



Scottish & Southern
Electricity Networks

Powering our
community

VISTA: An assessment of the visual impact of Scottish transmission assets

Policy annex

Background

1.1 Scottish Hydro Electric Transmission Plc (“SHE Transmission”) is promoting VISTA (Visual Impact of Scottish Transmission Assets), an initiative instigated to assess the impact of existing electricity infrastructure in the ownership of SHE Transmission on National Parks and National Scenic Areas (NSAs) in Scotland, and where possible, to identify and develop appropriate mitigation. To play a part in conserving Scotland’s designated landscapes, SHE Transmission hopes to access a proportion of a £500m fund that is administered by the electricity industry regulator Ofgem.

- 1.2 This annex to the policy document provides further detail on the ways in which the policy will be applied and decisions will be made under VISTA.
- 1.3 In order to deliver the maximum benefit, it is necessary to identify the transmission infrastructure with the greatest impacts on nationally protected landscapes, but also with greatest potential for mitigation. A number of stages are required to reach this goal, from initial identification of priorities through to implementation of projects. The diagram below sets out the four key stages of the project.



Stage 1 Identify priorities

Identification of infrastructure

- 1.4 SHE Transmission owns and operates the electricity transmission network in the north of Scotland. Transmission is defined in Scotland as overhead power lines and substations carrying voltages of 132kV or over. This network comprises almost 5,300 km of electricity lines and cables, and serves around 70% of the land mass of Scotland.
- 1.5 The Ofgem funding is available to mitigate the impacts of transmission infrastructure on nationally protected landscapes. In Scotland, nationally protected landscapes comprise two National Parks and 46 National Scenic Areas (NSA). Transmission infrastructure which is within, or in some cases just outside, nationally designated landscapes, may affect the special qualities of the designation and may be considered as eligible for mitigation as part of this project.
- 1.6 Both National Parks and the majority of the NSAs fall within SHE Transmission’s licence area. The majority of SHE Transmission’s existing infrastructure is located outside these designated areas, but there are sections of the network which are within or immediately adjacent to National Parks and NSAs.

Screening of infrastructure

- 1.7 Any project that has been consented through Section 37 of the Electricity Act 1989, since the implementation of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000, will not form part of the VISTA initiative. These projects have undergone rigorous landscape and visual impact assessment, with mitigation measures implemented where necessary. It is not considered that further mitigation of these projects would present the best use of the Ofgem funding.
- 1.8 In addition, transmission assets within designated areas that are subject to planned major upgrade works, which would potentially lead to the removal or replacement of assets

are also excluded from the initiative. The uncertainty surrounding the future of these assets means that effective mitigation cannot be adequately planned and implemented; however, if scheduled or planned work does not go ahead, the eligibility of these assets areas may be reconsidered. Assets which are subject to ongoing or planned refurbishment works, such as replacement of conductors, will be included within the scope of VISTA where these works are unlikely to alter the impact of the assets on designated landscapes.

1.9 Assets and designated areas ruled out through the screening process were:

- Asset: Cairngorms National Park – Beaully-Denny line (Ssection 37 consent)
- Designated area: Cuillin Hills NSA, Dornoch Firth NSA, Knoydart NSA

Initial landscape and visual assessment

1.10 Following definition of the project scope, the landscape and visual impacts of the selected transmission assets will be assessed. This process is designed to identify where impacts are greatest, and therefore where mitigation projects are likely to be most beneficial. Mitigation projects under the VISTA initiative will be targeted where they will give rise to maximum enhancement of the landscape and views within a designated area. While there are financial and technical dimensions to this targeting, the purpose of the landscape and visual assessment is to understand where the most substantial impacts occur as a result of SHE Transmission infrastructure.

1.11 The key steps to be undertaken for each designated area are:

- Understanding the special qualities of the designated area;
- Identification of infrastructure and definition of sections related to landscape character;
- Consideration of likely landscape and visual impacts, including landscape fit and sensitive visual receptors; and
- Identification of potential mitigation and likely level of benefit.

1.12 Each overhead line is divided into discrete sections to facilitate the assessment, which employs desk study and field work to understand the potential for landscape and visual impacts, and to identify opportunities for mitigation.

- The approach taken has been described as a 'reverse landscape and visual impact assessment (rLVIA)', since unlike a standard LVIA it considers the impact of development which is already present in the landscape. The approach will be guided by the Guidelines for Landscape and Visual Impact Assessment (3rd Edition, 2013), and by the Holford Rules that guide the routing of overhead power lines.

Identify most important impacts

1.13 The results of the rLVIA are used to broadly rank the overhead lines and substations in terms of the relative level of impacts observed. Higher priority is assigned to those assets which are seen to be having the most substantial impacts on visual amenity and on the landscapes of the designated areas. A detailed scoring system will not be used, but overhead line sections will be assigned lower, medium or higher priority depending upon the level of impact observed.

Consultation

1.14 At this stage, initial consultation will be undertaken to gather feedback from stakeholders on:

- Scope of the initiative;
- Initial findings of the impact assessment; and
- Key areas and/or assets which are seen as having substantial impacts on the designated landscapes.

Stage 2 Define the projects

Identify mitigation options

1.15 Although the initial focus is on the identification of priority areas, it will also be necessary to understand the potential for mitigation. There are many locations where substantial impacts are observed but with little option for enhancement, due to the nature of the terrain, landscape or access, for example.

1.16 The desk study and field work provides opportunity to consider mitigation across all of the transmission assets to be looked at. More importantly, consultation with local stakeholders provides a key means for identifying potential mitigation measures. Meetings with local interest groups, and local representatives of national bodies, will be held to gather views on:

- Where the infrastructure should be looked at, and why?
- What mitigation may be appropriate, successful and represent 'best value'?
- Who will benefit from proposed mitigation?
- Are there other projects in the area that could complement the VISTA initiative?

The consultation process is outlined from 1.35 36 onwards and includes a list of stakeholder that SHE Transmission intends to engage with as part of the consultation process.

1.17 Stakeholders will be able to suggest their preference to where mitigation should be targeted in areas identified as having a significant visual impact and will be encouraged to suggest what they view as potentially appropriate mitigation for those areas. SHE Transmission will develop the initiative through small-group sessions with locally knowledgeable stakeholders, aiming to identify diverse options for mitigation in each designated landscape.

Appraisal of options and potential benefits

1.18 The likelihood of successful mitigation needs to be balanced against the benefit that would be gained. For example, it may be feasible to underground a given section of overhead line, but if the current impacts of this line are not especially problematic, and the change would be seen by few receptors, then the benefits of this mitigation would be limited.

1.19 Full cost-benefit analysis will not be undertaken at this stage, but a high level review will consider the assessed landscape and visual impacts of the assets and the relative likely cost of the proposed mitigation. This review will be undertaken by SHE Transmission teams, specialising in; engineering, project development, outage planning, asset management, and land management. It will also be necessary to consider, at a basic level, the potential for adverse impacts on other environmental receptors including habitats and cultural heritage. Those projects that are unlikely to deliver a net benefit will not be taken forward.

Selection of infrastructure and mitigation proposals

1.20 Outline information will be developed on a selected 'long list' of mitigation projects. To be included on the long list, a project will need to:

- Deliver a benefit to the visual amenity and/or landscape of the National Park or NSA that the asset currently affects;
- Result in no likely additional major long-term adverse effects on other receptors; and
- Be technically feasible, based on an initial view from SHE Transmission engineers.

1.21 The projects will be grouped according to their location, with alternative approaches presented to mitigating transmission assets which have higher impacts on designated landscapes. For each location where mitigation is proposed, the following information will be gathered:

- The project location and extent;
- The assessed impacts of the existing infrastructure;

- The type(s) of mitigation proposed, i.e. undergrounding, re-routeing, screen planting, etc;
- The indicative likely cost, presented as a relative scale; and
- The benefits and drawbacks of each potential solution.

Consultation

1.22 Consultation meetings will be held at this stage to discuss the 'long list' of identified projects, and to gather feedback on those projects which are seen to have most benefit. Stakeholders will be presented with the above information in an accessible format, and will be asked to attach greater or lesser priority to each mitigation option. This will allow stakeholders to select preferred projects through providing supporting rationale on the merit of each proposal presented to them.

1.23 In order to facilitate the process, stakeholders will be asked to comment on the value attached to the locations identified through the rLVIA work, the benefit of mitigation in each location, and the potential positive and negative implication of these.

1.24 The outcome of these consultations will be a 'short list' of projects which are beneficial, feasible, and which have a degree of stakeholder support.

Stage 3 Develop the projects

Review priority proposals sections in more detail

1.25 The projects which come forward from the end of Stage 2 as being the most likely to result in potential benefit will be subject to further scrutiny. Additional site work may be required at this stage to inform the further development of the mitigation proposal.

Technical, environmental and economic feasibility studies

- 1.26 SHE Transmission will undertake a more detailed technical feasibility study of each of the short listed projects, to ensure that they are deliverable and would not result in adverse effects on network resilience.
- 1.27 Environmental studies will include categorisation of the benefits of the proposal for visual amenity or landscape, but will be balanced against a more detailed consideration of potential impacts, including temporary construction impacts of engineering solutions. The potential for adverse impacts on a range of receptors will be examined, including effects on hydrology, ecology, noise, land use, waste, etc.
- 1.28 Indicative costs will also be identified at this stage. A high-level cost-benefit analysis will be undertaken to ensure the project represents a good use of the Ofgem funding, outlining, where appropriate, the relative economic, environmental, and social value of visual amenity enhancements. This information will be used to select a smaller number of best value projects for detailed development.

Consultation

- 1.29 Consultation meetings will be held at this stage to ensure that stakeholders are content with the analysis being undertaken, and to confirm the final selection of projects to Ofgem.

Detailed project development and submission to Ofgem

- 1.30 Projects selected for submission to Ofgem will be fully detailed and costed. A package of information will be drawn together, in consultation with Ofgem, to ensure that all necessary details are presented. SHE Transmission will seek Ofgem's advice on the required content and format of submissions.

Stage 4 Consent and implementation

- 1.31 It is likely that projects at this stage will require further consultation with stakeholders and statutory consultees to inform detailed design and to ensure that the identified benefits will be fully realised. Mitigation projects may require planning consent, and where these are needed applications will be developed at this stage to meet all required consenting requirements. These may include Environmental Impact Assessment for engineering solutions or larger-scale mitigation measures.
- 1.32 Projects will then be progressed in line with SHE Transmission's internal development governance.
- 1.33 Prior to commencement of works SHE Transmission will submit projects to Ofgem for approval in line with internal governance for project development and expenditure control.
- 1.34 Once consents are in place and Ofgem has approved a project, the mitigation measures can be delivered. Longer-term management and maintenance may be required for some solutions, and ongoing monitoring will be carried out to confirm that the expected benefits are delivered.

Consultation

- 1.35 Consultation with stakeholders at every stage of the process is an integral part of the project – with particular importance on the development and assessment stage. Section 1.41 provides a summary of the key stakeholders who will be engaged in the consultation process and who have been engaged in shaping the policy document. The consultation with stakeholders is to be undertaken primarily through informal discussions held at the stakeholder

partnership group forums. This will serve to ensure that the detailed analysis that both SHE Transmission and LUC (VISTA's landscape and visual impact consultants) are undertaking is in line with the preferences expressed through the stakeholder forums.

- 1.36 In addition to consulting with the stakeholder groups listed above, SHE Transmission will be working closely with the other UK Transmission Operators (TO's) – Scottish Power Energy Networks (SPEN) and National Grid. Quarterly engagement is anticipated, sharing best practice from the consultation process, and providing an opportunity for engagement with the different stakeholder partnership groups established under each TO's initiative.
- 1.37 SHE Transmission are engaging with two specific stakeholders, the Loch Lomond and the Trossachs National Park Authority, and the Cairngorms National Park Authority. In particular there is a joint engagement approach with SPEN in the Loch Lomond and the Trossachs National Park Authority area, where both TO's own and maintain infrastructure.
- 1.38 The consultation with stakeholders other than the National Park Authorities is managed using relevant stakeholder sub-groups. These are grouped by geographical location, to allow local input on the visual impact of infrastructure in their individual areas.
- 1.39 Consultation with the Loch Lomond and the Trossachs National Park Authority, and interested stakeholders, will be undertaken through a series of forums in line with the project stages outlined. For the Cairngorms National Park and remaining NSA's, sub-group forums will be held for those areas linked geographically, before holding a larger collective stakeholder feedback forum for these areas at the relevant project stages.

1.40 Organisation

- Atholl Estates
- Cairngorms National Park Authority
- Community Councils
- Development Trusts
- Forestry Commission Scotland
- Forestry Enterprise Scotland
- Friends of Loch Lomond and the Trossachs
- Highland Council
- Historic Scotland
- John Muir Trust
- Keep Rannoch Wild
- Loch Lomond and the Trossachs National Park Authority
- Luss Estates
- Mountaineering Council for Scotland
- National Grid
- National trust for Scotland
- Nevis Partnership
- North Harris Development Trust
- Perth and Kinross Council
- RSPB
- Scottish Government - Energy Consents & Deployment Unit
- SEPA
- Scottish Water
- SNH
- SP Energy Networks
- Visit Scotland
- West Harris Development Trust



Scottish and Southern Electricity Networks is a trading name of: Scottish and Southern Energy Power Distribution Limited Registered in Scotland No. SC213459; Scottish Hydro Electric Transmission plc Registered in Scotland No. SC213461; Scottish Hydro Electric Power Distribution plc Registered in Scotland No. SC213460; S+S Limited Registered in Scotland No. SC214382 (all having their Registered Offices at Inveralmond House 200 Dunkeld Road Perth PH1 3AQ); and Southern Electric Power Distribution plc Registered in England & Wales No. 04094290 having its Registered Office at 55 Vastern Road Reading Berkshire RG1 8BU which are members of the SSE Group.