15. Other Environmental Matters

15 Other Environmental Matters

15.1.1 This section of the EIA Report discusses other environmental topics which have either been scoped out of this EIA Report entirely, or where it was agreed at Scoping stage that a full EIA Report technical chapter would not be provided. The below section includes a description of the potential effects and justification for the matter being scoped out of the EIA Report.

15.2 Major Accidents and Disasters

15.2.1 The Institute of Sustainability and Environmental Professionals (ISEP) (formerly named the Institute of Environmental Management and Assessment (IEMA)) defines major accidents as "events that threaten immediate or delayed serious environmental effects to human health, welfare and/or the environment and require the use of resources beyond those of the client or its appointed representatives to manage. Whilst malicious intent is not accidental, the outcome (e.g. train derailment) may be the same and therefore many mitigation measures will apply to both deliberate and accidental events." And disasters as "may be a natural hazard (e.g. earthquake) or a man-made/external hazard (e.g. act of terrorism) with the potential to cause an event or situation that meets the definition of a major accident."

15.2.2 Consideration has been given to the vulnerability of the Project to a major accident or disaster, as well as the potential for the Project to cause a major accident, during its construction and operation. With the exception of flood risk, which is considered within the separate Flood Risk Assessments (Appendix 9.4), the Project is not located in an area in which natural disasters or extreme weather events such as earthquakes or wildfires are likely to impact it. The Project includes appropriate security measures where appropriate including security fencing, lighting and cameras to reduce the risk of interference. As a result the Project is not considered to be vulnerable to major accidents or disasters and unlikely to result in significant environmental effects. The Project is designed in accordance with the relevant standards and guidelines to ensure it can be safely operated and is unlikely to be a cause of a major accident. While the Project site intersects with multiple major accident hazard pipelines, as requested by the Health and Safety Executive pipeline operators have been consulted to address protective measures. This has been detailed in Table 15-1 below.

Peat Landslide Hazard Risk

Key Types of Peat Failure

15.2.4 ~~Understanding the mech~~anics of peat landslides is essential for hazard mitigation. The two most common forms of peat failure are:

- **Peat Slides**: Relatively shallow, localised slab-like failures where displaced peat masses move downslope while exposing the underlying substrate. These generally occur on steeper slopes (typically > 5 degrees)

- **Bog Bursts**: Large-scale, liquefaction-type failures where a mass of peat loses its structural integrity, flowing downslope and spreading out. These retrogress upslope and typically occur on flatter terrain (2 – 5 degrees).

Primary Causes and Triggers

15.2.5 Peat instability is typically driven by an imbalance between gravitational forces and the shear strength of the peat. Common triggers include:

- **Extreme Rainfall**: Intense, prolonged precipitation increases pore water pressure, significantly reducing the shear strength of the peat.
- **Human Modifications**: Infrastructure development (such as wind farms or access roads), inadequate drainage, tipping of excavated material, and forestry operations can disrupt the hydrological balance and destabilise slopes.
- **Climate Change**: Increased frequency of heavy storms and extreme weather events is linked to a higher incidence of multiple peat landslide events.

Mitigation and Risk Assessment

- Site Investigations: Ground investigations, including probing for peat depth and shear strength testing, help map the stability of the terrain.
- Avoidance & Design: Infrastructure (such as tower foundations or temporary access roads) is specifically sited/routed to avoid deep peat deposits and areas with high landslide susceptibility. Where deeper peat is present temporary access roads would be floated to avoid excavating into the peat as much as possible.
- Best Practice Guidance: Frameworks like the Scottish Government Peat Landslide Hazard and Risk Assessments Guide establish the standard methodology for mitigating risks to as low as reasonably practicable (ALARP).

15.2.6 It is currently assumed that a PLHRA will be required as a part of the Project, however, this will be determined following the completion of the peat probing surveys currently being undertaken at the time of writing. Following completion of the probing surveys if a PHLRA is required one will be completed and submitted as an addendum to this EIA Report and Planning application.

15.2.7 The potential effects arising from major accidents or disasters for the Project arise from: power cuts and electricity outages during operation; fire, collapse, explosion and falling ice; peat landslide risk, flooding and pollution of the water environment during construction (covered in Chapter 9 Water Environment & Chapter 10 Ground conditions). However, due to the nature and scale of the development, as well as embedded mitigation, it is considered that no significant effects are likely to occur because of major accidents or disasters during construction and operation as a result of the Project. Therefore, significant effects arising from the vulnerability of the Project to major accidents and/or disasters has been scoped out of the EIA.

Consultation

15.2.8 Any issues related to Major Accidents and Disasters that were raised in the Scoping Opinion are summarised below in Table 15-1.

Table 15-1 Scoping Opinion comments relating to Major Accidents and Disasters

Consultee	Summary of Response	Response
Health and Safety Executive	HSE states that the development does not involve hazardous substances in quantities that would pose major industrial accident risks and is not located within safeguarding zones for explosives or dangerous goods. However, the development site intersects with multiple major accident hazard pipelines, raising potential safety concerns during construction and operation. The HSE recommends consulting pipeline operators to address restricted areas, pipeline integrity, and protective measures. While the development does not necessitate consultation with the HSE Land Use Planning Team, the EIA should address any potential risks or consequences related to nearby major accident hazard establishments.	Pipeline operators have been consulted with agreement reached with Scottish Gas Networks and National Gas Transmission to undertake an Electrical Impact Assessment which is to be reported separately in direct consultation with Scottish Gas Network and National Gas Transmission. No further potential risks from nearby major accident hazard establishments have been identified since the scoping report.
Scottish Gas Network	SGN confirmed the presence of High Pressure Gas Transmission Pipeline in the vicinity of the Project. The building proximity distance for high pressure gas pipeline E05 is 15 metres, in accordance with the recommendations of The Institution of Gas Engineers document TD/1 Edition 5. SGN formally object until a detailed consultation has taken place, as the proposed route crosses many different pipelines multiple times. SGN state a site meeting is required with them to identify pipeline locations and to discuss possible pipeline safety measures. SGN have attached their mains records of the area for guidance. Service pipes, valve siphones, stub connections etc are not shown as well as other GTs, private pipes are not included. SGN provides their general conditions and contact details. SGN withdrew their objection to the project as they have been consulted with by the developer, who have agreed to	The Applicant has undertaken consultation regarding the pipeline consultation zone directly with SGN and National Gas Transmission (NGT). In order to assess the impact of the proposed New Build Overhead Line on NGT's pipelines an Electrical Impact Assessment will be carried out in accordance with NGT methodology. The results of the Electrical Impact Assessment will be presented to SGN and NGT in consultation

	consult SGN throughout the process. Further consultation may be required if the extent or design of the project changes. Excavations, stockpiling of material, vehicles crossing over the route of the pipeline, changes in ground levels, drilling, piling and the siting of temporary structures, cabins and containers are all activities that can have a negative impact on the pipeline.	
National Gas Transmission	National Gas Transmission (NGT) operates a high-pressure gas pipeline (FM10 Limrerigg to Glenmavis) crossing the Project site, which could be affected by AC/DC interference from the installation. There is a land easement prohibiting any development, construction or landscaping within its boundaries without formal written approval from NGT. Electrical infrastructure near the pipeline must comply with specific interference standards, allowing installations adjacent to but never within the easement. NGT also state that utility crossings are restricted and require a Deed of Consent before any installation/construction within the pipeline easement is permitted.. The developer must engage early with NGT to agree on interference mitigation, security, access, and construction methods prior to starting works. The proposed work location falls within the NGT High Risk zone, meaning a project cannot proceed without further assessment from their Asset Protection team. It is required to submit plans and a description to NGT for review and to consult the HSE Land Use Planning (LUP) App where necessary, which may be a mandatory requirement for some works. NGT's initial consultation response to the Scoping Report stated development must not proceed without further assessment from NGT.	The Applicant has undertaken consultation regarding the pipeline consultation zone directly with SGN and NGT. In order to assess the impact of the New Build Overhead Line on NGT's pipelines an Electrical Impact Assessment will be carried out in accordance with NGT methodology. The results of which will be presented to SGN and NGT in further consultation The Applicant confirmed an Electrical Impact Assessment is being undertaken, which shall be forwarded to National Gas Transmission when available. Thereafter, NGT confirmed in writing to ECU they have 'no objection' to the project subject to a consent condition.
Office for Nuclear Regulation	The Office for Nuclear Regulation (ONR) has no comments on the planning application because the development is outside the consultation zones of any GB nuclear sites	No actions required.

15.3 Human Health

15.3.1 The Project has been sited away from residential properties as far as possible therefore reducing potential impacts on people including human health from the construction and operation of the Project.

15.3.2 Potential impacts on human health as a result from construction activities, are limited to short term effects from noise and dust. The effects from noise during construction and operation is addressed within Chapter 12 Noise and Vibration. The effects arising from dust during construction are considered in section 15.4.

15.3.3 Potential impacts on human health during the operation of the Project are limited to electric and magnetic fields (EMF) and noise (as detailed in paragraph 15.3.2 noise is addressed in Chapter 12 Noise and Vibration).

Electric and Magnetic Fields

15.3.4 Electric and magnetic fields (EMF) are present wherever electricity is used. EMF are associated with all electricity transmission infrastructure. Health protection guidelines exist for both public and occupational exposure to time-varying electric, magnetic and electromagnetic fields with a frequency of up to 300GHz.

15.3.5 The standalone EMF report that accompanies this document notes in para.3.3.1 that '*The proposed overhead line modifications would be assessed as having a significant effect if noncompliance with the EMF exposure limits was demonstrated*". To ensure compliance, the Triple Bundle Angus conductor will require an additional 20cm of clearance to ensure that this limit is not breached, therefore the clearance distance from the conductors will require to be increased to 7.7m. This will be addressed in the construction phase with the minimum clearance of the triple bundle conductor being set at 7.7m.

15.3.6 For clarity, the Triple Angus conductor will be used on XR Route and XX019B to Newarthill. Twin Matthew Gap conductors will be used from the existing Easterhouse to XX091, existing ZG Route and the new WB Route.

15.3.7 All new infrastructure associated with the Project would comply with the UK Government's guidelines set out within the voluntary Code of Practice, set out within 'Power Lines: Demonstrating compliance with EMF public exposure guidelines' (herein referred to as the 'Code of Practice'). The Code of Practice sets out what is required to demonstrate compliance with conservative exposure levels in respect of sources of EMFs within electricity systems, including high-voltage overhead lines.

15.3.8 The Applicant will ensure all electricity transmission infrastructure which they construct and operate complies with the Code of Practice. The requirements of the Code of Practice will be adhered to through the Project design. Therefore, it is not considered that the Project would give rise to any significant effects resulting from electric or magnetic field impacts. Effects arising from EMF have therefore been scoped out of this EIA Report.

15.3.9 Due to the design of the equipment that substations contain, they do not produce a significant external electric field. However, they do generate a magnetic field. Magnetic field levels at the boundary of a substation are typically at a level of 1 or 2 μT, but this decreases very quickly as you move away and for this reason, effects from substations have been scoped out of the EMF assessment.

15.3.10 A Standalone EMF report accompanies this EIA Report (Volume 3, Appendix 15.1) and subject to the design mitigation referenced above, there will be no significant EMF impacts.

Summary

15.3.11 The health effects on water quality, land quality, noise and vibration, peat landside risk are covered in Volume 1, Chapter 9 Water Environment, Chapter 10 Ground Conditions, Peat management plans (Standalone reports) and Chapter 12 Noise and Vibration and any health effects relating to Transport modes, access, and connections, Education and training, and Employment and income are covered by Chapter 13 Socioeconomics and Recreation. In conclusion, any activities could otherwise affect human health are addressed in other topics.

15.3.12 As such the topic of Human Health has been scoped out and no human health impact assessment is proposed as part of this EIA Report.

15.4 Air Quality

15.4.1 The Project is not located in or close to an Air Quality Management Area and air quality is generally considered to be good. The nature of the Project is such that it does not result in emissions to air that are likely to reduce air quality. It will also not lead to any significant heat emissions. The Project has limited potential to impact air quality. There is a potential to some localised and temporary construction related impacts associated with dust, construction plant and traffic exhaust emissions, and nuisance. However, these would be short-term, intermittent and unlikely to give rise to potentially significant effects and will be mitigated through good construction practices as set out in Chapter 17 Schedule of Mitigation of this EIA Report.

15.4.2 Operational effects on air quality are unlikely because the overhead lines and substations have limited emissions associated with them. Operational activities would be limited to maintenance which would be infrequent, so any traffic during operation would generate negligible traffic and emissions as such operational effects have been scoped out.

15.4.3 As such, local air quality is scoped out of the EIA and no assessment of air quality has been undertaken as part of this EIA Report.

15.5 Climate Change

Contribution to Climate Change

15.5.1 The Project is not considered likely to result in significant effects on climate change.

15.5.2 Construction of the Project is likely to contribute to GHG emissions from vehicles during construction and the carbon footprint (embodied carbon) of the materials required to build it, however, in the context of UK carbon budgets[1] and the long term, the Project will provide increased capacity on the electricity network and facilitate the connection of renewable energy sources resulting in a long-term reduction in GHG emissions, which will support the longer term carbon budget reduction plans.

15.5.3 Where there is peatland or carbon rich soils are present, appropriate construction measures will be utilised to ensure that no loss of peatland or carbon rich soils occurs and that all

[1] https://assets.publishing.service.gov.uk/media/6901d0c2a6048928d3fc2b55/carbon-budget-and-growth-delivery-plan-report.pdf

extracted materials are reused in an appropriate manner. Further details of reuse and methods of working is provided in Chapters 4 & 10 (Volume 2), the Construction Environmental Management Plan (Volume 3) and the Peat Management plan (standalone documents with the planning application).

15.5.4 Operation of the Project is unlikely to contribute to GHG emissions or impact negatively upon wider climate change and therefore will not have any significant effects. For the duration of the Project's operational lifespan there will be limited GHG emitted the exception being for maintenance purposes, however these will be negligible.

15.5.5 By helping to increase the capacity of the electricity network and enable the increased connection of renewable energy, the Project is intended to help to mitigate the effects of climate change.

15.5.6 As a result, the Project is not considered to result in significant effects on GHG emissions and therefore it is proposed to scope this out of the EIA.

15.5.7 No significant effects on climate change are likely as a result of the Project and as such, this issue is scoped out of the EIA, and no assessment of climate change has been completed as part of this EIA Report.

Project Vulnerability to Climate Change

15.5.8 The Project is not considered likely to be significantly affected by Climate Change. The Project has been designed in consideration of SPEN's Climate Resilience Strategy to ensure the Project has a low risk of vulnerability to climate change induced hazards such a flooding, extreme temperatures and wildfire.

15.5.9 Flood Risk was assessed as an inherent part of the Water Environment chapter. The supporting Flood Risk Assessments (Volume 3, Appendix 9.4) considered, where appropriate, estimates of the impacts of climate change on flood risk. It was concluded in Volume 2, Chapter 9 that there are no likely significant effects on the Project as a result of flood risk.

Materials and Waste

15.5.10 The Project is not considered likely to result in significant effects on Materials and Waste.

15.5.11 Materials will be generated, and will require management, at a number of construction stages including excavation of materials for construction of towers and substation foundations, construction of ancillary infrastructure and occupation of temporary construction premises.

15.5.12 The Principal Contractor will be required to prepare a Site Waste Management Plan to ensure best practice principles are applied to reduce, re-use or recycle all materials as part of the CEMP. Measures to reduce possible environmental effects associated with the storage and transportation of wastes will include:

- the careful location of stockpiles and other storage areas;
- the use of good practice in the design of waste storage areas and the use of suitable waste containers;
- the use of sheeting, screening, and damping where appropriate and practicable;
- the control and treatment of runoff from soil and waste soil stockpiles;

- minimising storage periods;
- minimising haulage distances; and
- the sheeting of vehicles.

15.5.13 All materials will be identified, classified, quantified and, where practicable, appropriately segregated. Any materials that cannot be reused will be disposed of according to relevant waste management legislation which will serve to address a number of possible environmental effects. This includes:

- the Duty of Care imposed by Section 34 of the Environmental Protection Act 1990; and
- the Waste Management Licensing (Scotland) Regulations 2011 (as amended), particularly provisions relating to registered exemptions from waste management licensing.

15.5.14 If materials are required to be removed from site, these will be handled in accordance with relevant waste and environmental regulations. Waste will be transferred using a registered waste carrier to a licensed waste disposal site or recycling centre.

15.5.15 With best practice application of responsible sourcing methods, the waste hierarchy, implementation of Site Waste Management Plans and inclusion of targets that support the delivery of the Zero Waste Plan targets, the Project is not considered to result in significant effects on Materials and Waste and therefore it is proposed to scope this out of the EIA