

CLASHINDARROCH II

WIND FARM

Outline Construction Traffic Management Plan

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Introduction

Purpose and Scope

- 1 This document takes the form of an outline Construction Traffic Management Plan (CTMP), providing information to Aberdeenshire Council in regard to the management of all Site traffic, with particular reference to environmental safeguards and mitigation required to address impacts identified in the Environmental Impact Assessment (EIA), Chapter 13: Highways, Traffic and Transport.
- 2 The purpose of the CTMP is to outline the areas for consideration when preparing the programme of works and when undertaking the Site operation. It will be used during the construction phase of the development and updated as necessary, acting as a 'living' document to ensure it is always current. Where the document is updated it will clearly be noted as a variation.

Key Considerations

- 3 This CTMP is the first stage of the requirement to manage and control all related traffic activity during the construction phase of the development. This CTMP contains the following information:

Table 1: Key Topics Covered

Section	Topic
Section 2	Background to the Development
Section 3	Construction
Section 4	Mitigation Measures
Section 5	Complaints and Inquires Procedure
Section 6	Summary and Closure

- 4 The principal mitigation measures that the CTMP will cover may be summarised as follows:
 - methods for accessing the Site;
 - Site access Improvements;
 - contractor responsibilities;
 - abnormal load management;
 - onsite management;
 - adverse weather conditions; and
 - driving and speed restrictions.

Background

- 5 The application Site is located within Clashindarroch Forest, approximately 6km to the south west of the settlement of Huntly and 55km northwest of Aberdeen, nearby settlements include Rhynie, Haugh of Glass and Cabrach. The Site is located within the Aberdeenshire Council administrative boundary and is owned by Forestry Commission Scotland. Clashindarroch Forest forms part of the development area which is owned and operated by Forest Enterprise Scotland (FES).
- 6 The area of the Site extends to 1234ha, with the proposed wind turbines located in the southern part of the Site. Access to the Site would be taken from the A920 and would utilise as far as possible the existing onsite access tracks.

Proposed Development

- 7 The proposed development would consist of the following components:
- in the order of 14 turbines with an installed capacity in excess of 50MW when considered as a whole;
 - substation and control building;
 - onsite access tracks;
 - crane hardstandings adjacent to each turbine;
 - temporary Site construction compound and associated infrastructure;
 - central laydown area with associated infrastructure;
 - one permanent met mast; and
 - up to three borrow pits - material for the construction of onsite tracks would, where possible, be derived from borrow pits within the Site should the materials found be suitable.

Local Highway Network

- 8 The existing road network in the vicinity of the Site comprises the A920 which runs in an east to west direction adjacent to the north of the Site. The A920 is a single carriageway rural road which connects to the A941 in the west and to the A96 in the east. The A96 is a major trunk road and runs in a north to south direction connecting Inverness in the north to Aberdeen in the south.
- 9 The operational Clashindarroch Wind Farm is serviced by an access track which joins with the A920 at a priority junction at Cairncraig (near Craigheads/Wellheads). The access track junction is surfaced and laid out so as to accommodate the turning of abnormal load (AL) vehicles required for construction of the Clashindarroch Wind Farm.

Construction

Construction Programme

- 10 An indicative approximately (approx.) 18 month construction programme has been prepared and is set out in the construction timeline shown in Table 3-1 in Chapter 3: Description of the Development. The approx. 18 month construction programme is currently expected to begin in August 2021 and an additional short period of reinstatement would follow at the very end.

Hours of Working

- 11 Any noisy activities and Heavy Goods Vehicle (HGV) deliveries would be restricted to the hours of 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. However turbine delivery might need to take place outside of these days/times, subject to agreement with Aberdeenshire Council.

Construction Access

- 12 Vehicular access to the Site would be from the Craighead/Wellheads access junction with the A920. Abnormal Load components would be imported to the Site via the A96 from the port of Aberdeen northbound towards the A920 Site access road. The return trip for abnormal load departures (with the transport configurations un-extended) would follow the same route back to Aberdeen but in reverse, taking the A920 east and then south on the A96 towards Aberdeen.
- 13 Conventional construction traffic would be routed to/from the Site access, eastbound along the A920, towards the A96. Construction materials would be transported to Site in standard HGV's and would be sourced as locally as possible, arriving at the Site from the east, via the A920/A96. Construction workers commuting during the construction and commissioning periods of the proposed development would also generate light vehicle traffic, such as cars and work vans. Light vehicles travelling to the Site would travel predominantly from the east, arriving from a variety of destinations.
- 14 The proposed development would generate occasional maintenance trips during the operational phase, but these would not lead to any variation in the baseline traffic flows beyond that of every day fluctuations. The decommissioning phase would lead to an increase in trip generation, although at a lower level than would be anticipated during the construction phase and without the requirement for abnormal loads.

Construction Movements

- 15 The majority of construction activities would incur HGV trip generation which would be spread over the period defined in the construction programme as set out within Chapter 3 of the Environmental Impact Assessment Report (EIA Report). The highest level of HGV trip generation would occur in months seven to nine of the construction period, with the maximum level of two-way trip generation of 78 HGV movements per day in month nine, when the material is being imported for the construction of internal access tracks and the turbine foundations. Over the 18 month construction period, HGV trip generation arising from the Site would amount to an average of 27 movements per day.
- 16 All construction vehicles would enter the Site from the east and travel along the A920 to the A920/A96 junction. It is anticipated that 50% of the traffic would head north along the A96 and the remaining 50% would head south.

Light Vehicle Trips

- 17 Light vehicles (LGVs) are those which consist of smaller vehicles such as cars and vans, which would typically be associated with the workforce. It is envisaged that a maximum of 125 personnel would be required on the Site at any one time. Based on the conservative assumption that 20% of workers would car share, this would equate to 100 vehicle trips per day (200 two way movements per day). It has been assumed that light vehicle trips would be distributed on the Highway in the same proportions as for the Clashindarroch Wind Farm. 25% of the light vehicle leaving the Site would turn left out of the Site onto the A920 heading west towards Dufftown with the remaining 75% turning right towards the A96. The split for vehicles traveling along the A96 from the A920 would see 30% head north towards Keith with the remaining 45% heading south.

Mitigation Measures

Contractors

- 18 Contractors with experience of the nature of the construction works proposed, and in this type of environment, will be appointed following a tendering process. Vattenfall Wind Power Ltd (Vattenfall) will appoint an Environmental Clerk of Works (ECoW) who will liaise with the Contractor to ensure that all activities onsite comply with appropriate construction method, relevant planning conditions and protection of the natural heritage interests. The ECoW will act as the first point of contact for any concerns.
- 19 All contractors will be required to supply detailed method statements which will incorporate all planned mitigation methods. All sub-contractors are required to read, understand and adopt all procedures outlined within this construction traffic management plan.
- 20 Sub-contractors who formulate a construction traffic management plan for their work activity must issue it to the Principal Contractor for approval and acceptance prior to Site issue. Any traffic management procedures required to secure a work area or safeguard subcontractor operatives must be co-ordinated with Vattenfall (e.g. use of banksmen, operatives carrying out works roadside etc.).
- 21 The Principal Contractor Site Management must be informed of any planned Site activity and movement of Site traffic, the issue of this information must be received within a suitable and agreed timescale to allow co-ordination of other Site activities.

Signage

- 22 Any signage required on the public highway will be erected and positioned in accordance with the requirements of the Traffic Signs Manual¹ and Safety at Street Works and Road Works – A Code of Practice², and in consultation with the Aberdeenshire Council.
- 23 Any permanent signs and street furniture which are required to be relocated to allow abnormal loads to pass, shall be identified in consultation with Aberdeenshire Council and through a trial run.
- 24 Warning signage on site must be complied with at all times. The two most important signs are “no entry” and “no unauthorised vehicles”. In order to proceed beyond these signs vehicle drivers must stop and contact the gangerman/foreman in control of the area to be escorted through the local area.

Access Improvements

- 25 The existing Site access would be widened to allow for the movement of abnormal load vehicles for transport configurations larger than for the construction of the Clashindarroch Wind Farm. An outline layout of the proposed access junction is provided as Figure 3.1 of the EIA Report . The construction Site will be accessed via a single access point provided directly off the A920 at Craighead.

Abnormal Load Management

- 26 Prior to the movement of abnormal loads, extensive public awareness is required to allow residents to plan and time their journeys to avoid disruption. The haulage contractor shall remain responsible for

¹ Traffic Signs Manual, part of Traffic signs. Department for Transport, 30 June 2006, updated 23 February 2017

² Safety at Street Works and Road Works, A Code of Practice. Department for Transport, 2013.

obtaining all necessary permits from the relevant road and bridge authorities along the access route.

- 27 The movement of abnormal loads will need to be timed to avoid periods of heavy traffic flow to minimise disruption to the public. These include the normal daily rush hour periods, Saturdays and major public events. Specific timing restrictions imposed by the police or local authority have not been determined at this stage.
- 28 Through urban areas temporary parking restrictions may be necessary to guarantee a clear route for the abnormal loads, and these will need to be arranged in advance through the appropriate local authority. The parking restrictions will need to be locally enforced.
- 29 Due to the size of vehicles required to transport these loads, escorts will be required for the entire route to control oncoming and conflicting traffic.

Adverse Weather Conditions

- 30 All works will be forward planned wherever practicable taking into account the anticipated weather conditions. At the start of the day the Site foreman will assess the weather conditions prior to permitting their operatives to access the Site.
- 31 Due to the location and topography of the Site, the weather can be severe, resulting in an adverse effect on visibility. The weather will be constantly monitored and if necessary all plant/vehicle movements will be stopped/suspended by the Site foreman if they deem it is unsafe for work to continue.
- 32 The Site foreman will assess the track and Site conditions at the start of each day to determine if conditions are suitable to allow access to plant or vehicles.
- 33 During winter or poor weather, a separate procedure will be introduced to allow the track conditions to be communicated to all parties accessing the Site. An assessment will be carried out every morning by the general foreman or the foreman in control of Site operations which will then be communicated to the gatehouse. Contractors should contact the Principal Contractors general foreman to find out the Site status prior to arrival on Site if required.
- 34 The day-to-day track conditions will be advised to all visitors via a display board situated at the Site entrance; the track condition will be rated as either:

Condition Red: The access track is closed to all vehicular traffic.

Condition Amber: The access track is open to 4x4 vehicles only (operating in full 4x4) and is not suitable for delivery etc. vehicles.

Condition Green: The main Site access track is considered open to all permitted vehicles.

- 35 All contractors will be required to make their own assessment of track conditions during access or egress from the Clashindarroch II Wind Farm Site and take appropriate action determined during their assessment. During the course of the day, and in the event of weather conditions deteriorating, the Principal Contractor will notify the nominated personnel from each contractor onsite, to the present condition.
- 36 Contractors will be reminded that they have a duty to consider the weather and track conditions throughout the day and come back down off the hillside if they feel unsafe at any time.

Onsite Management

Onsite Safety

- 37 All personnel entering the working area will wear hi-visibility vest or jacket, head protection, safety footwear, eye protection and gloves at all times when out with the vehicle.
- 38 Everyone required to work within the Site area will be made aware that they have a responsibility for the safety of themselves and others. All Site operatives and visitors have a “duty of care” to themselves and others and need to be conscious of the surroundings and ongoing activities locally. In the event of an emergency, right of way to all emergency services will be given at all times. Emergency services and control of access will be carried out in compliance with the Site emergency procedures.

Parking

- 39 Parking areas located at the temporary construction compound will have safe and secure barriers to segregate all personnel from Site plant and vehicle routes. All signage within designated car parking areas must be followed, with no vehicles parked in a way which restricts either vision or access. No parking whatsoever will be allowed on public roads; all cars that are directed to the Site car parks will be required to reverse park to comply with Vattenfall and the Principal Contractors requirements.

Onsite Tracks

- 40 Access tracks will be monitored on a daily basis to identify any deterioration of the track condition. Non-emergency remedial works to the track would be carried out at times outside peak times of usage and significant emergency repairs will be undertaken immediately and adjacent track sections will be restricted from use as required to safely accommodate works.
- 41 All routes will be monitored for dust and control or suppression methods will be deployed as appropriate through the use of towed dust suppression systems.

Site Traffic

- 42 All Traffic visiting the Site will be required to report to Site Security where they will obtain clear instructions, before further movement is acceptable. If applicable an induction will be completed, vehicle permits will be issued and the Site rules & emergency procedure will be explained.
- 43 All traffic will use the signed Site passing places and all drivers will accommodate other track users in a courteous manner. Reversing (other than to park) within the compound areas is not permitted.
- 44 Full-time Site traffic (vehicles/plant situated onsite for majority of construction phase) that requires re-fuelling will follow the instructions supplied at their induction, and also the guidelines within their method statement for the works.
- 45 Heavy Site traffic must be equipped with audible reversing warning with additional visual aids e.g. reversing cameras, mirrors utilised on all plant. All safety features must be inspected on a daily basis with faults immediately reported to the Foreman Fitter who will assess and repair any damage etc. to the plant. Management will ensure that all loads are covered fully to limit the loss of material in transit.

Vehicle Cleaning

- 46 A wheel and body wash will be operated within the Site to ensure materials from the Site are not transferred onto the highway, and road cleaning will take place when required to remove any deposits

that are carried from the Site.

Driving and Speed Restrictions

- 47 All vehicles (cars, LGVs, HGVs and ALs) shall be driven in a safe and defensive driving manner at all times within the speed limits. A zero tolerance policy shall be adopted by all contractors, such that any infringement results in that person not returning to Site.
- 48 All cars and drivers of Site operatives vehicles used for commuting to and from Site must be road worthy and legally compliant. All commercial vehicles and drivers must be road worthy and legally compliant.

Complaints and Inquiries Procedure

- 49 It is important that members of the public or interested parties are able to make valid complaints or inquiries about the transport elements of the construction works. Such complaints and inquiries can provide a valuable feedback mechanism which helps reduce potential impacts on sensitive features and will also allow the construction techniques to be refined and improved.
- 50 It is anticipated that the complaints and inquiries procedure can be made either directly to the Site contractor or via Aberdeenshire Council, who in turn would provide feedback to the Site contractor.
- 51 Contact details for the Site contractor and Aberdeenshire Council, as detailed below, will be made clearly visible at the Site entrance.

Name	Position	Contact Number(s)	Email
Vattenfall	Client	X	X
X	Site Contractor	X	X
Aberdeenshire Council	Planning Department	X	X

- 52 All complaints and inquiries will be logged promptly by the Site contractor and kept on site for review by Aberdeenshire Council upon request.

Checking and Corrective Action

- 53 Traffic Monitoring will be undertaken on the A920 close to the site access and will feedback into the content of this CTMP. As outlined above, it is intended for the CTMP to be a 'living document' which is updated periodically as and when required.
- 54 The Contractor is responsible for establishing a programme of monitoring, the results of which shall be fed back for inclusion within the CTMP if necessary.
- 55 Any checking or corrective action required will also be monitored. This methodology will ensure that the construction activities are being undertaken in accordance with the CTMP and that the Contractors are held to account.
- 56 The procedure for addressing non-conformance/compliance and ensuring that corrective actions are undertaken is outlined below:
- Completion of a Non-Conformance Report – this will record any traffic related incident and work that has not been carried out in accordance with the CTMP or Method Statement;
 - Completion of a Corrective Action Report – this will record any identified deficiency as a result of monitoring, inspection, surveillance and valid complaint; and
 - Action – Any necessary actions identified as a result of the above will be allocated to a responsible person, along with a timescale for the action to be undertaken.
- 57 Records of the above will be retained by the Contractor throughout the construction process. The records will be maintained either in hard copy or electronically in such a manner that they are readily identifiable, retrievable and protected against damage, deterioration or loss.

Summary and Conclusions

- 58 This Construction Traffic Management Plan (CTMP) will be introduced in the interests of highway safety to control traffic activity associated with the construction phase of Clashindarroch II Wind Farm. The CTMP also includes reference to environmental safeguards and mitigation required to address impacts identified in the EIA.
- 59 The intention of the CTMP is to detail how construction works for the Clashindarroch II Wind Farm will be undertaken and managed in accordance with contractual and legislative requirements and construction industry best practice.
- 60 The following provides a brief summary of the mitigation measures that will be implemented in order to minimise disruption caused by the construction phase, both to the existing Site operation and local highway network in terms of operation or safety:
- Noisy activities and HGV deliveries would be restricted to the hours of 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturdays. However turbine delivery may need to take place outside of these days/times, subject to agreement with Aberdeenshire Council;
 - Conventional construction traffic would be routed to/from the Site access, eastbound along the A920, towards the A96 where it has been assumed that 50% will head north and 50% south along the A96;
 - It has been assumed that light vehicle trips would be distributed on the Highway in the same proportions as for the operational Clashindarroch Wind Farm. 25% of the light vehicle leaving the Site would turn left out of the Site onto the A920 heading west towards Dufftown, with the remaining 75% turning right towards the A96;
 - The weather will be constantly monitored and if necessary all plant/vehicle movements will be stopped/suspended by the Site foreman if they deem it is unsafe for work to continue;
 - Wheel washing facilities will be provided and used to prevent mud and spoil from vehicles leaving the Site during the building works being deposited on public highway; and
 - A process for complaints and enquiries will be established in order to identify any areas for improvement. Corrective action and monitoring procedures will ensure that any issues highlighted are resolved satisfactorily.
- 61 It is considered that the proposed measures are deemed appropriate to mitigate as necessary the impact on the surrounding local highway network and the immediate Site operation posed by works undertaken during the construction phase. It is intended for the CTMP to be a 'living document' which can be updated periodically as and when required, therefore the above list may be expanded upon. The content of this CTMP, the Construction Environmental Management Plan (CEMP) and various Method Statements (construction and operational) throughout the construction process will ensure that the impact upon the environment is kept to a minimum.

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