

## 16.0 MATERIALS ASSETS: AVIATION AND TELECOMMUNICATIONS

## 16.1 INTRODUCTION

The term 'Material Assets' can relate to both finite and renewable resources, which can be of a natural or anthropogenic origin. Some of these resources, such as minerals, stone, soil, water, air, traffic & transportation, land use, human health and amenity resources are discussed in other chapters of the EIAR (Chapter 6: Population & Human Health; Chapter 9: Soils & Geology; Chapter 10 Hydrogeology: Chapter 11Hydrology; Chapter 12: Air Quality & Climate; and Chapter 17: Traffic & Transportation). Electromagnetism is discussed from a human health perspective in Chapter 6 (Population & Human Health). This chapter of the EIAR deals primarily with Aviation and Telecommunications in addition to other material assets.

# 16.1.1 Proposed Development

The proposed development will comprise an 18 no. turbine wind farm with a 200m tip height and all associated infrastructure, as described in Chapter 3 of this EIAR (Description of the Proposed Development).

## 16.1.2 Statement of Authority

This assessment has been carried out by TOBIN Consulting Engineers.

This Chapter has been written by Mr. Michael Nolan and reviewed by Mr. Robert Hunt Senior Project Manager and Dr John Staunton, Senior Project Manager and Environmental Scientist in TOBIN. Michael has 20 years of professional experience and has worked on a number of wind farms with various roles (which included carrying out scoping exercises with telecoms providers and other stakeholders and providing content for reports). Robert holds a bachelor's degree in civil engineering from the University of Dundee, Scotland and a master's degree in Environmental Engineering from Queen's University, Belfast. Robert is a Chartered Engineer and has more than eleven years' experience in environmental consulting and assessment including the preparation of impact assessments on material assets for renewable energy projects. He also has project management experience in the collation of environmental impact assessment including stakeholder consultation and project scoping. John has more than fourteen years' postgraduate experience in both environmental research and consultancy. John holds a BSc and PhD in Environmental Science and has considerable experience in project managing and carrying out wind energy development assessments including the preparation of



material asset impact assessment EIAR sections. He has co-ordinated scoping exercises with aviation authorities and telecommunication providers in numerous wind farm developments.

## 16.2 METHODOLOGY

This EIAR chapter and the assessment contained within has been carried out in accordance with the appropriate guidance documentation as outlined in Chapter 1 (Introduction), including:

- the Guidelines on the information to be contained in Environmental Impact Assessment Reports (2022)
- Wind Energy Development Guidelines (2006)

## 16.2.1 Aviation

The construction of large wind turbines near airports may have the potential to pose a physical hazard for frequently used flight paths, as well as pose an issue for nearby airport operations in relation to Obstacle Limitation Surfaces (OLS), Instrument Flight Procedures (IFPs) and Instrument Landing System (ILS) Calibration. The distance at which this may become an issue would depend on the size of the airport/airstrip (where smaller airstrips are less likely to be impacted at long distances compared to large airports), terrain elevations and the flight paths. For the purposes of this assessment study area, a 30km buffer of the site was used to identify the small airstrips/airfields. Larger airports within the wider region were considered. Consultation is seen as the primary method of assessing the potential for impacts on aviation. In order to determine any potential impacts that the proposed development might have on aviation, the nearest airfields/airports were determined using an airfield catalogue<sup>1</sup>, and a consultation exercise was carried out with key stakeholders on the 3<sup>rd</sup> February 2021. These included:

- Department of Defence.
- Ireland West Airport Knock Airport. (closest significant airport to the project)
- Irish Aviation Authority;
- Irish Parachute Club

Responses from these are discussed in Section 16.3.1.

The following Legislation and Guidance is relevant for the proposed project in relation to aviation:

- Irish Aviation Authority's, Obstacles to Aircraft in Flight, Order SI 215/2005;
- 'Best Practice Guidelines for the Irish Wind Energy Industry' by the Irish wind Energy Association (2012);

<sup>&</sup>lt;sup>1</sup> http://woodair.net/UK\_Airfield\_Catalogue/Airfields\_Ireland.htm



- Sustainable Energy Authority of Ireland's, 'Investigation of the Impact of Wind Turbines on Radar' (2004);
- (IAA, 2014a) Irish Aviation Authority: Aerodrome Licensing Manual;
- (IAA, 2014b) Irish Aviation Authority; Policy on Land Use and Planning and Offshore Development (Draft for public consultation);
- (ICAO, 2013) International Civil Aviation Organisation, Convention on International Civil Aviation; Annex 14, Aerodromes;
- (UK CAA, 2013) UK Civil Aviation Authority CAP 764: Policy and Guidelines on Wind Turbines;
- (IAA, 2006) Irish Aviation Authority Statutory Instruments; S.I 215 of 2005, Obstacles to Aircraft in Flight Order;
- (IAA, 2004) Irish Aviation Authority Statutory Instruments; S.I 72 of 2004, Rules of the Air Oder 2004; and
- (IAA, 1999) Irish Aviation Authority Statutory Instruments; S.I 423 of 1999, En-route Obstacles to Air Navigation.
- International Civil Aviation Organisation (ICAO) guidance

# 16.2.2 Telecommunications

In order to assess if there would be any potential impacts on the existing telecommunications networks, and in line with Section 5.10 of the Wind Energy Guidelines (2006), a consultation exercise was carried out where a list of providers and stakeholders were consulted with over a number of weeks about the proposed development, and were asked to inform the project team of any communication links or infrastructure that they have in the area, or if they had any other comments/concerns relating to the proposed development. The objective of this exercise was to ensure that proposed turbines would not be in close proximity to existing masts and telecommunication links. In the event that this was the case, any turbines that could potentially impact on telecommunication operations would have been relocated. If relocation was not possible, then further consultation would have been carried out to consider the potential impact and agree an appropriate mitigation strategy. This consultation exercise was carried out with the following extensive list of telecommunications stakeholders:

- An Garda Siochana
- Broadcasting Authority of Ireland
- Community Radio Castlebar
- ComReg
- EIR
- Enet Telecommunications (formerly Airspeed)
- ESB Telecom Services
- Europasat
- Fast Com
- Host Ireland
- Imagine Networks Services
- Magnet Networks
- Midwest Radio
- Netshare Ireland / Vodafone
- OpenEir



- Pure Telecom
- RTE NL / 2RN
- TG4
- Three Ireland Hutchison
- Towercom Ltd.
- Viatel
- Virgin Media

Once any feedback was received from the above, it was compiled into a datasheet. Further information was supplied where requested. Any transmission links or sites were noted and constrained out of the site layout design with appropriate buffers to minimise potential impacts from the proposed development. Further information on responses received from these telecommunications service providers can be found in Table 16-1 and in Appendix 1.2 of the EIAR.

#### 16.2.3 Other Material Assets

In order to assess the potential for impacts to electricity and water infrastructure and waste services, a scoping exercise was carried out with a number of key consultees, including the Commission for Regulation of Utilities, ESB, Irish Water and Mayo County Council to obtain any information they might have relating to the site of the proposed project. Irish Water provided a response that was not project specific, outlining key impacts to their networks that should be considered in the EIAR. No other Material Assets responses were received. Maps of the gas distribution network, which are available online, were also consulted during the design of the proposed project.

#### 16.3 EXISTING ENVIRONMENT

#### 16.3.1 Aviation

The proposed wind farm is located in an area with class G airspace (uncontrolled) with a number of wind farms already operating in the area around the site of the proposed wind farm. The nearest significant airport to the proposed development is Ireland West Airport Knock, located approximately 48 kilometres southeast of the proposed wind farm site in County Mayo. It is the largest regional airport in Ireland, being serviced by jet and propellor aircraft from companies including Aer Lingus, Ryanair and Aer Arann. Crossmolina Airfield, which is an airfield with a grass runway is located approximately 7 kilometres to the east of the proposed development. Ballina Airfield, Lough Conn Air Strip and Bunnyconnelan Airstrip are all located over 20 kilometres to the east of the proposed wind farm site, while the Bellmullet Aerodrome is located



over 30 kilometres to the west. Sligo airport is over 60 kilometres northeast of the proposed wind farm site.

On responding to the EIAR scoping letter on the 4<sup>th</sup> February 2021, the Irish Aviation Authority (IAA) stated that they (or the Safety Regulation Division within) do not get involved in the planning process. They provided information with regard to notification requirements for manmade tall objects, and what information they will need to know in advance in the event that the project will be constructed. The Department of Defence responded on the 8<sup>th</sup> February 2021 with confirmation of receipt but did not provide any further response. Ireland West Airport Knock only responded on 3<sup>rd</sup> February 2021 with departmental contact information and gave no further response. Scoping responses can be seen in Appendix 1.2 of this EIAR.

#### 16.3.2 Telecommunications

As described in Section 16.2 above, a comprehensive list of telecommunication operators was consulted in February 2021 to assess for any potential impacts to existing telecommunication links in the area. Table 16-1 provides information on all the responses received during this exercise, and any actions taken by the project design team resulting from these responses. Telecommunication scoping responses can be seen in Appendix 1.2 of this EIAR.

Table 16.1:Telecommunication Providers Consultation information

Telecommunication Provider/Stakeholder	Consultee Response	Project Team Response to Comments Received
An Garda Siochana	No Response.	n/a
Broadcasting Authority of Ireland	Responded on the 4 <sup>th</sup> Feb. 2021 stating that they do not carry out in-depth analysis but they are not aware of any issues from existing windfarms into existing FM networks. Also, the proposed windfarm is not located close to any existing or planned FM transmission sites.	n/a
Community Radio Castlebar	No Response.	n/a
ComReg	No Response.	n/a
EIR	Responded on 17 <sup>th</sup> July 2020 saying: we have one transmission link within the proposed area that could be at risk, the end points of the transmission link are below, for windfarm developments we would keep a buffer of 100meters radius away from this transmission path.	Link and the recommended 100m buffer incorporated into Telecoms constraints.



Telecommunication Provider/Stakeholder	Consultee Response	Project Team Response to Comments Received
Provider/Stakerioider	Link 1 Endmoint 1 E49	Comments Received
	Link 1 – End point 1 - 54° 7'19.28"N 9°34'29.44"W, End	
	point 2 - 54°12'16.33"N	
	9°26'7.32"W.	
Enet	Responded on 6 <sup>th</sup> July 2020 saying	Links and appropriate buffers
Telecommunications	that they have 3 no. new links	incorporated into Telecoms
(formerly Airspeed)	planned in the area, request for	constraints.
	links to be mapped as constraint.	
ESB Telecom	No Response.	n/a
Services		
Europasat	No Response.	n/a
Fast Com	No Response.	n/a
Host Ireland	No Response.	n/a
Imagine Networks	Acknowledgement received on 8th	n/a
Services	February 2021 with no further	
	response	
Magnet Networks	No Response.	n/a
Midwest Radio	No Response.	n/a
Netshare Ireland /	No Response.	n/a
Vodafone		
OpenEir	Responded on 30 <sup>th</sup> June 2020	Links incorporated into
	saying that they have 2 no.	Telecoms constraints.
	microwave links passing through	
	the site.	
Pure Telecom	No Response.	n/a
RTE NL / 2RN	They responded on 13 <sup>th</sup> July 2020	Developer will engage as
	saying that the proposed windfarm	required with 2RN on a
	at Oweninny, Co. Mayo will not	protocol agreement to ensure
	cause any interference to 2RN's	that all customers are
	fixed links. There is however a risk that the windfarm will cause	protected.
	interference to the DTT services	
	for viewers to the north of the site	
	receiving from Castlebar and to the	
	west of the site for those receiving	
	from Truskmore. We would	
	therefore recommend that a	
	protocol be signed between the	
	developer and 2rn should the site	
	go ahead. I have attached a copy of	
	the protocol for your reference. It	
	details the scope and the process	
	to remedy any interference problems should they arise. As we	
	•	
	are talking about the impact to a	
	are talking about the impact to a broadcast and not a point to point	
	are talking about the impact to a	



Telecommunication Provider/Stakeholder	Consultee Response	Project Team Response to Comments Received
	radio frequency path between the transmission site and the viewers.	
TG4	No Response.	n/a
Three Ireland Hutchison	No Response.	n/a
Towercom Ltd.	Response on 26 <sup>th</sup> February 2021 with information on links they have in the area. TOBIN requested additional information on these which was provided on 2 <sup>nd</sup> March 2021. These links were incorporated into the design of the proposed development.	n/a
Viatel	No Response.	n/a
Virgin Media	Response received on 3 <sup>rd</sup> Feb 2021 stating that Virgin Media have no microwave links that would be affected by the proposed development	n/a

Following receipt of the above telecom scoping responses, the turbine layout of the proposed development was reviewed and revised, as necessary, to minimise any potential impacts on telecommunications networks. This was carried out by inputting all the constraint data that was received into GIS mapping software and ensuring that the proposed turbine locations would not be located within the appropriate buffers. These constraints, along with others gathered as part of the EIAR (such as ecological, hydrological and proximity to sensitive receptors, etc.) were used when refining the site layout. Previous design iterations are discussed in Chapter 4 (Reasonable Alternatives).

#### 16.3.3 Other Material Assets

In order to assess the potential for impacts to electricity and water infrastructure and waste services, a scoping exercise was carried out to a number of key consultees, including ESB, Irish Water and Local Authorities. No response was received from ESB. Mayo County Council and Irish Water responded but did not specify any concerns relating to existing electricity supply networks, water supply networks or waste services.

While there are some 110kV electricity lines within the EIAR study area (Figure 1-1 of this EIAR), it is also possible that there might be some underground electricity cables discovered during the proposed works. There are existing underground cables in place adjacent to some parts of the proposed grid connection route. Damaging an underground electricity cable may



have the potential to cause serious harm or death. All proposed works being carried out on overhead or underground electricity cables will be done in consultation with ESBN/EirGrid, as required. It is assumed as a worst-case scenario that there are likely to be underground water pipes occasionally occurring underground.

A desk study of available information from the EPA did not identify any waste facilities, illegal waste activities, chemical monitoring points or industrial EPA licensed facilities within a 2km radius of the wind farm site. The nearest waste facility to the proposed wind farm site is the McGrath Industrial Waste Facility (Reg. no. W0143-01) near Castlebar, over 30 kilometres southeast of the proposed wind farm.. The former Bellacorrick Power Limited site, which used to have an IPC Licence (P0633-01 – now ceased) is located in close proximity to west of the proposed wind farm site.

A gas pipeline passes near the proposed wind farm site and the grid connection cable will intersect the line of this. An existing similar 110kV underground cable crosses this gas pipeline in the same location. The same crossing methodology will be utilised for this location.

# 16.4 POTENTIAL EFFECTS, MITIGATION AND RESIDUAL EFFECTS OF THE PROPOSED PROJECT

# 16.4.1 Do-Nothing Scenario

Should the proposed development not be constructed, there will be no potential for impact on aviation, telecommunications or other Material Assets.

#### 16.4.2 Construction Phase

#### 16.4.2.1 Aviation

## **Pre-mitigation impact**

Taking into account the works proposed as part of the proposed development, there are no significant impacts likely to arise during the majority of the construction phase in relation to aviation. There will be cranes required to remove the old existing turbines first, but these existing turbines are already in locations where they do not cause any issues for aviation. For construction, the potential for impacts will begin at the new turbine locations with the erection of turbines and the use of tall cranes. The short construction period (until the wind farm is fully commissioned and the project enters the operational phase) will have the same potential impacts as the operational phase, as described in Section 16.4.3. It is important to note here that



there are a number of existing wind farms in proximity to the site, and these are successfully operating without significant effects on aviation.

## **Mitigation**

At the outset while existing turbines are being removed and towards the end of the construction phase, prior to the erection of the turbines and met mast, the following mitigation measures will be implemented.

The proposed development will require certain lighting requirements for tall structures. The details for this lighting will be agreed with the Irish Aviation Authority and will be applied to the turbines and met mast. This will increase the visibility of the proposed development to any local aircraft. The final locations and dimensions of each turbine will be mapped and provided to the local authority and stakeholders (such as the Irish Aviation Authority) prior to erection to ensure that maps and databases are up to date for flight navigation. Notification will also be provided to them in advance of removal of old existing turbines.

## Residual Impact

It is anticipated that there will be no impact to aviation during the construction phase following the implementation of the mitigation measures described above.

#### 16.4.2.2 Telecommunications

#### **Pre-mitigation impact**

Should there be any underground telecommunication services located within the proposed works areas, including along the route of the proposed grid connection, or at the locations of the proposed temporary road works to accommodate oversize load deliveries, there may be a potential to damage these, and therefore interrupt the local service provision. This would have a potential temporary slight negative impact, though it is unlikely to occur, particularly given the location of the proposed infrastructure, largely removed from the public road corridor.

The wind farm layout has been designed to avoid any impacts to the telecommunications links in the area, and there will be no potential for impacts during the construction phase.

#### **Mitigation**

A confirmatory survey of all existing underground telecommunication services will be carried out prior to construction to verify the assumptions in this report and identify the precise



locations of any services. The developer will liaise with the service provider where such services are identified. Digging around existing services, if present, will be carried out by hand to minimise the potential for accidental damage. There are no telecommunication impacts anticipated for the construction phase of the proposed development, so there are no other mitigation measures required.

#### Residual Impact

It is anticipated that there will be no impact on telecommunications during the construction phase.

#### 16.4.2.3 Other Material Assets

## **Pre-mitigation impact**

There is a large gas pipeline intersecting with the proposed grid connection route, and this will be crossed by the proposed grid connection cable using a flatbed formation, similar to the existing adjacent 110kV underground cable crossing for an existing wind farm. The existing 110kV underground cable has also been considered here and will be avoided with appropriate buffers kept to this. It is not anticipated that there would be any other significant underground utilities encountered during the construction of the proposed project given the isolated nature of the proposed project, and the fact that it is largely located off the public road corridors. In the unlikely event that any unknown services are discovered, there is the potential to impact on local network supplies, causing a potential brief slight negative effect.

The construction phase will have the potential to produce municipal waste (site office, canteen), wastewater (site welfare facility) and construction waste (wood, packaging, metal, etc.) which will need to be processed at local waste processing facilities. The quantities of these wastes are not anticipated to be large, and so there would be a potential short-term imperceptible negative impact on local waste services.

#### **Mitigation**

As with any excavations, particularly near the public road network (where the grid connection will cross beneath a local road using a directional drill trenchless method, and open trenches will be used either side of the road corridor), there is a potential to disrupt local underground services. A confirmatory survey of all existing services will be carried out prior to construction to verify the assumptions in this report and identify the precise locations of any services. The developer will liaise with the service provider where such services are identified. Digging around



existing services, if present, will be carried out by hand to minimise the potential for accidental damage.

Segregation of waste will be carried on site to maximise the potential for waste recycling and minimise any potential for impacts on waste services. A licensed waste collector will be used to remove any waste that does occur on site.

There are no other impacts likely to arise during the construction phase, and therefore no other mitigation measures are required.

#### Residual Impact

Should there be any underground services located along the route of the proposed grid connection, or at the locations of the proposed temporary road works to accommodate oversize load deliveries, the above-mentioned mitigation measures (relating to avoidance of or careful excavations near underground services) will be used to reduce any potential for impacts to being unlikely brief slight negative. There will be an imperceptible short-term negative impact on waste services.

## 16.4.3 Operational Phase

#### 16.4.3.1 Aviation

## **Pre-mitigation impact**

The consultation exercise did not raise any specific operational phase concerns for the proposed development in relation to aviation. There would be a potential for the wind farm to form a physical obstacle for air traffic in the local area. The local air traffic would be very limited and infrequent, with no significant airports near the proposed wind farm site, and the nearest small air strip (grass runway) being approximately 7 kilometres away. It is worth noting that there are a significant number of r existing wind turbines in operation adjacent to the proposed development. Constructed and consented wind farms in the area are subject to aviation warning light planning conditions to ensure safeguarding of aviation activities. It is noteworthy that wind turbines have been present in this landscape since 1992 and are therefore an established aviation obstacle for a significant period.

## **Mitigation**

The proposed development will require certain lighting requirements for tall structures as prescribed by the relevant aviation authorities. The details for this lighting will be agreed with



the Irish Aviation Authority and will be applied to the appropriate turbines and met mast. This will ensure the required visibility of the proposed development to any local aircraft. The final locations and dimensions of each turbine will be mapped and provided to the local authority and stakeholders (such as the Irish Aviation Authority) prior to erection to ensure that maps and databases are up-to-date for flight navigation.

## **Residual Impact**

The implementation of the above mitigation measures will mean that the proposed development will have no residual impact.

#### 16.4.3.2 Telecommunications

# **Pre-mitigation impact**

In relation to telecommunications, turbines can interfere with microwave communications link systems, as they can cause electro-magnetic interference and/or reflect and physically block microwave link signals. The most effective way to research the presence of telecommunication links in the area is through consultation with the providers as described above. Based on this consultation exercise, and the fact that the proposed layout has been designed to avoid any impacts to the links which were determined to be in the area, it is therefore not anticipated that the proposed development will have any impact on telecommunication links in the area.

In addition to major telecommunication links, wind turbines have the potential to impact on delivery of telecommunication signals to the end users, for example by preventing the radio or television signal going to a house from a transmitter through electro-magnetic interference or physically blocking the signal. This would be a potential slight long-term negative impact in the absence of any mitigation.

#### **Mitigation**

The proposed development is not anticipated to have any impact on any telecommunication links in the region due to the distance between the existing links and the proposed turbine locations. The developer will sign an agreement with 2RN prior to construction to commit to restoring service to any end users that may have their service disrupted as a result of the proposed development. If required the developer could utilise general mitigation measures such as upgraded receiver antennae, signal relay antennae and/or signal amplifiers where appropriate in conjunction with the service providers to address any unforeseen issues that



might arise. This is standard industry practice and will eliminate any potential impacts in this regard.

## Residual Impact

It is anticipated that there will be no impact to telecommunications during the operational phase due to the distance between the proposed turbine locations and the existing links in the area, and the requirement to not cause any impact to end users of telecommunication services by way of restoring the service.

## 16.4.3.3 Other Material Assets

## **Pre-mitigation impact**

There are no significant excavations or works proposed during the operational phase, therefore there are no impacts anticipated on the local underground utility networks including water and electricity.

The operational phase is anticipated to have an extremely low rate of production of municipal waste (from substation maintenance staff welfare facilities/office) and wastewater (site welfare facility) which will need to be processed at local waste processing facilities. The quantities of these wastes are anticipated to be significantly smaller than the construction phase. There would be a potential long-term imperceptible neutral impact on local waste services.

#### **Mitigation**

Segregation of waste will be carried on site to maximise the potential for waste recycling and minimise any potential for impacts on waste services. A licensed waste collector will be used to remove any waste that does occur on site, including periodical emptying of the site wastewater tanks. A low-flush cistern will be fitted to reduce the volume of wastewater produced.

#### **Residual Impact**

There will be a potential long-term imperceptible neutral impact on local waste services.

## 16.4.4 Decommissioning Phase

The decommissioning of the existing old wind turbines that will occur at the start of the construction phase is dealt with under the construction phase assessment. This



decommissioning assessment relates to the future decommissioning of the proposed wind farm infrastructure.

There are no impacts likely to arise during the decommissioning phase of the proposed development in relation to aviation, telecommunications or other Utilities (Water and electricity supply networks). The tall structures will be removed, and work involved in this phase will not involve significant excavations.

The decommissioning phase will have the potential to produce municipal waste (site office, canteen), wastewater (site welfare facility) and demolition waste (wood, packaging, metal, etc.) which will need to be processed at local waste processing facilities. The quantities of these wastes are anticipated to be larger than other phases (considering the removal of turbines, met mast and other structures), however these are largely composed of metal and other recyclable materials which would be brought to specialised facilities for processing/recycling such items. Turbine blades (fibreglass based) which currently have limited scope for recycling would be removed and processed by specialised companies. Any other wastes (such as oils) would be collected by an appropriately licensed waste collector. There would be a potential short-term moderate negative impact on local waste services.

## **Mitigation**

Segregation of waste will be carried on site to maximise the potential for waste recycling and minimise any potential for impacts on waste services. Appropriately licensed waste collectors will be used to remove any municipal waste, wastewater or general demolition waste that does occur on site. The majority of wastes from decommissioned infrastructure will be recyclable, and the large items (turbines, met mast) will be collected and processed by appropriately licensed specialist companies with the capability to process these items correctly.

## Residual Impact

There will be a potential short-term slight negative impact on local waste services.



# 16.4.5 Cumulative Impacts

A cumulative assessment was carried out for the proposed development, to include the consideration of projects discussed in Section 5.6 of this EIAR. This included other wind farms in the immediate vicinity such as Oweninny Wind Farm Phase 1 & 2, Sheskin windfarm, Sheskin South windfarm. Other developments such as Mayo Hydrogen project and Constant Energy OCGT as well as smaller scale development such as one-off dwellings and agricultural developments were also considered.

Telecommunication links, overhead services (telecommunication and electricity lines), underground services (telecommunications, water and electricity) and aviation constraints are typically based on fixed infrastructure or well-defined areas (i.e. these do not move) and any individual project either has a potential impact which it is required to mitigate, or it does not. As described above, a comprehensive list of consultees was contacted to ascertain the potential impact that the proposed project could have. The responses from these consultees were used to ensure that the proposed project will not have any significant impact on these services. In the unlikely event that any unforeseen impact does occur, Bord na Mona is committed to mitigate that impact (i.e. restoring telecommunication /television /water/electricity services). In the same manner, it is the responsibility of each developer for all projects considered in Section 5.6 of this EIAR to ensure that their project does not impact these services. Therefore, there were no potential cumulative impacts identified.

Other projects considered (from Section 5.6 of this EIAR) have the potential to create varying volumes of waste from a number of waste categories, depending on the project. Waste volumes from the proposed development are anticipated to be generally low, with the exception of the decommissioning phase (primarily in relation to turbines and met mast). The majority of wastes from decommissioned infrastructure will be recyclable, and the large items (turbines, met mast) will be collected and processed by appropriately licensed specialist companies. Overall, there will be no significant cumulative impact on waste services.

## 16.5 SUMMARY

Following consultation with aviation, telecommunication and other material assets (Water and electricity supply, waste services, etc.) stakeholders, a number of potential areas of impacts were identified. With the application of the mitigation outlined in this chapter, the proposed development will not cause any significant effects in relation to material assets at any stage of the proposed development (i.e. construction, operational and decommissioning phases).



# **References:**

Department of the Environment, Community and Local Government (2013). Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment. DoEHLG, Dublin.

Department of the Environment, Heritage and Local Government (2006). Wind Energy Development Guidelines for Planning Authorities. DoEHLG, Dublin.

Department of Housing, Planning and Local Government (December 2019) Draft Revised Wind Energy Development Guidelines. DHPLG, Dublin.

Croagh Wind Farm Environmental Impact Assessment Report EIAR – 2020.07.06 – 180511- F Department of Housing, Planning and Local Government (August 2018) Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment. DHPLG, Dublin.

Department of Housing, Planning and Local Government (June 2017) Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach. DHPLG, Dublin.

Irish Wind Energy Association (2012). Best Practice Guidelines for the Irish Wind Energy Industry