Hornsea Offshore Wind Farm

Project Two

Environmental Statement
Volume 6 – Onshore

Annex 6.8.7
Construction Vehicle Trip Generation Assumptions

PINS Document Reference: 7.6.8.7
APFP Regulation 5(2)(a)

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The proposed onshore infrastructure (both the indicative onshore cable route and the HVDC converter/HVAC substation site at North Killingholme) for Project Two is immediately adjacent to Project One. The synergies were identified at an early stage and the environmental surveys to inform the baseline were designed to inform the EIA for both Project One and Project Two.

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1 CONSTRUCTION VEHICLE TRIP GENERATION ASSUMPTIONS

Location	Assumption
Trenchless Technology Site	
Number of staff per Trenchless Technology site	8-13 staff
Staff mode share	75% single occupancy car
Duration of works at each Trenchless Technology site	3 months minimum
Steel shuttering per drilling pit for worst case (Thrust Bore)	210 m^2 with associated bracings
Cable Route	
Rate of construction	1 km/month (minimum 3 months)
% of haul road surfaced with aggregate	100%
Width of haul road to calculate amount of aggregate	5 m Where TT site compounds overlap the Hornsea Project Two cable route, it is assumed that surfacing material for TT compounds is subsequently reused for the haul road.
Depth of aggregate used for haul road	0.3 m
Tonnes of material per HGV	20 tonnes
Trenches	2 trenches
Width of trenches	7 m at surface
% of compounds assumed to be surfaced with aggregate	50% or 25% for TT compounds spanning both Hornsea Project One and Hornsea Project Two routes.
Depth of aggregate surfacing at compounds	0.3 m
Staff per work front (5 work fronts operating at any one time)	20 staff
Staff Mode Share	75% single occupancy car
Minimum diameter of ducting	220 mm [estimate based on 180mm diameter cables]
Length of cable per delivery (1 cable roll per HGV)	750 m
% of cable route requiring ducting	100%
Length of ducting per HGV	750 m
Length of cable route served by one HGV carrying cable tiles	800 m
Depth of imported stabilised backfill	0.6 m
% of cable route work site fenced	100%
Cable route fencing per HGV	200 m
Average length of cable route trench supports carried by 1 HGV	500 m
Excavated material exported from route	4554 m^3 per km
Converter Station	
HVDC Converter/HVAC substation Total HGV Movements	14,085 movements
Duration of HVDC Converter/HVAC substation construction	1 year (assume 1 year as a worst case in terms of daily trip generation)
Staff	50 staff
Mode share	50% single occupancy car
Number of abnormal loads	Worst case 23 abnormal loads for 1.8GW HVAC, comprising: 14 Reactors 4 Filters 2 Static Var Compensators 3 Transformers (includes 1 spare)