Scottish & Southern Electricity Networks

TRANSMISSION

Environmental Impact Assessment (EIA) Report

LT383 Alyth to Tealing Overhead Line (OHL) 400kV Upgrade

November 2024

VOLUME 2: CHAPTER 16 – SCHEDULE OF ENVIRONMENTAL COMMITMENTS

Figures (Volume 3 of this EIA Report)
There are no Figures associated with this chapter.

Appendices (Volume 4 of this EIA Report)
There are no Appendices associated with this chapter.

16. SCHEDULE OF ENVIRONMENTAL COMMITMENTS

16.1 Introduction

16.1.1 The design of the Proposed Development has evolved taking account of environmental considerations throughout the design process in order to avoid or reduce potential environmental impacts where possible.

16.1.2 This chapter provides a summary of the additional environmental mitigation measures that have been described in each environmental topic chapter (Chapters 7 to 13, Volume 2), which will need to be part of the implementation of the Proposed Development. The Principal Contractor will be required to carry forward the mitigation measures outlined within this report.

16.2 Schedule of Environmental Commitments

16.2.1 Table 16-1 below collates the specific mitigation commitments outlined in each environmental topic chapter for ease of reference and for use by those overseeing the relevant Contract Documents.

16.2.2 The Schedule of Environmental Mitigation table includes the following information:

- mitigation reference number (derived from the environmental topic and mitigation item number);
- description of the mitigation measure (including its purpose and location);
- timing of the mitigation measure; and
- specific monitoring, consultation and approval required for the mitigation item.

Table 16-1 Schedule of Environmental Mitigation

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
Standard Mitigation						
SM-1	Throughout Proposed Development	Pre-Construction and Construction	A CEMD will be prepared as part of the Contract Documents. This document details how the Principal Contractor will manage the site in accordance with all commitments and mitigation detailed in this EIA Report, statutory consents and authorisations, and industry best practice and guidance. The CEMD will also reference the Applicant's General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs). The implementation of the CEMP will be managed on-site by a suitably qualified and experienced Environmental Clerk of Works (ECoW), with support from other environmental professionals as required.	To provide an overarching framework for the implementation of construction activities in accordance with the environmental commitments and mitigation measures within this EIA Report. It should be developed in line with best practice guidance and seek to avoid, reduce or mitigate construction impacts on the environment and the surrounding community.	Consultation with the relevant local authorities and other statutory consultees. Approval by SSEN Transmission.	As described under topic specific mitigation.
SM-2	Throughout Proposed Development	Pre-Construction and Construction	SEPA produces a series of Pollution Prevention Guidelines (PPGs) (currently undergoing replacement by Guidance for Pollution Prevention (GPPs)) and the principles of any relevant PPGs/ GPPs should be incorporated into the CEMP. Particular attention should be paid to the following: • PPG 1: General guide to the prevention of pollution (or its replacement GPP when published); • GPP 5: Works and maintenance in or near water; and		None required.	

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			• PPG 6: Working at construction and demolition sites (or its replacement GPP when published).			
SM-3	Throughout Proposed Development	Pre-Construction	An Environmental Clerk of Works (ECoW) should be appointed by the Principal Contractor.	Monitor the implementation of mitigation measures identified in the EIA Report and ensure that activities are carried out in such a manner as to prevent or reduce impacts on the environment.	Approval by SSEN Transmission.	As relevant under specific topic commitments.
SM-4	Throughout Proposed Development	Pre-Construction and Construction	Access to/from residential, business, commercial and agricultural assets will be maintained throughout the construction period by means of signed diversions, where necessary. The estimated duration and location of these diversions will be communicated to affected parties a minimum of two weeks in advance before they are put in place.	To inform stakeholders throughout the construction period and maintain access to/from residential, commercial and industrial and agricultural, assets.	Local residents, businesses and landowners.	None required.
SM-5	Throughout Proposed Development	Pre-Construction and Construction	Existing access arrangements to any other land will not be prevented by the construction works during or post construction, unless alternative access is provided.	To maintain access to/from residential, commercial and agricultural land.	Local landowners where necessary.	None required.
SM-6	Throughout Proposed Development	Construction	The Principal Contractor will ensure that all site workers receive adequate training relevant to their role prior to working on the construction site, including specific environmental project inductions and 'toolbox talks' as required.	To ensure that site workers are aware of best practice construction methods, mitigation measures and how they are implemented.	None required.	None required.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
Ecology						
E-1	Across the LOD but mainly in the upland fringe	Detailed design and construction	Proposed works to be planned so direct loss of important habitats is avoided where possible.	To reduce the extent of temporary loss of important habitats.	ECoW to be consulted where required.	ECoW to check compliance as necessary.
E-2	Auchterhouse Hill SSSI	During detailed design and construction	New temporary stone track to be narrowed as far as possible, minimising the extent of habitat loss within SSSI boundary, and microsited so as to avoid heathland habitat completely. Authorisation will be sought from NatureScot.	To reduce the extent of works within Auchterhouse Hill SSSI boundary and ensure NatureScot authorisation.	NatureScot to be consulted on works along this track, and their authorisation would be required to proceed with works within the SSSI boundary.	ECoW to check works avoid heathland habitat or avoid the SSSI boundary if NatureScot have not given authorisation. Further monitoring may be requested by NatureScot.
E-3	Access to Tower 645	During construction	The proposed trackway access route which passes an oxbow lake off Dean Water would be confined to within the agricultural field, avoiding field margins. The adjacent oxbow lake would only be impacted where required for the wayleave.	To reduce the impact on lowland fen SBL priority habitat and prevent damage to beaver refuges in the area as much as possible.	Where works are within 20 m of a beaver burrow, NatureScot licence to be obtained. Embedded pre-construction surveys would inform the application and development of mitigation.	ECoW to check compliance as necessary. Monitoring will be required as part of licence mitigation, if licence found necessary.
E-4	Tower 645	During construction	Embedded mitigation already stipulates adjustment of the working area around Tower 645 to ensure no vegetation clearance or other works on the banks of Dean Water with only agricultural field and some semi-improved neutral grassland under the tower being removed.	To reduce risks from pollution or other indirect effects on Dean Water (an SBL priority river habitat).	None.	ECoW to check compliance as necessary. Monitoring will be required as part of licence mitigation, if licence found necessary.
E-5	Watercourses across the Site	Detailed design/ construction	Works in proximity to watercourses would avoid the loss of riparian vegetation and be confined to agricultural fields as much as possible. Where riparian vegetation would be affected, a buffer strip at least 2 m wide will be retained between clearance areas and the banks of watercourses (excepting the banks of	To reduce the impact of pollution on watercourses in the unlikely even there is an incident.	All works near watercourses (and locally in them for the few culvert / bridge works) would adhere to pollution control measures and CAR.	ECoW to check compliance as necessary. Unless requested by SEPA, no other monitoring is anticipated.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			Dean Water in the vicinity of Tower 645 which would be avoided, as stated above). Embedded mitigation already includes for adherence to pollution controls for all works.			
E-6	In the vicinity of Towers 645 and 651	Detailed design / construction	A Species Protection Plan would be produced to inform works in proximity to otter refuges in these locations. If a 30m buffer zone cannot be implemented from refuges via detailed design, a NatureScot licence would be necessary.	To reduce the impact of disturbance on otter and comply with legislation.	Where 30 m buffer cannot be achieved, NatureScot licence to be obtained.	ECoW to check compliance as necessary. Monitoring likely to be required as part of licence mitigation, if licence found necessary.
E-7	Where works are in close proximity to badger setts (as per Confidential Figure 8.3 (Volume 3)) including in Pitmedden Wood	Detailed design / construction	A Species Protection Plan would be produced to inform works in proximity to badger setts in this area. If a 30m buffer zone cannot be implemented from setts via detailed design, a NatureScot licence will be necessary, and works would be planned such that actual damage to setts is avoided. For example, where trees in proximity to sett entrances need felled, manual felling would be carried out to prevent damage from heavy machinery, and heavy machinery would maintain as much distance as possible from sett entrances.	To reduce the number of sett closures/ destructions required, minimise disturbance to badgers, and comply with legislation.	Where works are within 30 m of a badger sett, obtain a NatureScot licence. Embedded pre-construction surveys will inform the application and development of mitigation.	ECoW to check compliance as necessary. Monitoring will be required as part of licence mitigation, if licence found necessary.
E-8	All affected semi-mature or mature woodland	Detailed design/ construction	Embedded mitigation includes for pre-construction surveys, which will include checks for dens and dreys by the ECoW in affected woodland/ trees. If dens or dreys are found during pre-construction survey and are liable to be destroyed during tree removal (or disturbed, disturbance distance being 100 / 50 m from active breeding dens / dreys and 30 / 5 m or	To ensure compliance with legislation.	Obtain NatureScot licence if confirmed that red squirrel dreys would be destroyed or disturbed.	ECoW to check compliance as necessary. Monitoring may be required as part of licence mitigation, if licence found necessary.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			adjacent tree for other dens / dreys), then NatureScot licence to be obtained.			
E-9	TBC	TBC	BNG enhancement measures to ensure net gain will be detailed in a BNG report and would be implemented as prescribed.	To comply with national and local biodiversity policies and SSEN requirements for net gain from all projects.	None.	As prescribed in the BNG Report.
E-10	All trees categorised as PRF-M and FAR	Prior to works commencing	Targeted survey to confirm the status of PRF-Ms s which would be subject to felling or lopping such that the feature(s) are lost. PRF inspection survey (or a suitable alternative) would be carried out, and consequent proportionate mitigation implemented. Mitigation relevant to PRF-I trees which would be felled or lopping would also be implemented.	To ensure compliance with relevant wildlife legislation and minimise impacts on roosting bats.	Surveys must be carried out by competent surveyors with an appropriate bat survey licence.	ECoW to check compliance as necessary. Monitoring likely to be required as part of licence mitigation, if licence found necessary.
E-11	Where works are in close proximity to beaver burrows and lodges (as per **Confidential** Figure 7.3b (Volume 3))	Detailed design / construction	A Species Protection Plan would be produced to inform works in proximity to beaver burrows and lodges in this area. If a 20 m buffer zone cannot be implemented from burrows and lodges via detailed design, a NatureScot licence will be necessary, and works would be planned such that actual damage to burrows and lodges is avoided. For example, where trees in proximity to beaver burrows / lodges need felled, manual felling would be carried out to prevent damage from heavy machinery, and heavy machinery would maintain as much distance as possible from refuge entrances.	To reduce the number of burrow and/or lodge closures / destructions required, minimise disturbance to beavers, and comply with legislation.	Where works are within 20 m of a beaver burrow / lodge, obtain a NatureScot licence. Embedded pre-construction surveys will inform the application and development of mitigation.	ECoW to check compliance as necessary. Monitoring will be required as part of licence mitigation, if licence found necessary.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
Ornithology						
No additional mitigation proposed						
Forestry						
No additional mitigation proposed						
Cultural Heritage						
CH-1	Throughout Proposed Development	Construction	Archaeological monitoring to be undertaken during and ground works (i.e. works including, but not limited to, stripping for access tracks, bell-mouths, and tower foundation upgrades) in areas where archaeological remains have been recorded.	Identify, excavate, and record previously recorded archaeological features.	Works to be agreed pre-construction with the relevant Local Planning Authority Archaeological Advisor and approved via a WSI.	Expected that day-to day works on site will be under the supervision of an Archaeological Clerk of Works. Periodic site monitoring visits from Local Planning Authority Archaeological Advisor likely during construction. To be agreed as part of the WSI.
CH-2	Throughout Proposed Development	Construction	Archaeological monitoring to be undertaken during and ground works (i.e. works including, but not limited to, stripping for access tracks, bell-mouths, and tower foundation upgrades) in areas in close proximity to previously recorded archaeological remains, or where the archaeological potential is considered to be higher due to aspects such as limited ground disturbance.	Identify, excavate, and record previously unrecorded archaeological features, as well as above ground features such as drystone walls.	Works to be agreed pre-construction with the relevant Local Planning Authority Archaeological Advisor and approved via a WSI.	Expected that day-to day works on site will be under the supervision of an Archaeological Clerk of Works. Periodic site monitoring visits from Local Planning Authority Archaeological Advisor likely during construction. To be agreed as part of the WSI.
CH-3	Based on current design access tracks to Towers:	Construction	New temporary access to be restricted in width to avoid removal of historic landscape features such as dry-stone walls.	Limit large scale widening of existing tracks and new temporary access tracks to avoid loss of	Works to be agreed pre-construction with the relevant Local Planning Authority	Expected that day-to-day works on site will be under the supervision of an Archaeological Clerk of

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
	Temporary Access Tracks to Towers 668-679.			historic landscape features/ elements.	Archaeological Advisor and approved via a WSI.	Works. Periodic site monitoring visits from Local Planning Authority Archaeological Advisor likely during construction. To be agreed as part of the WSI.
CH-4	All scheduled monuments where the Development will result in works within the same field including Cardean Roman Fort (SM4337).	Construction	Temporary fencing to be installed around scheduled monuments to avoid accidental damage where construction works are undertaken in the same field as a scheduled monument. Training should be provided to construction team, including regular toolbox talks, to make them aware of the limits of the scheduled monument, as well as the legal protection associated with the site. Ground protection should be used to avoid impacts, and temporary barriers (such as Heras Fencing) should be provided to prevent accidental damage.	Avoid accidental physical impacts on scheduled monuments.	Works to be agreed pre-construction with Historic Environment Scotland as well as relevant Local Planning Authority Archaeological Advisor, and approved via Scheduled Monument Consent, with supporting documents likely to include a WSI. This is likely to include agreeing buffers.	Expected that day-to-day works on site will be under the supervision of an Archaeological Clerk of Works. Periodic site monitoring visits may be required by HES and the Local Planning Authority Archaeological Advisor during construction. To be agreed as part of the WSI.
CH-5	Throughout Proposed Development	Construction	Any sections of historic landscape features removed (i.e. dry-stone walls, boundary dykes etc) to be reinstated/restored once construction has been completed. In areas where the need for a permanent access means reinstatement/restoration is not possible, exposed ends of walls and similar features should be 'made good' by a qualified individual to avoid further loss of the features through erosion.	Avoid/minimise impacts on historic landscape features such as dry-stone walls and boundary dykes.	Works to be agreed pre-construction with the relevant Local Planning Authority Archaeological Advisor and approved via a WSI.	Expected that day-to-day works on site will be under the supervision of an Archaeological Clerk of Works. Periodic site monitoring visits from Local Planning Authority Archaeological Advisor likely during construction. To be agreed as part of the WSI.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
CH-6	All scheduled monuments where the Development will result in works within the same field including Cardean Roman Fort (SM4337).	Construction	Scheduled Monument Consent required.	Legal requirement for working within scheduled areas.	All works to be agreed pre-construction with Historic Environment Scotland (HES) as well as relevant Local Planning Authority Archaeological Advisor, and approved via Scheduled Monument Consent, with supporting documents likely to include a WSI. This is likely to include agreeing buffers.	Expected that day-to-day works on site will be under the supervision of an f Archaeological Clerk of Works. Periodic site monitoring visits may be required by HES and the Local Planning Authority Archaeological Advisor during construction. To be agreed as part of the WSI.
CH-7	Throughout Proposed Development	Construction	Pre and post-condition surveys to be undertaken in fields where construction works are being undertaken.	Avoid/minimise impacts on previously recorded heritage assets that are not expected to be disturbed (i.e. construction works not expected to break ground).	Works to be agreed pre-construction with the relevant Local Planning Authority Archaeological Advisor and approved via a WSI.	Expected that day-to-day works on site will be under the supervision of an Archaeological Clerk of Works. Periodic site monitoring visits from Local Planning Authority Archaeological Advisor likely during construction. To be agreed as part of the WSI.
Traffic and Transport						
T-1	Study area roads	Pre-commencement and Construction	Proposed access points will have road geometry to accommodate Proposed Development traffic safely and efficiently. This will include access junction layouts (bell mouths) suitable for HGV traffic. Temporary traffic management will operate at each access point to control the movement of Proposed Development traffic. This will include control measures to preclude development traffic standing on public roads in the vicinity of	Reduce magnitude of change / increase in traffic on study area roads.	Detailed CTMP to be approved by relevant roads authorities.	Reporting mechanism for construction traffic not adhering to CTMP routes or time restrictions.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			access points, and measures to control the safe release of development traffic from access points onto public roads.			
T-2	Study area roads	Construction	A CTMP will operate throughout the duration of the construction programme. Part K of Appendix 5.1 (Volume 4) contains a Framework CTMP. A detailed CTMP is expected to be Conditioned and provided once a Principal Contractor is appointed. The detailed CTMP would encompass: • site entry/ exit arrangements from public roads; • traffic routing plans – defining the routes to be used by HGV traffic cognisant of sensitive receptors, and width, height, or weight restrictions on the public road network; • construction traffic hours and delivery times, including timing restrictions if required; • measures to protect public roads and public road users (e.g. wheel wash facilities); • measures for monitoring the CTMP to ensure compliance and appropriate actions in the event of non-compliance; and • mechanism for reporting and responding to traffic management issues arising during the works (including concerns raised from the public) including a joint	Control movement of construction traffic to/ from public roads in safe and efficient manner.	Designs to be approved by relevant roads authorities.	Potential requirement for traffic management staff to manually control development traffic at access points.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			consultation approach with relevant road authorities.			
Hydrology, Hydrogeology and Soils						
WE-1	Throughout Proposed Development	Prior to and during construction	The Water Environment (Controlled Activities) Regulations 2011 (CAR) (Scottish Government, 2011b) require licences to be sought for design and construction activities affecting watercourses, including engineering works (culverts and bridges) and discharges (outfalls, attenuation and treatment). The Principal Contractor will be required to provide a detailed Construction Method Statement which will include proposed mitigation measures for specific activities including any requirements identified through the pre-CAR consultation process.	Ensure compliance with regulatory requirements for the protection and effective management of the water environment.	It is intended that the appointed Principal Contractor be responsible for submitting applications and securing CAR authorisation based on their detailed design. The CAR application and surface water quality monitoring plan may require approval from SEPA.	No.
WE-2	Throughout Proposed Development	Prior to and during construction	A CEMP and Water Management Plan (WMP) should be prepared and include, but may not be limited to: • avoidance of wet weather working where practical, especially site clearance, earthworks and works to water features; • appropriate separate storage of topsoil/subsoil and materials, and at least 20 m from water features on flat ground; • any earth bund/ stockpile to be present for longer than two weeks will be either seeded, covered using geotextiles, or other pressures provided to ensure it is not a source of excessive fine sediment in run-off to water features;	To protect the water environment from uncontrolled construction runoff	No.	No.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			• the implementation of a temporary drainage system and other measures to manage pollution risk during construction; • any dewatering of excavations will include measures, where necessary, to filter the water prior to discharge to a watercourse or ground (there shall be no discharge of any construction site run-off to existing ponds); • the control of mud deposits at entry and exits to the site using wheel washing facilities and/ or road sweepers operating during earthworks or other times as considered necessary; and • any works in the channels of smaller watercourses will be undertaken in a dry working environment, with flow temporarily over-pumped or flumed or isolated from the working area using sand/ pea gravel bags or other similar and inert barrier.			
WE-3	Throughout Proposed Development	Prior to and during construction	A CEMP and Water Management Plan (WMP) should be prepared and include, but may not be limited to: • measures to minimise the risk and potential effects of spillage incidents shall typically include; storage of oils and diesel, along with the general maintenance and refuelling of plant, shall be restricted to impermeable bunded areas with a minimum 110% storage capacity and away from or where spillages could reach a surface water;	To avoid spillages and reduce impacts on the water environment in relation to refuelling.	No.	No.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			• storage of fuel and chemicals would be in accordance with GPP 8: Safe storage and disposal of used oils; and • re-fuelling will be undertaken in designated areas within main compounds or satellite compounds. It is possible that refuelling of mobile plant may be required by mobile fuel bowser. This will not be undertaken within 20 m of a water feature, and only on flat land and with a drip tray/ plant nappy.			
WE-4	Throughout Proposed Development	Detailed Design and During Construction	If discharging groundwater to a nearby watercourse, the rate of discharge will need to be agreed with the relevant authority to ensure that there is no unacceptable increase in flood risk or risk of scour. Any discharge will need to be undertaken with the agreement of the relevant statutory regulator and will need to comply with the pollution prevention requirements set out in the future CEMP. A Construction Groundwater Control Strategy will need to be prepared by the Princpal Contractor at the detailed design stage. Furthermore, best practice mitigation measures will be followed to avoid and/or minimise impact on groundwater and will be included in the final CEMP.	To minimise the impact of any groundwater control activities during construction on the water receptors.	Relevant Authority.	
WE-5	Affected works	Prior to and during construction	The water quality monitoring programme will be developed by the Principal Contractor in consultation with SEPA and other relevant stakeholders during the process of obtaining CAR licences for works affecting, or for temporary discharges to, the water features	To ensure that should pollution occur it is identified as quickly as possible and appropriate action is taken in line with the Emergency Response Plan.	No.	Minimum six to twelve monthly visits.

Mitigation Item	Location	Timing of Measure	Description	Mitigation Purpose/ Objective	Specific Consultation or Approval Required	Potential Monitoring Requirements
			and watercourses in and around the Proposed Development. Water quality monitoring will be required of all potentially affected water features and may include daily visual and olfactory observations or after heavy or prolonged rainfall, in situ monitoring using a calibrated hand-held probe, and potentially samples on a regular or ad hoc basis for analysis at an accredited laboratory.			
WE-6	New culvert locations	Detailed Design and During Construction	Water crossings should be designed to accommodate the 1 in 200-year event plus climate change and other infrastructure.	Reduce flood risk.	No.	No.
Noise and Vibration						
NV-1	Proposed Development	By Design, prior to construction	Attaching dampers to conductors at both ends near tower structure.	To minimise aeolian noise caused by incident wind.	No.	Aeolian noise can be monitored continuously in a long-term survey as this phenomenon is infrequent and difficult to predict.
NV-2	Proposed Development	During construction	Conducting noisy activities in daytime hours and creating a Construction Noise Management Plan (CNMP).	To reduce noise impact in evenings and weekends.	Principal Contractor will update schedule	Compliance during evening hours to ensure 55 dB limit is met.
NV-3	Proposed Development	During Operation	Aging the conductor by method of beadblasting or applying hydrophilic coating.	To reduce the noise to 'as low as reasonably practicable' (ALARP).	No.	Compliance measurements is recommended to ensure effective noise reduction from unmitigated source levels.