Visual Impact of Scottish Transmission Assets (VISTA)

Assessing the impact of existing electricity infrastructure on National Parks and National Scenic Areas (NSAs) in Scotland

What is VISTA?

As part of price controls and incentives to cover the period up to March 2021 the electricity and gas markets regulator, Ofgem, is to administer a £500m fund for UK electricity transmission owners to mitigate the impact of existing electricity infrastructure on the visual amenity of nationally designated landscapes.

Scottish Hydro Electric Transmission plc (SHE Transmission) owns and maintains the electricity transmission network in the north of Scotland. The network comprises almost 5,300 km of high voltage electricity infrastructure and serves around 70% of the land mass of Scotland.

VISTA (Visual Impact of Scottish Transmission Assets) is a policy initiative designed by SHE Transmission to assess the visual impact of existing electricity infrastructure on National Parks and National Scenic Areas (NSAs) within the SHE Transmission network area. The overall



aim of the policy is to identify the most effective mitigation proposals for which funding can be sought from Ofgem. The statutory duties on Ofgem and UK electricity transmission owners regarding the conservation of natural beauty differ between England and Scotland due to the manner in which areas outwith National Parks are designated. In England, these are identified as Areas of Outstanding Natural Beauty and are designated under the Countryside and Rights of Way Act 2000 by Natural England. There is no equivalent statutory designation for areas outside National Parks and National Scenic Areas in Scotland and for that reason VISTA has as its focus the existing infrastructure in these designated areas.

Awards from the Ofgem fund will be utilised to further enhance designated landscapes by reducing the visual impact of existing overhead electricity transmission lines and substations. In order to ensure that SHE Transmission selects the most beneficial proposals, stakeholders are encouraged to engage in the process. This policy document sets out SHE Transmission's commitment to VISTA and identifies the key objectives for the initiative.

Why promote VISTA?

VISTA represents an opportunity to reassess the historic electricity infrastructure within and, in some instances, in close proximity to National Parks and NSAs, and to conserve and enhance the natural beauty, wildlife and cultural heritage of these important Scottish landscapes. By promoting this project SHE Transmission hopes to ensure that the proposals taken forward not only represent its vision as to where the natural beauty of the landscape can be enhanced, but also give those that live, visit and work in and around the designated landscapes a voice in contributing to the assessment and selection of candidate projects that may be taken forward. This will ensure that the proposals developed are technically feasible and achieve best value for money by targeting the areas with greatest potential for effective mitigation.

Where can SHE Transmission make a difference?

The Ofgem funding is available to mitigate the impacts of transmission infrastructure (132kV, 275kV and 400kV overhead transmission lines and substations) on National Parks and NSAs. In some instances, transmission infrastructure located in the immediate vicinity of a designated area may affect the special qualities identified in the designation and may be considered as eligible for preliminary assessment.

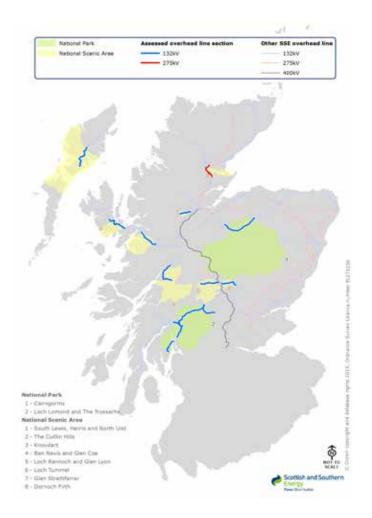
While the majority of SHE Transmission's existing infrastructure is located outside designated areas, sections of our network cross high amenity landscapes. Through VISTA, SHE Transmission aims to reduce adverse landscape and visual impacts associated with some of this infrastructure, and where possible enhance Scotland's natural and cultural heritage as a result.

The length of overhead lines identified within the areas considered amounts to:

- 339km of 132kV overhead transmission lines;
- 50km of 275kV overhead transmission lines; and
- 40km of 400kV overhead transmission lines.

The number of substations identified within the areas considered, or in close proximity (less than 2km) amounts to 16, in particular:

- Four in or adjacent to Loch Lomond and Trossachs National Park; and
- Four in or adjacent to Loch Tummel National Scenic Area



How we can make a difference?

There are strict criteria that proposed mitigation projects must satisfy in order to qualify for consideration as part of Ofgem's incentive. It is important that SHE Transmission takes full account of these through the consultation, assessment and project selection, allowing for identification of candidate projects that deliver the best enhancement of visual amenity. Regard must also be had to SHE Transmission's licence obligations under the Electricity Act, the most relevant of these being its duty to maintain its network in an economical and efficient way; having regard to the preservation of amenity; and having regard to the conservation and enhancement of the natural beauty, wildlife and cultural heritage of the National Parks and NSA's.



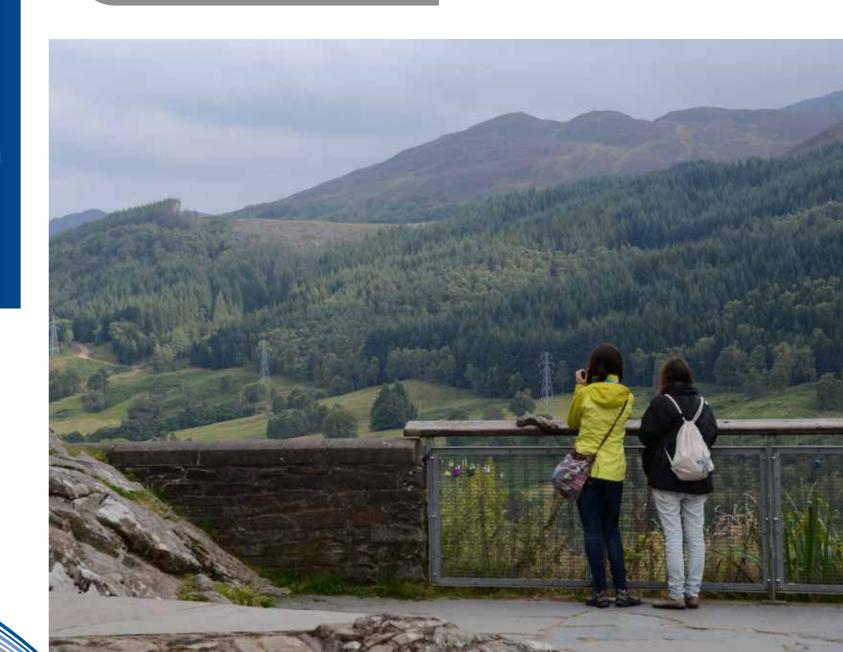
The fund can be used for measures which remove or reduce the impacts of existing infrastructure, or which may divert people's attention from impacts. Such landscape enhancement measures could include:

- Screening visible elements of infrastructure such as substations or overhead lines;
- Re-routing of existing overhead lines;
- Replacement of steel lattice towers with wood poles;
- Undergrounding existing overhead lines;
- Innovative mitigation techniques to reduce visibility of towers;
- General landscape enhancements which mitigate the impact of transmission infrastructure, and which may also support management plans or other ongoing initiatives;
- Recreational or social initiatives associated with the use of recognised designated areas, and which can be linked to improvement in visual amenity; and
- Other mitigation measures identified during consultations with stakeholders, including reducing impact of existing transmission infrastructure in areas of high amenity in close proximity to designated areas.

The fund cannot be used for:

- The construction of new transmission infrastructure;
- Mitigation of impacts of SHE Transmission infrastructure outside the immediate settings of National Parks or NSAs;
- Mitigation of impacts on other landscape, cultural heritage and natural heritage designations; or
- Reducing visual impact of distribution (i.e. low-voltage) infrastructure.
- Funding existing landscape enhancement initiatives that are viewed as business as usual, Vista must show additionality.

Following stakeholder involvement at each stage of the process, SHE Transmission will select the projects which demonstrate the most potential benefit to take forward for the application of funding from Ofgem. Priority will be given to projects with potential for landscape and visual improvements, which have positive social and environmental impacts, and are economically efficient. If possible and to increase the spread of the potential benefit a range of proposals for visual mitigation across different geographical areas will be put forward.



Working with Stakeholders

It is recognised that stakeholder involvement is essential for successful identification and delivery of the projects identified under the initiative. To ensure that our decisions are reflective of stakeholders' views, we wish to involve as many relevant parties as possible.

SHE Transmission will engage with stakeholders and other relevant interest groups in the coming months so there is an opportunity to contribute to the identification and selection of candidate projects. Engagement will be facilitated through the VISTA website, social media, stakeholder forums, and written consultation. In particular the stakeholder forums will make use of qualitative methods, such as group discussions where minutes will be taken to inform the development of proposals through the consultation.

SHE Transmission, with support of landscape architects from an external environmental consultancy, LUC, will seek to engage with relevant stakeholders by organising stakeholder forums. The first stakeholder forums were held in winter 2015 and their main focus was to understand stakeholders' views on the project. Due to the geographic spread of our networks SHE Transmission held two forums, one in Glasgow and one in Inverness.

SHE Transmission has assets in Loch Lomond and the Trossachs National Park (LLTNP), where Scottish Power Energy Networks (SPEN), who are the owner of the transmission network within central and southern Scotland, has already established a stakeholder partnership group. We recognise the importance of a 'joined-up' approach, and the same stakeholder group will be engaged in discussions on SHE Transmission's infrastructure. We will continue to work with SPEN and the existing stakeholder group to discuss proposals for LLTNP through a stakeholder forum.

The remaining assets are located within Aberdeenshire, Perth and Kinross and the Western Isles, with the majority located in the Highlands. We propose to organise stakeholder forums in each location within the scope of VISTA to ensure the consultation is accessible for relevant stakeholders with knowledge of the specific designated landscapes to contribute to the consultation process.

In addition to working closely with SPEN in the LLTNP, SHE Transmission will actively engage with National Grid on their own visual impact work, with the three Transmission Operators (TO's) committed to sharing best practice when consulting with stakeholders.

Aims of the Stakeholder Forums How will SHE Transmission

SHE Transmission intends to work with SPEN and National Grid, who own the transmission network in the rest of the UK, where possible. A collaborative approach in formulating the TO's initiatives will ensure appropriate consistency in dealing with transmission infrastructure across National Parks and NSAs, whilst maintaining existing relationships with key stakeholders.

The Stakeholder Forums will aim to:

- Help identify specific areas within or close to National Parks and NSAs which would benefit from infrastructure mitigation;
- Shortlist projects that SHE Transmission should take to development phase;
- Help inform an understanding of other environmental issues so that SHE Transmission can better assess any technical requirements for projects put forward for a request for funding; and
- Help review project benefits and evaluate use of the fund, as development of projects progresses.
- Contribute to development of mitigation options that could benefit selected projects, including any potential for collaborative working.

How will SHE Transmission take forward VISTA?

SHE Transmission is committed to preserving the beauty of the Scottish countryside and will seek to promote selected projects that will help to enhance Scotland's most precious landscapes, without giving rise to adverse impacts on other receptors that would outweigh the benefit of the mitigation. By way of example, while undergrounding existing overhead lines can improve visual amenity, it necessarily causes adverse impacts on habitats that may also be designated.

SHE Transmission aims to consider carefully potential projects/proposals referring to key selection criteria which will:

- deliver the most beneficial enhancements for Scotland's precious landscapes while keeping undesirable environmental impacts associated with particular mitigation measures (such as undergrounding) to a minimum;
- enable users of National Parks and NSAs to benefit from their recreational, educational and social offering;
- protect the technical viability of the wider transmission network;
- be economical and efficient; and
- involve a wider range of stakeholders.



Core values

In addition to the criteria outlined above, SHE Transmission will also develop projects identified under the VISTA initiative in line with SSE's core company values, which are as follows:

Safety

Any projects undertaken will be carried out safely and responsibly, minimising harm to the immediate environment.

Service

Engagement will be facilitated through the VISTA website, social media, stakeholder forums, and written consultation.

Efficiency

Selected proposals will seek to make the most of the fund available from Ofgem. We will ensure that chosen projects are achievable, technically feasible and add the most value, having regard to Ofgem's criteria, whilst avoiding wasting resources.

Sustainability

Selected projects will represent SHE Transmission's long term commitment to make a positive difference by conserving and enhancing natural beauty, wildlife and cultural heritage.

Excellence

We will aim to choose effective options that present value for customers, as assessed by Ofgem through the funding application, while utilising innovative techniques to improve the visual impact of the existing networks.

Teamwork

To ensure that all views are heard, we will collaborate with a wide range of stakeholders, including SPEN and National Grid.

Our approach to screening and assessment

In order to screen, assess and define candidate projects for further, more detailed review, VISTA has developed the following approach. This will enable step by step, evidence led and stakeholder informed decision making.

- Identification of designated areas affected by SHE Transmission infrastructure in Scotland. Locations to be considered are National Parks and NSAs, including areas in close proximity to their boundaries, where infrastructure may affect the special qualities of the designated areas. For more detail please see :http://www.snh.gov.uk/ protecting-scotlands-nature/protectedareas/national-designations/nsa/specialqualities/
- Development of a clear and transparent approach based on standard assessment process to enable SHE Transmission to identify impacts and any proposed mitigation effectively.
- Meeting with representatives from stakeholders to collect information on selected regions, their qualities and unique features.
- Consideration of the wider group of visual receptors affected by their proximity to transmission infrastructure.
- Evaluation of the landscape and visual impact that existing SHE Transmission infrastructure has on affected landscapes and those viewing the landscape within, or looking towards, these designated areas.
- Prioritisation of the areas where infrastructure has the greatest landscape and visual impacts, but which also have potential to benefit significantly from any proposed mitigation.

 Preparation of a final report summarising the outcomes of assessments and consultation, balancing visual benefit with technical requirements and cost efficiencies of each project and recommendations for projects that could be progressed for detailed design and funding request submission. The report will include maps and photographs supporting the final recommendations.

Applied Methodology

SHE Transmission will develop a methodology in conjunction with specialist consultants that will assist with assessment of the nature of landscape and visual impacts of transmission infrastructure on areas within National Parks and NSAs. We will develop an established approach in accordance with the Guidelines for Landscape and Visual Impact Assessment 3rd Edition (GLVIA3), using clearly defined terminology which is familiar and understood by stakeholders and landscape professionals, but taking account of the fact that infrastructure is already existing within the landscape.

Our focus will be on assessing steel lattice towers, overhead lines and substations, but other infrastructure, such as wood pole lines forming part of the transmission network, will also be examined to establish if mitigation can be considered as being appropriate.

A two stage approach to assess the impacts has been developed. The first stage will involve desk-based review and initial field surveys of infrastructure, designed to determine the feasibility of a candidate project, the scope of proposed mitigation and the relative benefit of the candidate projects. This will seek to scope out locations where mitigation would be difficult and/or would achieve limited benefit. The second stage involves a more detailed survey of the remaining locations to identify the key receptors affected and the significance of each impact. This information will be used to provide an outline design of mitigation measures that will achieve the most effective level of mitigation, without giving rise to other unacceptable impacts on other receptors. This assessment process will include detailed technical input from SHE Transmission engineering and operation teams at each stage.

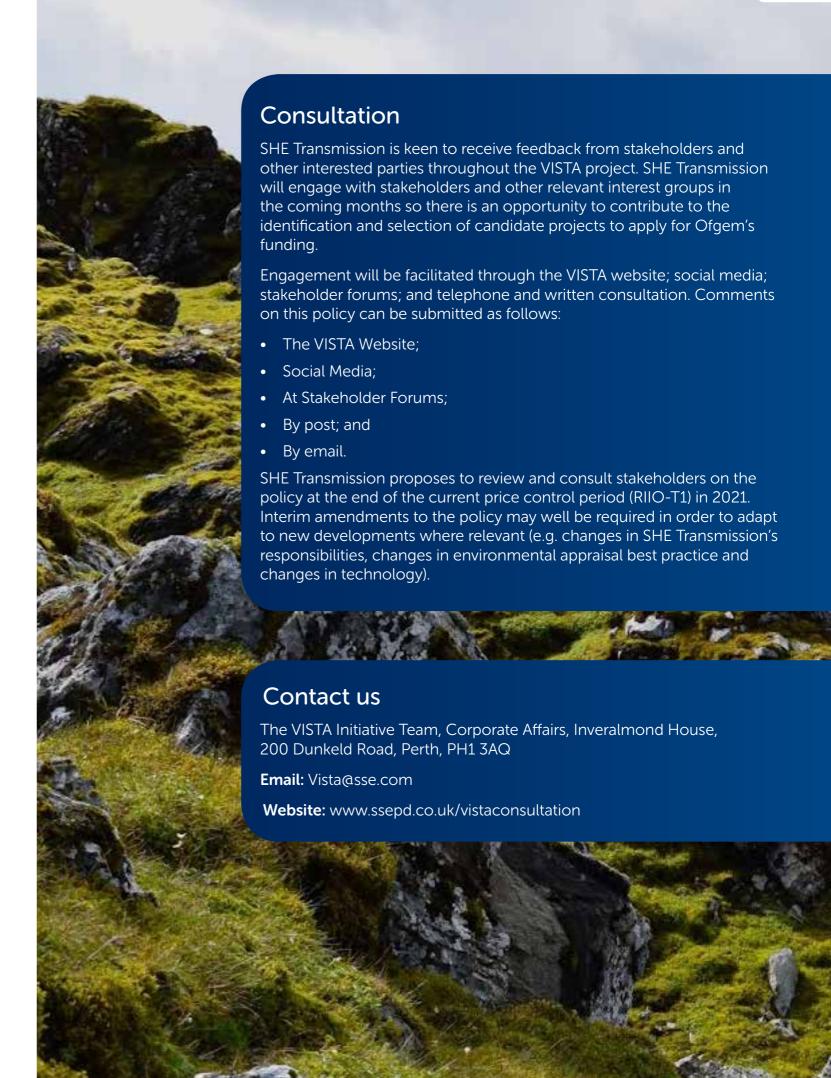
The design and selection of mitigation projects will be informed by further technical review by SHE Transmission and further specialist environmental studies may also be required. Throughout the development and assessment of the projects, communication and engagement with the stakeholders will be an essential part of the project. However, stakeholder input will be required at every stage of the project to ensure identified visual enhancements are realised.

VISTA Timeline

SHE Transmission aims to complete and make its first submission of VISTA proposals to Ofgem in 2017. By this time, we need to have assessed the impacts of existing infrastructure, to have developed potential mitigation solutions where appropriate, and to have appraised different options to select the most beneficial proposals. All this will be carried out in collaboration with our stakeholders.

The timeline below sets out how the different work streams of the project will run in parallel.

Approximate Timeline	Policy Document	Stakeholder Engagement	Stakeholder Engagement
September 2015	Publication of Policy Document for public consultation Submission of Policy Document to OFGEM	Desk-based review and initial site surveys Detailed site surveys of selected infrastructure	First stakeholder forums
April 2016		Technical review and potential	Second stakeholder forums
August 2016	OFGEM acceptance of Policy Document	mitigation Detailed technical review and reporting	Third stakeholder forums
Winter 2016 Onwards		Project development and submissions to OFGEM	





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