

Table 2: Phases and Potential Impact Producing Factors of Offshore Wind Development

<p>PRE-CONSTRUCTION PHASE</p> <p>Baseline surveys, site design, assessment of wind potential, component selection</p>	<p>CONSTRUCTION PHASE</p> <p>Foundation pile driving, installation of submarine array cables, install of transition pieces onto foundations, offshore substation, connection to grid (onshore and onshore substation construction)</p>	<p>OPERATIONS AND MAINTENANCE PHASE</p> <p>Operational (power producing) phase of the development including monitoring and maintenance</p>	<p>DECOMMISSIONING PHASE</p> <p>Fluids drained and stored, nacelle and blades removed (cut). Piles cut ~ 2m below seabed and removed and transportation to shore via vessels. When possible and where applicable inter-array and export cables are removed (some remain in place).</p>
<p>Temporary Exclusion Zones</p> <ul style="list-style-type: none"> • Seismic and Sonar surveys 	<p>Temporary Exclusion Zones</p> <ul style="list-style-type: none"> • Commercial shipping, transportation, recreational use, tourism, fishing • Military exercises, unexploded ordinance 	<p>Permanent (during OSW life span) Exclusion Zones</p> <ul style="list-style-type: none"> • Commercial shipping, transportation, recreational use, tourism, fishing • Military exercises radar and communications interactions • Aviation interactions 	<p>The same IPF's and associated Valued Components noted in the Construction phase apply for Decommissioning phase.</p>
<p>Increased Vessel and Equipment Activity</p> <ul style="list-style-type: none"> • Increased sound and vibration • Increased vessel traffic and collision potential • Use of helicopters and vessels for surveying • GHG Emissions • Human health 	<p>Increased Vessel and Equipment Activity</p> <ul style="list-style-type: none"> • Military exercises, unexploded ordinance • Underwater soundscapes/radar interaction • Increased sound and vibration • Increased lighting • Increased vessel collision potential • Use of helicopters and vessels during construction 	<p>Increased Vessel and Equipment Activity</p> <ul style="list-style-type: none"> • Intermittent during monitoring/maintenance of turbines 	
<p>Accidents/Unplanned Releases</p> <ul style="list-style-type: none"> • Potential for accidents and spills/releases due to increased vessel presence • Worker health and safety 	<p>Accidents/Unplanned Releases</p> <ul style="list-style-type: none"> • Potential for accidents and spills/releases due to increased vessel presence and equipment use • Worker health and safety 	<p>Accidents/Unplanned Releases</p> <ul style="list-style-type: none"> • Potential for accidents and spills/releases due to increased vessel presence and turbine installations 	

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		<ul style="list-style-type: none"> • Worker health and safety 	
	<p>Noise, Dust (air quality), Vibration, Lighting, Electromagnetic Fields (EMF) from cable arrays</p> <ul style="list-style-type: none"> • Human health • Visual impact during construction (coastal) 	<p>Electromagnetic Fields (EMF)</p> <ul style="list-style-type: none"> • Human health at onshore substation locations/grid connection 	
	<p>Construction of cables, pipelines, anchoring and mooring and turbine foundations (including trenching, dredging, rock cutting, pile driving, drilling)</p> <ul style="list-style-type: none"> • New port development • Workforce/skills development requirements • GHG Emissions • Human health • Interaction with structures, sites or things of historical, archaeological, paleontological, or architectural significance • Interaction with Protected and Special Areas • Visual aesthetics and acoustic environment including tourism) 	<p>Operating Turbines, Cable Arrays and Electrical Grid Connection</p> <ul style="list-style-type: none"> • Visual impact from shore (day and night [lighting]) • Noise of turbine (when in proximity) • Reducing GHG emissions and climate change goals • Economic growth/power export market 	

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		<p>Naturally Occurring Conditions</p> <ul style="list-style-type: none"> • Sea ice interaction • Seismic activity • Geohazards • Weather and extreme weather (climate change effects) • Substrate destabilization, scour and transportation 	

Note: Impact Producing Factors associated with the following valued components have been addressed under separate Advice Requests and ongoing engagement:

- Fish and fish habitat (including commercial fisheries, marine mammals and sea turtles); and,
- First Nations