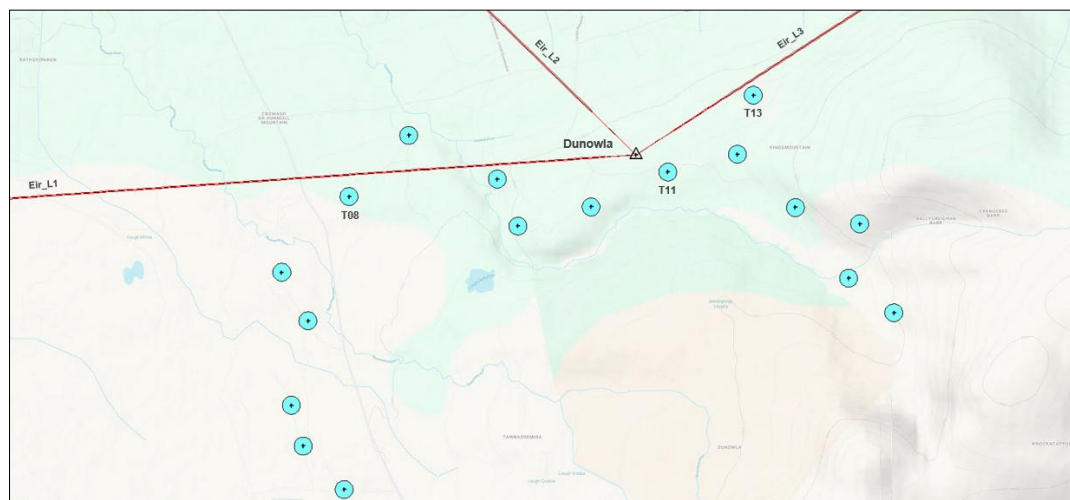


Figure 23. Eir Network – Close-up Plan View.

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To further assess the potential impact of the proposed turbines, the radio links have been modelled in 3D and the Clearance Distances between the Fresnel Zone(s) of the links and the blade-tip of the turbines have been calculated.

A 3D view of the Eir radio link network is shown below in Figure 24. The results of the 3D analysis indicate that the turbines would not obstruct the Fresnel Zone of any of the Eir radio links (i.e. the operation of the radio links would not be impacted).

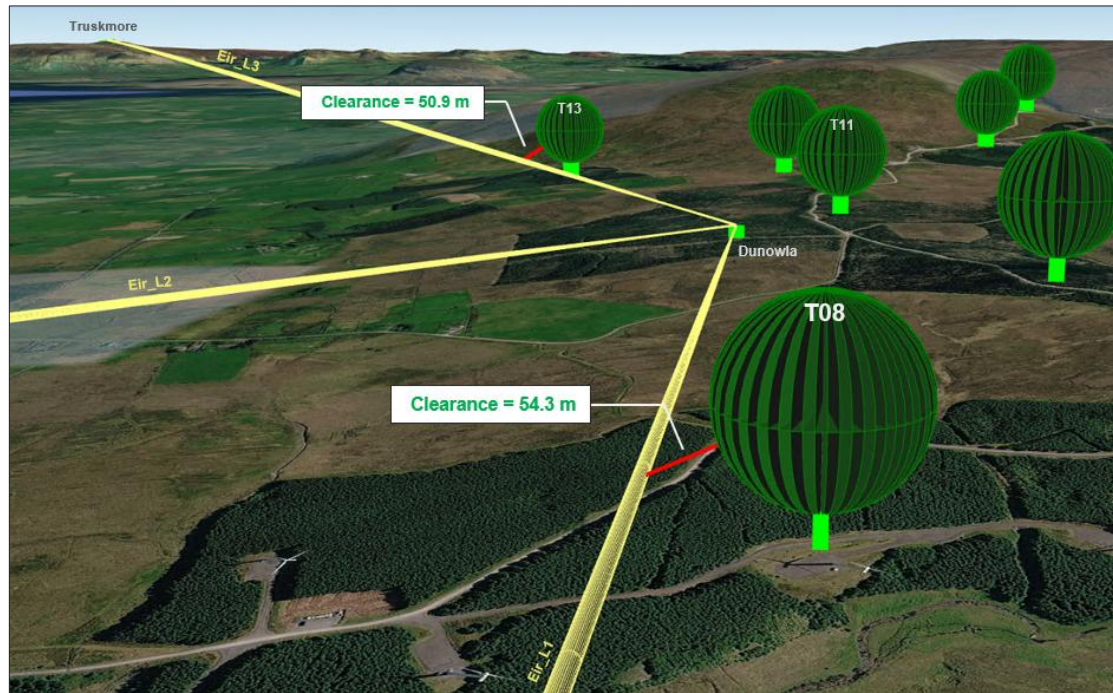


Figure 24. Eir Network – 3D View.

Table 15 below provides a brief summary of the network analysis for the 2RN network in the vicinity of the proposed wind farm.

Link ID	Link Description	Nearest Turbine(s)	Fresnel Zone (F1) Clearance / Interference	Observations
Eir_L1	Dunowla to Owenykeevan	T08	> 50 m	No impacts.
Eir_L2	Dunowla to Easkey Garda Stn.	T11	> 50 m	No impacts.
Eir_L3	Dunowla to Truskmore	T13	> 50 m	No impacts.

Table 15. Eir Network – Analysis Summary

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Section 6 - Mitigation Measures

	Procedure: 001	Rev: 3.0
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6. Introduction

The results of the network analysis (2D and 3D) indicate that the proposed turbines would not obstruct any of the PTP radio links (i.e. none of the radio links would be impacted by the proposed turbine layout).

As none of the PTP radio links would be impacted by the proposed development, no mitigation measures would be required.

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Section 7 - Conclusions

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7. 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 thirteen radio links that cross over/near the wind farm site.
- The results of the network analysis (2D and 3D) indicate that the proposed turbines would not obstruct any of the PTP radio links (i.e. none of the radio links would be impacted by the proposed turbine layout).

Telecom Operator	Radio Link ID	Radio Link Description	Observations	Mitigation Measures
Enet	Enet_L1	Dunowla - St Farnan's GAA	No impacts	N.A.
	Enet_L2	Dunowla - Dromore West NS	No impacts	N.A.
	Enet_L3	Dunowla - Ballina	No impacts	N.A.
	Enet_L4	Ballina - Kings Mt SS	No impacts	N.A.
Vodafone	VF_L1	Ballina - Kings Mt SS	No impacts	N.A.
2RN	2RN_L1	Truskmore – Castlebar (DTT)	No impacts	N.A.
	2RN_L2	Truskmore – Castlebar (FM)	No impacts	N.A.
Imagine Broadband	IMG_L1	Dunowla - Ballina	No impacts	N.A.
Three	3IRL_L1	Tawnaghmore - Dunowla	No impacts	N.A.
	3IRL_L2	Dunowla - Homeland, Skreen	No impacts	N.A.
Eir	Eir_L1	Dunowla - Owenykeevan	No impacts	N.A.
	Eir_L2	Dunowla - Easkey Garda Stn.	No impacts	N.A.
	Eir_L3	Dunowla - Truskmore	No impacts	N.A.

Table 16. Radio links crossing over/near the proposed wind farm site

- Figure 25 below has been provided to illustrate the Telecommunications link that cross over/near the proposed wind farm site.

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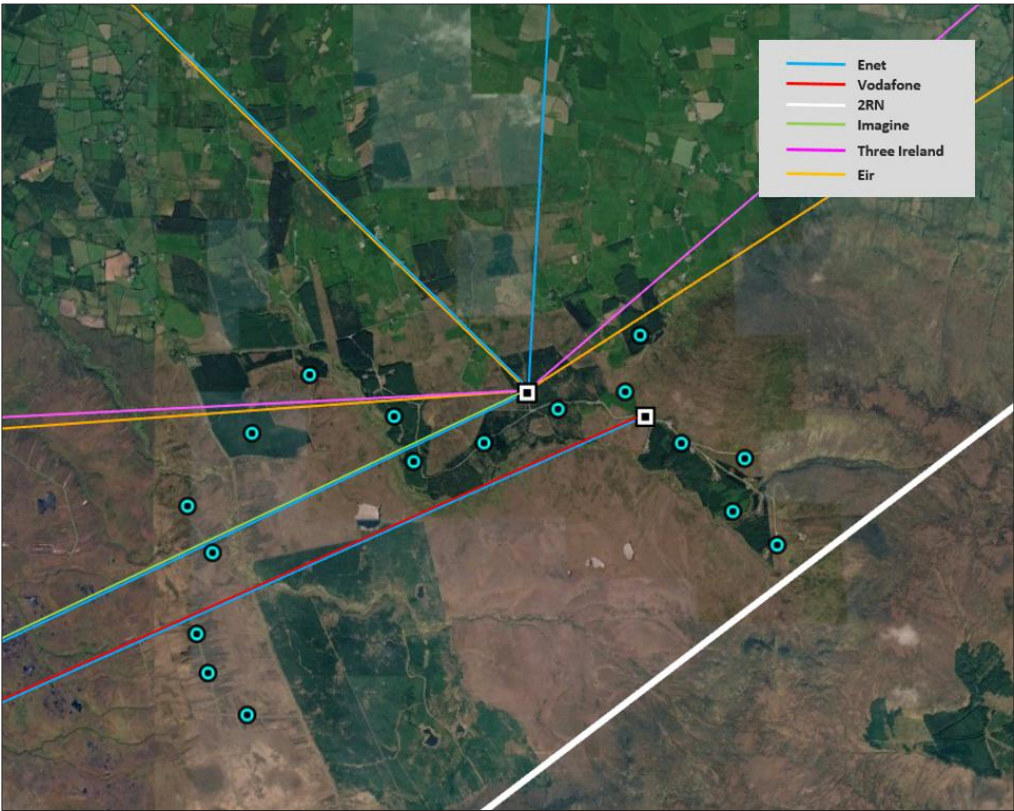


Figure 25. Plan View of radio links crossing over/near the proposed wind farm site.

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APPENDIX A – Wind Farm Turbine Coordinates

 <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Appendix A – Wind Farm Turbine Co-ordinates

The coordinates of the turbines considered in this Telecommunications Impact Study are provided in the Table below.

Turbine ID	Co-ordinates (ITM)	
	X	Y
T01	543507	826746
T02	543440	827861
T03	543602	826404
T04	543655	827452
T05	543941	826036
T06	544012	828489
T07	544519	828995
T08	545257	828620
T09	545425	828224
T10	546041	828377
T11	546688	828662
T12	547273	828804
T13	547412	829297
T14	547754	828353
T15	548292	828210
T16	548570	827462
T17	548194	827756

Table 17. Wind Farm Layout - Turbine Co-ordinates

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APPENDIX B – Field Survey Findings

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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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 26 below.



Figure 26. 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
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Mast-Site A (Dunowla)

Telecommunications Mast-Site A is located in the townland of Dunowla between the existing Dunneill and Kings Mountain wind farms. 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 are listed in Table 18.



Figure 27. Mast A1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast A1	Enet, Imagine Broadband, Three Ireland, Eir

Table 18. Field Survey Summary – Mast-Site A

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site B (Kingsmountain Substation)

Mast-Site B is located at Kings Mountain Substation. A photo of the radio equipment at this location is shown in the figure below. The Telecom Operators who have radio links operating from this location are listed in Table 19.



Figure 28. Mast B1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast B1	Enet and Vodafone

Table 19. Field Survey Summary – Mast-site B

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site C (Truskmore)

Telecommunications Mast-Site C is located on Truskmore Mountain, Co Sligo and is approximately 33 km northeast of the proposed wind farm. A photo of the mast-structure at this location is shown below. The Telecom Operators who have radio links operating from this mast-structure in the direction of the wind farm are listed in Table 20.



Figure 29. Mast C1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast C1	2RN

Table 20. Field Survey Summary – Mast-site C

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site D (Homeland, Skreen)

Telecommunications Mast-Site D is located at the Homeland Store in Skreen, Co Sligo and is approximately 5 km northeast of the proposed wind farm. The Telecom Operators who have radio links operating from this mast-site in the direction of the wind farm are listed in Table 21.

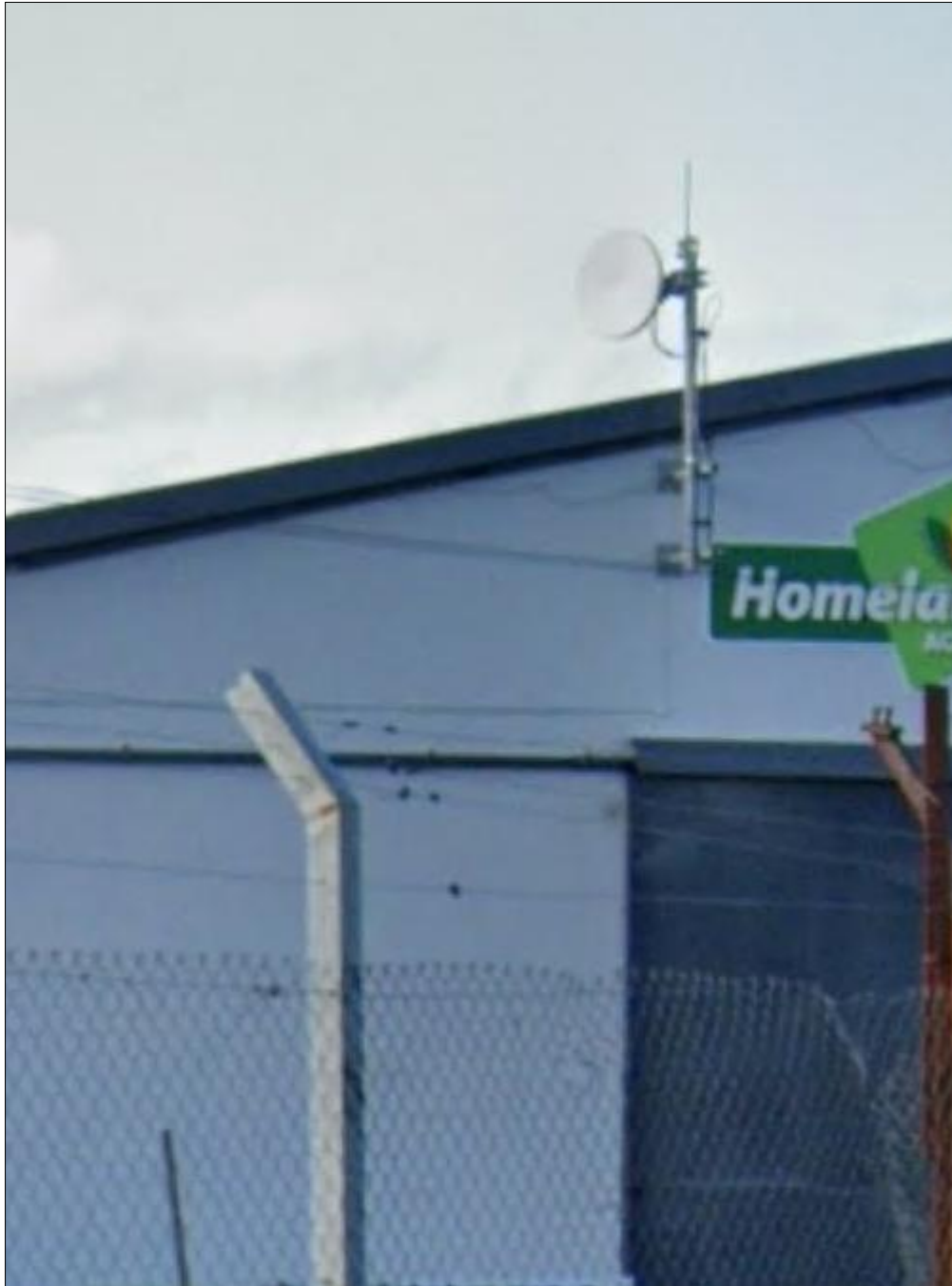


Figure 30. Mast D1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast D1	Three Ireland

Table 21. Field Survey Summary – Mast-site D

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site E (St Farnan's GAA, Cartron)

Telecommunications Mast-Site E is located at St Farnan's GAA, Cartron, Co Sligo and is approximately 4 km north 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 22.



Figure 31. Mast E1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast E1	Enet

Table 22. Field Survey Summary – Mast-site E

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site F (Easkey Garda Station)

Telecommunications Mast-Site F is located at Easkey Garda Station, Co Sligo and is approximately 11 km northwest 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 23.



Figure 32. Mast F1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast F1	Eir

Table 23. Field Survey Summary – Mast-site F

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site G (Dromore West N.S.)

Telecommunications Mast-Site G is located at Dromore West National School, Co Sligo and is approximately 4 km northwest 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 24.



Figure 33. Mast G1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast G1	Enet

Table 24. Field Survey Summary – Mast-site G

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site H (Owenykeevan)

Mast-Site H is located in the townland of Owenykeevan, Co Sligo. A photo of the mast at this location is shown in the figure below. The Telecom Operators who have radio links operating from this location in the direction of the wind farm are listed in Table 25.



Figure 34. Mast H1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast H1	Eir

Table 25. Field Survey Summary – Mast-site H

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site I (Tawnamore)

Mast-Site I is located in the townland of Tawnamore, Co Mayo. A photo of the mast at this location is shown in the figure below. The Telecom Operators who have radio links operating from this location in the direction of the wind farm are listed in Table 26.



Figure 35. Mast I1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast I1	Three Ireland

Table 26. Field Survey Summary – Mast-site I

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site J (Ballina)

Mast-Site J is located at Primrose Hill in Ballina, Co Mayo. A photo of the mast at this location is shown in the figure below. The Telecom Operators who have radio links operating from this location in the direction of the wind farm are listed in Table 27.



Figure 36. Mast J1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast J1	Enet, Imagine, Vodafone

Table 27. Field Survey Summary – Mast-site J

AiBridges <i>Total Broadband Solutions</i>	Procedure: 001	Rev: 3.0
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Mast-Site K (Castlebar)

Mast-Site K is located on Croaghmoyle Mountain, Castlebar, Co Mayo. A photo of the mast at this location is shown in the figure below. The Telecom Operators who have radio links operating from this location in the direction of the wind farm are listed in Table 28.



Figure 37. Mast K1

Mast ID	Telecom operators with radio links in direction of proposed wind farm
Mast K1	2RN

Table 28. Field Survey Summary – Mast-site K