



codling
wind park



Environmental Impact Assessment Report

Volume 4

Appendix 18.2 Representative
Scenario and Limits of
Deviation Assessment



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APPENDIX 18.2 REPRESENTATIVE SCENARIO AND LIMITS OF DEVIATION ASSESSMENT

1 Introduction

1. Complex, large-scale infrastructure projects with a terrestrial and marine interface such as the CWP Project, are consented and constructed over extended timeframes. The ability to adapt to changing supply chain, policy or environmental conditions and to make use of the best available information to feed into project design, promotes environmentally sound and sustainable development. This ultimately reduces project development costs and therefore electricity costs for consumers and reduces CO₂ emissions.
2. Case law recognises that the plans and particulars submitted with planning applications can allow for a certain limited flexibility, where this is applied reasonably and, in a context-specific way. In addition, section 287A of the Planning and Development Act (PDA) (as inserted by the Planning and Development, Maritime and Valuation (Amendment) Act 2022) has expanded the flexibility available and allows planning applications to be made and decided before the Applicant has confirmed certain details of the project.
3. Due to the complexity of the Codling Wind Park (CWP) Project, significant and rapid progression in wind farm technology development, potential changes in environmental conditions and in policy and legislation, the Applicant considers that consenting a degree of design flexibility is appropriate and legally compliant.
4. In this regard the approach to the design development of the CWP Project has sought to introduce flexibility where required to enable the best available technology to be constructed, whilst at the same time to specify project boundaries, project components and project parameters wherever possible, whilst having regard to known environmental constraints.

2 Approach to Presenting the Project Design

5. The approach to the design development of the CWP Project considers permanent infrastructure, temporary infrastructure and installation methods.
6. In general, the CWP Project has sought to specify the location, scale and extents of permanent and temporary infrastructure, however in some cases a degree of design flexibility is required. Subject to the detail concerned, this flexibility is presented in three ways:
 - **Options:** Consent is sought for up to two options for certain permanent infrastructure details and layouts, for example, wind turbine generator (WTG) Layout Option A (250 m rotor diameter) or WTG Layout Option B (276 m rotor diameter). Each design option is described in detail in **Chapter 4 Project Description**, which provides the details associated with each option.
 - **Dimensional flexibility:** Dimensional flexibility is described as a limited parameter range i.e. upper (maximum) and lower (minimum) values for a given detail such as cable length.
 - **Locational flexibility:** Locational flexibility of permanent and temporary infrastructure is described as limit of deviation (LoD) from a specific point or alignment.
7. Installation methods for permanent infrastructure have been identified and described in full, however, as with the design of permanent infrastructure, a degree of flexibility is required as final decisions on methods and techniques to be employed will not be made until the appointment of the primary contractors closer to the time of construction.

8. Where required, flexibility concerning installation methods is presented by means of options. The details associated with the installation methods are specified, where possible, or otherwise described as a limited parameter range i.e. upper (maximum) and lower (minimum) values for a given detail.

3 Representative Scenario Assessment

9. The CWP Project Environmental Impact Assessment Report (EIAR) will identify, describe and assess all of the likely significant effects of the proposed development on the environment. To achieve this for all options and dimensional flexibility, and at the same time to produce application documents that are concise and readable, each chapter of the EIAR will assess a selection of representative scenarios, rather than assessing every possible scenario. A “representative scenario” is a combination of options and dimensional flexibility that has been selected to represent all of the likely significant effects of the project on the environment. Some topics may require several representative scenarios to be identified to ensure all impacts are identified, described and assessed.
10. For material assets - marine infrastructure this analysis for construction and operation and maintenance (O&M) phase impacts is presented in **Table 1** and **Table 2**, respectively. Each table identifies one or more representative scenarios for each impact with supporting text to demonstrate that no other scenarios would give rise to new or materially different effects; taking into consideration the potential impact of other scenarios on the magnitude of the impact or the sensitivity of the receptor(s) that is being considered.
11. Where the potential for a new or materially different impact is identified, then further representative scenarios must be assessed in full within the main chapter.
12. This is distinct from the approach to assessing locational flexibility, where differences in impacts are assessed in this Appendix. The difference in approaches arises because there is a much higher degree of confidence in the locations and alignments assessed in the main chapter than there is for the final options and dimensions.
13. Overall, this approach will ensure that the EIAR will identify, describe and assess:
 - Every impact type that could arise from the proposed development, taking account of the full range of options and dimensional flexibility;
 - Every materially different magnitude of impact that could arise from the proposed development within the proposed options and dimensional flexibility; and
 - Every materially different sensitivity of receptor that could arise from the proposed development within the proposed options and dimensional flexibility.

Table 1 Representative scenario assessment - construction phase impacts

Impact	Relevant project details			Representative scenario(s) and notes / assumptions	Rationale for representative scenario(s)				
Impact 1: Direct effects on marine infrastructure	Generating station (including WTGs, inter-array cables (IACs), interconnectors) and offshore transmission infrastructure (OfTI) (including OSSs and offshore export cables)	WTG Option A	WTG Option B		Questions to demonstrate assessment has considered all scenarios	Response			
	Installation methods and effects			The construction of the CWP Project has the potential to result in direct effects (damage to existing infrastructure, as a result of cable snagging during seabed preparation or installation works). It should be noted that where boulder clearance overlaps with sand wave clearance, the boulder clearance footprint will be within the sand wave clearance footprint. Offshore, WTG Option A forms the representative scenario as this represents the greatest level of temporary disturbance (greatest footprint), and therefore WTG Option A forms the presentational basis of the assessment for Impact 1 in this chapter. WTG Option B would result in a lower level of disturbance and would not introduce new impacts, or an impact of materially different magnitude.	1. Are there infrastructure layout options (permanent or temporary) which may introduce new impacts? <i>Note - this could be a new impact entirely or the introduction of an existing impact pathway to a new receptor.</i> 2. Are there infrastructure layout options (permanent or temporary) which may introduce a materially different magnitude of impact? 3. Are there infrastructure layout options (permanent or temporary) which may introduce a material change in the sensitivity of the receptor(s) (greater or lesser)? 4. Are there alternative installation methods which may introduce new impacts? 5. Are there alternative installation methods which may introduce a materially different magnitude of impact? 6. Are there alternative installation methods which may materially alter the sensitivity of the relevant receptor(s) (greater or lesser).	1. No, WTG Option B would not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, the two layouts are highly unlikely to result in differing magnitudes for Impacts 1 as the impacted areas are very similar between scenarios (i.e. WTG Option A (11,931,840 m²) and WTG Option B (11,459,170 m²)). The total for assessment, considering the works at landfall too for which there is a single option, is 12,088,840 m², comprising 11,931,840 m² within the array and OECC and 157,000 m² for the landfall; the onshore substation reclamation is considered separately. 3. No, WTG Option B will not influence the sensitivity of the receptor that is being assessed. As set out in Table 18-4 of Chapter 18 Material Assets - Marine Infrastructure sensitivity considers the value, tolerance, adaptability and recoverability of the receptor(s), which is not influenced by details or characteristics of the project. 4. No, in relation to Impact 1, where alternative methods were used these would not introduce new impact receptor pathways. 5. No, in relation to Impact 1, where alternative methods were used these would not introduce a materially different magnitude of impact. 6. No, in relation to Impact 1, where alternative methods were used these would not materially alter the sensitivity of the receptor. As set out in Section 18.4 of Chapter 18 Material Assets - Marine Infrastructure , sensitivity considers the value, tolerance, adaptability and recoverability of the receptor(s), which is not influenced by details or characteristics of the project.			
	Boulder clearance: array site seabed clearance area (m²)						2,556,000 - 2,934,000	2,494,000 - 2,772,000	
	Sand wave clearance: array site seabed clearance area (m²)						205,250 - 259,250	220,000 – 277,500	
	Inter-array cables (IACs) and interconnector cable installation: Total seabed disturbed (m²)						1,911,000 - 2,214,000	1,791,000 - 2,079,000	
	Boulder clearance: OECC seabed clearance area (m²)						2,220,000 - 2,616,000		
	Sand wave clearance: OECC seabed clearance area (m²)						198,550		
	Offshore export cable installation: Total seabed disturbed (m²)						1,890,000 - 2,187,000		
	Jack up vessel (JUV) operations total impact area (m²)						240,000	180,000	
	WTGs and OSS anchoring operations total impact area (m²)						280,800	237,600	
	IAC and interconnector cable anchoring operations total impact area (m²)						371,520	280,800	
	Offshore export cable anchoring operations total impact area (m²)						630,720		
	Total area of disturbed sediment for offshore construction activities (m²)						11,931,840	11,459,170	
	Landfall								
	Installation methods and effects								
	Total seabed disturbed by cofferdam (m²)						6,100		
	Total seabed disturbed by intertidal cable duct installation (m²)						36,000		
	Total area of seabed in transition zone affected by support structures (m²)						6,900		

Impact	Relevant project details			Representative scenario(s) and notes / assumptions	Rationale for representative scenario(s)	
	Total area of seabed in transition zone affected by installation of cables using either open cut trenching or a shallow water trenching tool (m²)	108,000				
	Total area of disturbed sediment for landfall construction activities (m²)	157,000				
	Installation methods and effects (onshore substation)					
	Area of reclaimed land from Liffey (m²)	1,800				
Impact 2: Indirect effects on marine infrastructure	Generating station (including WTGs, inter-array cables (IACs), interconnectors) and offshore transmission infrastructure (OfTI) (including OSSs and offshore export cables)	WTG Option A	WTG Option B	The construction of the CWP Project has the potential to result in indirect effects (through the increase in suspended sediment concentrations (SSC) resulting in associated deposition) on marine infrastructure.	1. Are there infrastructure layout options (permanent or temporary) which may introduce new impacts? Note - this could be a new impact entirely or the introduction of an existing impact pathway to a new receptor.	1. No, WTG Option B would not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, the two layouts are highly unlikely to result in differing magnitudes for Impacts 2 as the impacted areas are very similar between scenarios (i.e. WTG Option A (11,931,840 m²) and WTG Option B (11,459,170 m²)).
	Installation methods and effects	As above	As above			
	Landfall			Temporary disturbance relates to seabed preparation for foundations and cables, jack up and anchoring operations, and cable installation. Increases in SSC and remobilisation of contaminated sediments occur as a result of temporary disturbance to the seabed and as such the construction activities relating to these impacts are the same and both impacts have been assessed together. Offshore, WTG Option A forms the representative scenario as this represents the greatest level of temporary disturbance (increased levels of SSC), and therefore Option A forms the presentational basis of the assessment for Impact 2 in this chapter. WTG Option B would result in a lower level of disturbance and would not introduce new impacts, or an impact of materially different magnitude.	2. Are there infrastructure layout options (permanent or temporary) which may introduce a materially different magnitude of impact? 3. Are there infrastructure layout options (permanent or temporary) which may introduce a material change in the sensitivity of the receptor(s) (greater or lesser)? 4. Are there alternative installation methods which may introduce new impacts? 5. Are there alternative installation methods which may introduce a materially different magnitude of impact? 6. Are there alternative installation methods which may materially alter the sensitivity of the relevant receptor(s) (greater or lesser).	3. No, WTG Option B will not influence the sensitivity of the receptor that is being assessed. As set out in Table 18-4 of Chapter 18 Material Assets - Marine Infrastructure sensitivity considers the value, tolerance, adaptability and recoverability of the receptor(s), which is not influenced by details or characteristics of the project. 4. No, in relation to Impact 2, as described, the use of alternative methods will not introduce new impacts. 5. No, in relation to Impact 2, as described, the use of alternative methods will not introduce a materially greater magnitude of impact. 6. No, in relation to Impact 2, as described, the use of alternative methods will not materially alter the sensitivity of the receptor. As set out in Section 18-4 of Chapter 18 Material Assets - Marine Infrastructure , sensitivity considers the value, tolerance, adaptability and recoverability of the receptor(s), which is not influenced by details or characteristics of the project.
	Installation methods and effects	As above	As above			

Table 2 Representative scenario assessment - operational phase impacts

Impact	Relevant project details			Representative scenario(s) and notes / assumptions	Rationale for representative scenario(s)	
Impact 1: Direct effects on marine infrastructure	Generating station (including WTGs, inter-array cables (IACs), interconnectors) and offshore transmission infrastructure (OfTI) (including OSSs and offshore export cables)	WTG Option A	WTG Option B		Questions to demonstrate assessment has considered all scenarios	Response
	Permanent infrastructure			The operational phase of the CWP Project has the potential to result in direct effects (damage to existing infrastructure, as a result of cable snagging during repair works).and indirect effects (through the increase in SSC as cable maintenance is likely to require cable recovery to the surface, repair, and reburial) on marine infrastructure. The operational activities relating to Impact 1 and Impact 2 are the same and both impacts have been assessed together, as both direct and indirect effects results in temporary disturbance to the seabed. WTG Option A forms the representative scenario as this represents the greatest level of temporary disturbance, and therefore WTG Option A forms the presentational basis of the assessment for Impact 1 and Impact 2 in this chapter. WTG Option B would result in a lower level of disturbance and would not introduce new impacts, or an impact of materially different magnitude.	1. Are there infrastructure layout options which may introduce new impacts? <i>Note - this could be a new impact entirely or the introduction of an existing impact pathway to a new receptor.</i> 2. Are there infrastructure layout options which may introduce a materially different magnitude of impact (greater or lesser)? 3. Are there infrastructure layout options which may introduce a material change in the sensitivity of the receptor(s) (greater or lesser)?	1. No, WTG Option B would not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, the two layouts are highly unlikely to result in differing magnitudes for Impacts 1 and 2 as the impacted areas are very similar between scenarios. 3. No, WTG Option B will not influence the sensitivity of the receptor that is being assessed. As set out in Table 18-4 of Chapter 18 Material Assets - Marine Infrastructure , sensitivity considers the conservation value of the receptor, which is not influenced by details or characteristics of the project.
	Total WTG monopile seabed area take (with scour protection) across the array site (m²)	273,000	218,400			
	Total OSS monopile seabed area take (with scour protection) across the array site (m²)	10,920				
	Length of inter-array and interconnector cabling on the seabed (km)	127.4 - 147.6	119.4 - 138.6			
	Interconnector and inter-array cabling – total area of seabed covered by cable protection (m2)	208,600				
	Interconnector and IAC trench depth (m)	1.5				
	Interconnector and IAC voltage (kV)	66				
	Total length of offshore export cables (km)	126.0 – 146.0				
	Offshore export cables – total area of seabed covered by cable protection (m²)	105,000				
	Offshore export cables trench depth (m)	2.0 (except cable buried within the zone of greater burial depth adjacent to DL Harbour which will have a trench depth of 3 m)				
	Offshore export cable voltage (kV)	220				
	Total length of cables with the potential to emit EMF and/or temperature changes (km)	253.4 – 293.6	245.4 – 284.6			
	Onshore substation					
	Permanent infrastructure					

Impact	Relevant project details			Representative scenario(s) and notes / assumptions	Rationale for representative scenario(s)		
	Onshore substation: length of combi-wall below the HWM (requiring marine piling) (m)	150					
	Onshore substation: Total length of new revetments (m)	150					
	Total length of perimeter structures (m)	300					
	Area of reclaimed land at onshore substation (m²)	1,800					
Impact 2: Indirect effects on marine infrastructure	The representative scenario parameters and installation methods are the same as those for Impact 1 above. Sediment plume modelling suggests that the greatest direction and distance of dispersion of disturbed material was 9-10 km to the east, although one scenario showed dispersion to the southeast reaching 6-7 km and to the west reaching 3-4 km.			Please refer to responses for Impact 1 in the rows above.			
Impact 3: Interference of TV and radio reception	Generating station (WTG only)		WTG Option A	WTG Option B		Questions to demonstrate assessment has considered all scenarios	Response
	Permanent infrastructure			The WTGs could interfere with signals to and from existing TV and radio transmitters and receivers, during the operational phase. WTG Option A forms the representative scenario as this represents the greatest number of turbines with the potential to interfere with signals to and from existing TV / radio transmitters and receiver, and therefore WTG Option A forms the presentational basis of the assessment for Impact 3 in this chapter. WTG Option B would result in a lower level of interference and would not introduce new impacts, or an impact of materially different magnitude.	1. Are there infrastructure layout options which may introduce new impacts? Note - this could be a new impact entirely or the introduction of an existing impact pathway to a new receptor. 2. Are there infrastructure layout options which may introduce a materially different magnitude of impact (greater or lesser)? 3. Are there infrastructure layout options which may introduce a material change in the sensitivity of the receptor(s) (greater or lesser)?	1. No, WTG Option B would not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, the two layouts are highly unlikely to result in differing magnitude for Impact 3 as the impacted areas are very similar between scenarios. 3. No, WTG Option B will not influence the sensitivity of the receptor that is being assessed. As set out in Table 18-4 of Chapter 18 Material Assets - Marine Infrastructure sensitivity considers the value, tolerance, adaptability and recoverability of the receptor(s), which is not influenced by details or characteristics of the project.	
	Number of WTGs		75				60
	WTG rotor diameter (m)		250				276
	Hub height above lowest astronomical tide (LAT) (m)		163				176
	Tip height above LAT (m)		288				314
	Blade tip clearance above LAT (m)		37.72				
	WTG tower diameter (m)		8				9
	Rotor swept area per turbine (m²)		49,087				59,829
	Total rotor swept area of project (m²)		3,681,554				3,589,710

4 Limit of Deviation Assessment

14. As described in **Section 1** of this document, locational flexibility of permanent and temporary infrastructure is described as a LoD from a specific point or alignment.
15. The project components for which a LoD has been defined are presented in **Table 3**. These are further described in EIAR **Chapter 4 Project Description** and have been presented on the planning drawings that accompany the planning application.

Table 3 Defined limits of deviation

Project component	LoD
Offshore project components	
WTGs	100 m from the centre point of each WTG location
WTG monopile locations	Same as WTGs.
WTG monopile scour protection	Same as WTGs.
OSSs	100 m from the centre point of each OSS location
OSS monopile locations	Same as OSSs.
OSS monopile scour protection	Same as OSSs.
IACs and interconnector cables	100 m either side of the preferred alignment of each IAC and interconnector cable 200 m from the centre point of each WTG location
Offshore export cables	250 m either side of the preferred alignment within the array site. The OECC outside of the array site.
Landfall	
Transition Joint Bays (TJBs)	0.5 m either side (i.e. east / west) of the preferred TJB location
Landfall cable ducts (and associated offshore export cables within the ducts)	Defined LoD boundary with 30 – 55 m horizontal width
Intertidal cable ducts (and associated offshore export cables within the ducts)	The OECC
Intertidal offshore export cables (non ducted sections)	The OECC
Onshore substation	
Location of onshore substation revetment perimeter structure	Defined LoD boundary

16. For the purposes of the EIAR, the main chapter for material assets - marine infrastructure assesses the specific preferred location for permanent infrastructure. However, this document provides further

analysis to determine if the proposed LoD for permanent infrastructure may give rise to any new or materially different effects, taking into consideration the potential impact of the proposed LoD on the magnitude of the impact.

17. For material assets - marine infrastructure this analysis for construction and O&M phase impacts is presented in **Table 4** and **Table 5**, respectively. Where the potential for a LoD to cause a new or materially different effect is identified, then this is noted in the tables below and is considered in full within the main chapter.

Table 4 Limit of deviation assessment - construction phase impacts

Impact	Relevant project element	Limit of deviation	Questions to demonstrate assessment has considered all scenarios	Response
Impact 1: Direct effects on marine infrastructure	Generating station		<p>1. Does the proposed LoD (locational flexibility) introduce new impacts? (i.e. the introduction of an existing impact pathway to a new receptor).</p> <p>2. Does the proposed LoD (locational flexibility) introduce a materially different magnitude of impact?</p>	<p>1. No, the implementation of the LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment.</p> <p>2. No, direct effects during pre-installation activities has been calculated based on the upper limit for IAC, interconnector and export cable lengths which factors in the proposed LoD for these project elements.</p> <p>Direct effects from landfall works is calculated based on the size of the proposed temporary infrastructure, which is immaterial of the infrastructure location.</p> <p>Whilst the LoD may alter the proportions of each receptor with the potential to be impacted, the proportional differences are small, relative to the overall availability of each receptor, and would not constitute a material change in magnitude of any of Impacts 1. However, the LoD may impact the receptor in which the location of the impact falls and this could alter the potential maximum area of a given receptor to be impacted by direct and indirect effects. The implementation of the LoD is therefore unlikely to alter the assigned magnitude of the impact.</p>
	IACs and interconnector cables	100 m either side of the preferred alignment of each IAC and interconnector cable 200 m from the centre point of each WTG location		
	Offshore export cables			
	Offshore export cables	250 m either side of the preferred alignment of each export cable within the array site. The OECC outside of the array site.		
	Landfall			
	Horizontal alignment of intertidal cable ducts	The OECC		
	Horizontal alignment of intertidal offshore export cables	The OECC		
	Intertidal supporting structures	The OECC		
	Installation methods and effects (onshore substation)			
	Location of onshore substation revetment perimeter structure	Defined LoD boundary		
Impact 2: Indirect effects on marine infrastructure	The LoD parameters and installation methods are the same as those for Impact 1 above. Sediment plume modelling suggests that the greatest direction and distance of dispersion of disturbed material was 9-10 km to the east, although one scenario showed dispersion to the southeast reaching 6-7 km and to the west reaching 3-4 km.		<p>1. Does the proposed LoD (locational flexibility) introduce new impacts? (i.e. the introduction of an existing impact pathway to a new receptor).</p> <p>2. Does the proposed LoD (locational flexibility) introduce a materially different magnitude of impact?</p>	<p>1. No, the implementation of the LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment.</p> <p>2. No, indirect effects during pre-installation activities has been calculated based on the upper limit for IAC, interconnector and export cable lengths which factors in the proposed LoD for these project elements.</p> <p>indirect effects from landfall works is calculated based on the size of the proposed temporary infrastructure, which is immaterial of the infrastructure location.</p> <p>Whilst the LoD may alter the proportions of each receptor with the potential to be impacted, the proportional differences are small, relative to the overall availability of each receptor, and would not constitute a material change in magnitude of any of Impacts 2. However, the LoD may impact the receptor in which the location of the impact falls and this could alter the potential maximum area of a given receptor to be impacted by direct and indirect effects. The implementation of the LoD is therefore unlikely to alter the assigned magnitude of the impact.</p>

Table 5 Limit of deviation assessment - operational phase impacts

Impact	Relevant project element		Limit of deviation	Questions to demonstrate assessment has considered all scenarios	Response
Impact 1: Direct effects on marine infrastructure	Generating station including WTGs, interconnectors and IACs			1. Does the proposed LoD (locational flexibility) introduce new impacts? (i.e. the introduction of an existing impact pathway to a new receptor). 2. Does the proposed LoD (locational flexibility) introduce a materially different magnitude of impact?	1. No, the implementation of the LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, direct effects during operational activities has been calculated based on the upper limit for WTG and OSS scour protection and IAC, interconnector and export cable lengths and cable protection which factors in the proposed LoD for these project elements. Direct effects is calculated based on the area of the proposed infrastructure including scour and cable protection, which is immaterial of the infrastructure location. Whilst the LoD may alter the proportions of each receptor with the potential to be impacted, the proportional differences are small relative to the overall availability of each receptor and is unlikely to constitute a material change in magnitude of any of operational phase Impact 1. The implementation of the LoD is therefore unlikely to alter the assigned magnitude of the impact.
	WTG locations and scour protection		100 m from the centre point of each WTG location		
	OSSs and scour protection		100 m from the centre point of each OSS location		
	IACs and interconnector cables, cable protection		100 m either side of the preferred alignment of each IAC and interconnector cable 200 m from the centre point of each WTG location		
	Offshore export cables				
	Offshore export cables, cable protection		250 m either side of the preferred alignment of each export cable within the array site. The OECC outside of the array site.		
	Installation methods and effects (onshore substation)				
	Location of onshore substation revetment perimeter structure		Location of onshore substation revetment perimeter structure		
Impact 2: Indirect effects on marine infrastructure	The LoD parameters and installation methods are the same as those for Impact 1 above. Sediment plume modelling suggests that the greatest direction and distance of dispersion of disturbed material was 9-10 km to the east, although one scenario showed dispersion to the southeast reaching 6-7 km and to the west reaching 3-4 km.			1. Does the proposed LoD (locational flexibility) introduce new impacts? (i.e. the introduction of an existing impact pathway to a new receptor). 2. Does the proposed LoD (locational flexibility) introduce a materially different magnitude of impact?	1. No, the implementation of the LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, indirect effects during operational activities has been calculated based on the upper limit for WTG and OSS scour protection and IAC, interconnector and export cable lengths and cable protection which factors in the proposed LoD for these project elements. Indirect effects is calculated based on the area of the proposed infrastructure including scour and cable protection, which is immaterial of the infrastructure location. Whilst the LoD may alter the proportions of each receptor with the potential to be impacted, the proportional differences are small relative to the overall availability of each receptor and is unlikely to constitute a material change in magnitude of any of operational phase Impact 2. The implementation of the LoD is therefore unlikely to alter the assigned magnitude of the impact.
Impact 3: Interference of TV and radio reception	Generating station (WTGs only)			1. Does the proposed LoD (locational flexibility) introduce new impacts? (i.e. the introduction of an existing impact pathway to a new receptor). 2. Does the proposed LoD (locational flexibility) introduce a materially different magnitude of impact?	1. No, the implementation of the LoD does not introduce any new impact receptor pathways that have not already been considered as part of the assessment. 2. No, the interference of TV and radio reception changes during the operational phase have been calculated based on the upper limit for WTGs which factors in the proposed LoD for these project elements. The implementation of the LoD does not therefore alter the assigned magnitude of the impact.
	WTG locations and scour protection		100 m from the centre point of each WTG location		