

Chleansaid Wind Farm 132 kV OHL Connection Environmental Appraisal (EA) Report

Appendix 3.4: Draft Construction Traffic Management Plan November 2024



LT0000370

Chleansaid Windfarm Connection Construction Traffic Management Plan



LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

Contents

1	INTRODUCTION	3
1.1	Background.....	3
1.2	Purpose.....	3
2	Construction works	4
2.1	Project Description	4
2.2	Construction Process	4
2.3	Construction phase programme.....	5
2.4	Potential traffic impact	5
2.5	Working hours	5
2.6	Site Compound	6
2.7	Access road network	7
3	Construction Traffic	9
3.1	Types of Vehicles (Classifications)	9
3.2	Transport configuration.....	9
3.3	Source of traffic movements	10
3.4	Speed limits	11
4	REVISION HISTORY	12

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

1 INTRODUCTION

This document details the scope for the *Contractor* to complete the Project for SHE-Transmission, hereafter known as the *Employer*.

This document provides a description of the proposed *Works*, design and general requirements and is to be read in conjunction with all contract documentation. It is deemed that the *Contractor* has costed within their submission for all sections contained within this document.

NOTE: Where the term '*Contractor*' is used this can be substituted by the term 'Tenderer'. The term 'Tenderer' shall be used in the Tender process. The term '*Contractor*' shall be used once the contract between Scottish and Southern Electricity Networks and the successful Tenderer has been signed by both parties.

1.1 BACKGROUND

Scottish Hydro Electric Transmission Limited (SHET) are anticipating submitting a section 37 planning application for the connection of the Chleansaid wind farm to the electricity network they operate, the proposal is to construct a new 132kV overhead line, approximately 10km in length supported by trident wooden poles from the wind farm substation to a proposed new substation to the north of Lairg (Dalchork substation).

1.2 PURPOSE

The purpose of this project specific Construction Traffic Management Plan (CTMP) is to provide details of the proposed traffic management of delivery vehicles and other traffic generated during the construction phase of the development to support the section 37 planning application. Once on board the principal contractor will own the CTMP and be able to provide a more robust and accurate estimate of construction-based activities and traffic.

This document proposes measures to demonstrate how SHET plan to avoid and reduce the impact between public and general construction site traffic. General site traffic, deliveries and collections will be planned and managed to minimise the impact of traffic on the surrounding local road network and to minimise the impact on the local community.

The CTMP is a live document that will be reviewed at regular intervals by the principal contractor to reflect progress of the works and any changes in requirements. Any revisions to the document because of changes will be recorded and re-briefed as required.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

2 CONSTRUCTION WORKS

2.1 PROJECT DESCRIPTION

The overall aim of the project is to enable Chleansaid wind farm to connect to SSENs transmission network. Under the Network Operators Licence this connection should be efficient, co-ordinated, and economic, whilst having the least possible impact on the environment and local communities.

Indicative construction activities for Chleansaid wind farm connection comprise of:

- Overhead line installation – This consists of the installation of 10km of 300mm² UPAS and ADSS fibre and 133 number Trident wood H poles and stays from Chleansaid windfarm Substation and terminating at Dalchork substation.
- Substation - Construct a new 132kV circuit breaker bay and 132kV gantry within the Chleansaid windfarm substation and platform (constructed behalf of Windfarm developer, ESB.)

2.2 CONSTRUCTION PROCESS

The construction process for the works will comprise the following key stages:

Indicative Overhead Line Installation activities:

- Establishment of temporary construction compound and welfare,
- Prepare access points from A836 or from Forestry Haul roads or Dalnessie Estate access track (refer to figure1);
- Delivery of timber poles by SSEN haulage contractor to designated storage sites for delivery to pole locations as per programme/pole schedule;
- Installation of Trident wooden “H” poles. Access to pole locations by approved all terrain low ground pressure tracked vehicles;
- Stringing 132kV Conductor and ADSS cables between poles for termination at jointing pits and Chleansaid wind farm and Dalchork substations;
- Removal of stoned up storage/laydown areas.

Details of access track/storage/laydown area will be provided upon design by the principal contractor.

Indicative Substation construction activities:

- Establish main works compound on existing platform constructed by Windfarm developer for their own temporary compound for the windfarm (Fig1)
- Civils works in the construction of concrete foundations for equipment gantries, generator and associated drainage and underground ducting. All works carried out within existing substation constructed by windfarm developer, ESB
- Erection of gantries and equipment

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

- Installation of electrical equipment in SSE Control room and battery room. Building constructed by windfarm developer
- Testing and commissioning

2.3 CONSTRUCTION PHASE PROGRAMME

The project construction phase is anticipated to last for around **15 months**, site set up and OHL work in **2026** with OHL stringing and testing works from **February 2027**. An overview of the construction programme will be provided by the principal contractor when they are on board and programme has been further developed.

2.4 POTENTIAL TRAFFIC IMPACT

It is expected that during the construction phase the volume of traffic impact will be to and from site. This will largely be based upon deliveries including (Indicative deliveries – Principal contractor to confirm).

- Staff and operative vehicles
- Plant deliveries
- Aggregate for track and storage/laydown areas
- Concrete
- Steelwork
- Trackway
- Winches for conductor
- Fuel
- General supplies

Principal contractor liaison meetings will take place to manage deliveries that impact either Client owned locations or other contractor locations. This will include concrete deliveries, steel work, cable drums, crane work and any other small deliveries.

2.5 WORKING HOURS

Construction working will be mainly during daytime only. The working hours during the construction phase of site shall be during daylight hours generally. This will be confirmed when the principal contractor is onboard. Indicative working hours could be as per the table below:

Table 2.1 – Indicative working hours

	01st March to 31st October	01st November to 28th February
Monday to Sunday	07:00-19:00	07:30-17:00

Any out of hours working would need to be agreed in advanced.

Weekend working shall be planned to minimise construction traffic and areas of work shall be restricted to those which have least impact on the local community and general public.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

Due to the geographical location of the project, the principal contractor and their delivery partners may opt to work on a rotational basis, given that most staff will live out with the immediate project location. This will be confirmed when the principal contractor is on board, but for example may be a rota of 10/11 days on and 3/4 days off as this typically offers the most productive working pattern.

Consideration should be given on a local level to manage the construction traffic for:

- I. School bus routes where children are collected, dropped off or are travelling during school terms.
- II. No HGV movements permitted on Sundays or Scottish public holidays.
- III. Passing places of worship on Sundays - typically 30 minutes before and after services. Timings to be confirmed locally.
- IV. During local community events where increased traffic or parking requirements may be reasonably anticipated e.g. Village gala, funeral etc

As can be expected in rural community, there are residential properties spread throughout the local area from small settlements to single isolated houses.

It can also be expected that traffic levels will vary significantly in the local area throughout the year in line with a busy summer 'tourist' season when visiting road users may be unfamiliar with the roads and may stop/start unexpectedly, and the quieter winter period when mainly local traffic, with knowledge of the roads, may travel at faster speeds than anticipated. All site drivers will be advised to be courteous and exercise caution.

2.6 SITE COMPOUND

Details of the site compound(s) will be highlighted by the principal contractor. The site compound will be sited on the made-up platform already constructed. The compound area will provide a safe area for parking away from the public highway as well as temporary storage of materials, plant and equipment. Due to the increased distance of the OHL, there may be a need for a satellite compound along the OHL route to provide a safe working area on the principal contractor. Details of this will be confirmed by the principal contractor once they are engaged.

Segregated vehicle and pedestrian routes should be implemented in the compound and storage area with post and rail or other appropriate fencing used to segregate the walkways and roads. Signage should be implemented to advise vehicles and pedestrians of the control measures in place, including pedestrian crossings and speed limits.

Unloading and loading operations in the storage compound shall be controlled by the yard supervisor with exclusion zones in place around these operations. Use of mechanical aids e.g. telehandlers should be used where possible to minimise working at height operations. The compound shall be segregated into various areas e.g. fuelling area, plant storage area, material storage area, waste skip area. All vehicle movements shall be under the direction of the yard supervisor or banksman.

All delivery drivers to site must receive a delivery drivers' induction and briefing on arrival to site prior to unloading or loading to brief them on the site rules and compound layout. This will be delivered by the yard supervisor.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

Access to the main compound is intended to be from the A836, utilising the upgraded access track as part of the wind farm developer's construction works. Details to be confirmed by principal contractor.

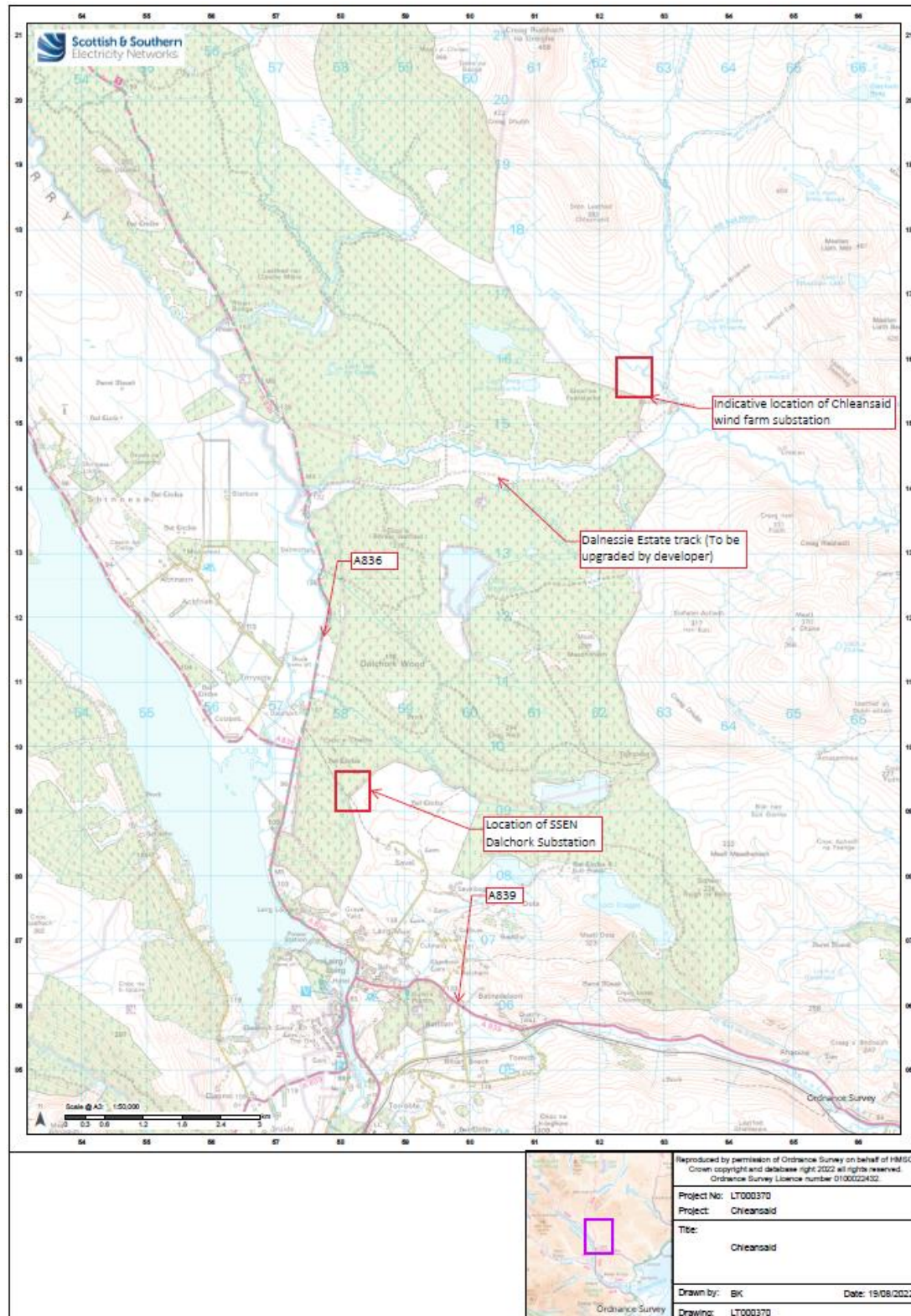
Indicative satellite compound will be constructed by upgrading existing bellmouths off the upgraded access track or the A836 that had previously been used for forestry haulage access and storage. These compounds will have site welfare accommodation along with space for storage of materials. The A836 is under custodianship of the Highland Council.

2.7 ACCESS ROAD NETWORK

The strategic and local road networks will be used for the delivery of this project. The main strategic network road for the majority of North to South vehicular movements will utilise the A9 Inverness to Thurso Road. It is anticipated that the majority if not all construction HGV's will be travelling north from Inverness direction and will access from the A9 will use the following local network routes, see figure1 below:

- A836 – Access from Tain via Bonar Bridge
- A949 – Access from Dornoch
- B9176 (Struie Rd) – from Alness

Figure 1 – Vehicle Routes



LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

3 CONSTRUCTION TRAFFIC

3.1 TYPES OF VEHICLES (CLASSIFICATIONS)

There are many types of vehicles that will be used during the construction phase of the project; some examples and classifications shown in the table 3.1 below.

Table 3.1– Vehicle Classifications

Light Vehicles	Heavy Vehicles (HGVs <32T)
Car	Articulated lorry (rigid/side curtain)
Small Van	Articulated lorry (low loader)
Transit Van	Rigid tipper lorry
4x4 and pickup vehicle	Hiab lorry
Welfare van	Concrete lorry

This is not an exhaustive list but an example of the type of vehicles likely to be employed during the construction phase of the project. This should be confirmed by the principal contractor once onboard.

Abnormal load vehicles will be used during the project for the delivery of the transformer, details of this are unknown with the developer to confirm size and weight of the vehicle that will be used.

3.2 TRANSPORT CONFIGURATION

Table 3.2 – Vehicle Types

Vehicle Type	Description	Activity
1	Tipper Lorries	Used on site for construction and removal of haul roads. Each vehicle will have approximately Circa. 20t of material.
2	Hiab Wagon	Used for transferring materials from storage compounds to where they are required to be incorporated into the works. Could be used to transport materials between different local sites Site compound set up.
3	Articulated Vehicles (normal)	Used to deliver materials to the construction compounds
4	Articulated Vehicles (low loader)	Used to deliver and collect site plant such as excavators, telehandlers (MWEPS) as necessary.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
Revision: 1.0	Classification: Confidential

3.3 SOURCE OF TRAFFIC MOVEMENTS

It is thought the approach that the principal contractor will take when delivering plant/materials to site will be to ensure that road use is minimised as much as possible. Due to the geographical location of the project, the majority of vehicles will come from the Alness and Inverness area, travelling north to site along the A9. This should be presented in more detail by the principal contractor.

Aggregates and concrete etc should be sourced locally, to minimise travel distances. Refer to example table below.

Table 3.3 – Indicative traffic movement schedule

Quarry/Supplier/Location	Vehicle Type	Routes
Caplith Quarry, Alness	HGV (Tipper), Concrete lorry	A9, A836
Ardchronie Quarry, nr Bonar Bridge	HGV (Tipper), Concrete lorry	A836
Dornoch Bridge Quarry	HGC (Tipper), Concrete lorry	A949
Plant & Equipment hire, Inverness	HGV Low loader, vans	A9, A836, B9176
Smal tools & miscellaneous, Inverness	Vans	A9,A836, B9176

It is thought that staff and labour will generally originate locally from the Dornoch, Tain and Alness areas, further afield from Inverness and the surrounding areas, the specific details will be confirmed once the principal contractor is engaged. Generally light vehicle traffic will utilise the local road network predominately the A9,A836 and A949.

Further measures the principal contractor may think about employing to ensure safety to all road users and construction workers could be to set up additional vehicle cleaning measures such as wheel spray/washers on site, so not to be tracking mud from any of the works areas on to the local road network.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
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Figure 2 – Access Routes



3.4 SPEED LIMITS

Speed limits should vary depending upon the access route, substation requirements, main compound and public roads. A maximum 15 mph speed limit should be imposed for all construction traffic on private roads and tracks, with a 5mph speed limit on all trackway. The national speed limit or signed speed limit will apply along public roads, and residents can report any instances of speeding on the public highway. Contact information for the project will be found at the main site compound and satellite compounds, as well as community liaison communications.

In built-up areas such as **Lairg, Bonar Bridge, Ardgay and Edderton**, HGV drivers will be advised to reduce their speed to no more than 20mph.

LT370-CHLS-SOW-CIV-002	Chleansaid WF Connection Construction Traffic Management Plan
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4 REVISION HISTORY

Revision	Overview of Amendment & Text Affected	Previous Document	Revision Author	Date
1.0	Issued for Information		Andrew Campbell	01.12.2023

	Name	Title	Date
Author	Andrew Campbell	Civil Project Engineer	01.12.2023
Checked by	Sharon Howard	Assistant Engineering Manager	01.12.2023
Approved by		Engineering Manager	