SP ENERGY NETWORKS

The Dumfries and Galloway Strategic Reinforcement Project

Summary of Feedback from 2015 Consultation, which remains relevant to a revised scheme

July 2016

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SP Energy Networks
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Purpose of this document

SP Energy Networks (SPEN) is pleased to provide the following report, which follows the first round of public consultation on the proposed Dumfries and Galloway Strategic Reinforcement (DGSR) Project.

Since the consultation was carried out in summer 2015, the scope of the project has been revised. It now comprises a scheme between Kendoon and Tongland as detailed in the next section. The purpose of this document is to explain the reasons why the project has changed, address feedback received during the first round of consultation (which is specific to the revised project) and demonstrate how this feedback has influenced its development.

The full DGSR Project between Auchencrosh and Harker is not being progressed at this time. This report focuses on addressing feedback from the first round of consultation which is relevant to a revised scheme between Kendoon and Tongland. In the context of the first round of consultation, this is feedback which is relevant to Consultation Zones 3 and 4 regarding the replacement of existing infrastructure between Kendoon, Carsfad, Earlstoun, Glenlee and Tongland.

In this regard, feedback received which relates to the areas listed below, and which was provided in relation to those elements no longer being progressed (*Summary of Feedback Report*, February 2016), is not addressed within this report:

- Consultation Zone 1 (Auchencrosh to Newton Stewart);
- Consultation Zone 2 (Newton Stewart to Glenlee);
- Consultation Zone 5 (Glenlee to Dumfries);
- Consultation Zone 6a (Dumfries to the Scottish/English border); and
- Consultation Zone 6b (Scottish/English border to Harker).

Executive summary

Background

The existing electricity network in Dumfries and Galloway is typically a 132 kilovolt (kV) interconnected system with a separate 275kV circuit in South Ayrshire running from Auchencrosh to Coylton. At Auchencrosh, a subsea high voltage direct current (HVDC) cable known as the 'Moyle' interconnector comes ashore, which facilitates the transfer of electricity between Great Britain and Ireland.

Since much of the network was constructed in the 1930s the needs of the electricity system and its users have changed. The area is rich in renewable resources and has seen significant development of generation that is seeking to connect to the electricity network. The infrastructure is approaching the end of its life and is beyond economic refurbishment. Furthermore there is inadequate capacity to allow the connection of renewable generation that is currently contracted to connect to the system.

As a result, SPEN developed plans for a new high voltage electricity transmission network of up to 400kV between Auchencrosh and Harker in Cumbria, passing through Dumfries and Galloway. The project was known as the Dumfries and Galloway Strategic Reinforcement (DGSR) Project. The scale of the DGSR Project has been subject to the outcome of a cost-benefit analysis and the input of stakeholders.

The three driving forces behind the project were:

- Replacing ageing assets that are near the end of their life and maintaining secure supplies into the future;
- Increasing network capacity to allow renewable generation to connect in the immediate and long term; and
- Providing extra network capacity so that the 'Moyle' interconnector performs to its design potential rather than being inhibited by technical restrictions.

In the summer of 2015, SPEN carried out a three-month public consultation on its DGSR Project, which included proposals for:

- A new high voltage overhead line of up to 400kV from Auchencrosh, in South Ayrshire, through Dumfries and Galloway, to Harker, near Carlisle;
- Two new 132kV overhead lines from Glenlee to Tongland and from Glenlee to Kendoon;
- Four new high voltage substations at Auchencrosh, Newton Stewart, Glenlee and Dumfries; and
- Removing around 130km of existing 132kV overhead electricity lines.

Recent developments

In parallel with the consultation, SPEN has been working with National Grid, in its role as GB Transmission System Operator, to carry out a thorough cost-benefit analysis (CBA) of the DGSR Project to makes sure it develops Dumfries and Galloway's transmission system in the most efficient and economic way.

The CBA looked at options ranging from the full 400kV Auchencrosh to Harker proposal to a reduced scheme based on the modernisation of existing 132kV infrastructure and the provision of some additional capacity on the system.

The results concluded that the 400kV Auchencrosh to Harker proposal did not deliver enough benefit for electricity consumers in Great Britain relative to the cost of the project at this time. The outcome of this work is the identification of a recommended solution which is significantly reduced in scope and scale and only partially meets the original project drivers. It is therefore recommended that a Reduced Scheme, which is integral to and forms part of the original project, should be progressed at this time.

The Reduced Scheme no longer meets Ofgem's eligibility criteria specified for Strategic Wider Works (SWW) projects. It does not therefore require an initial needs case as the project does not qualify for funding under the SWW mechanism and does not need to be assessed by Ofgem under that process. However, the project raises significant issues of stakeholder interest and we have therefore invited Ofgem to consider a project submission and express their views on whether or not the Reduced Scheme can be delivered outwith the SWW mechanism. This is known as SPEN's 'Ofgem submission'. There is more information about this process on our website www.spendgsr.co.uk under the *Project Need Case* tab.

Following this decision, SPEN will not carry out further consultation on the full 400kV Auchencrosh to Harker scheme at this time. However, the network will be reviewed on an annual basis to make sure it maintains its high standard of reliability while facilitating development of new sources of generation.

The Reduced Scheme

In the meantime, SPEN will progress a Reduced Scheme to the next stage of routeing and consultation.

For clarity, we are referring to this proposal as the *Kendoon to Tongland 132kV Reinforcement (KTR) Project*.

The KTR Project will include upgrading the existing 132kV transmission network between Polquhanity, Kendoon, Carsfad, Earlstoun, Glenlee and Tongland, to replace existing end-of-life infrastructure, enhance security of supply and provide some additional capacity. As part of the KTR Project, SPEN also intends to remove existing 132kV lattice steel tower overhead lines that are no longer required.

The KTR Project therefore consists of proposals for:

- The replacement of the 132kV network between Polquhanity, around 3km north of the existing Kendoon substation, and the existing Kendoon substation. This will involve building a new 132kV double circuit overhead line;
- The replacement of the 132kV network between the existing Kendoon substation and the existing Glenlee substation. This will involve building a new 132kV double circuit overhead line;
- The replacement of the existing 132kV circuit between Carsfad and Kendoon. This will involve building a new single circuit 132kV overhead line;
- The replacement of the existing 132kV circuit between Earlstoun and Glenlee. This will involve building a new single circuit 132kV overhead line;
- The replacement of the 132kV network between Glenlee and Tongland. This will involve building a new 132kV double circuit overhead line;
- The extension of the existing 132kV Glenlee substation; and
- The removal of the existing 132kV overhead lines between Polquhanity, Kendoon, Carsfad, Earlstoun, Glenlee, Tongland and Dumfries. This will involve the decommissioning of around 90km of existing overhead line infrastructure.

Figure 0.1 Picture of existing single circuit line between Kendoon and Glenlee, to be replaced

SPEN's response to feedback on the original DGSR Project

SPEN would like to thank everyone who took the time to engage with the project during the first round of consultation.

As explained in the *Purpose of this Document* section, because the full DGSR Project between Auchencrosh and Harker is not to be progressed at this time, the remainder of this report focusses on addressing feedback from the first round of consultation which is relevant to the 'reduced scheme' between Kendoon and Tongland. In the context of the first round of consultation, this is feedback which is relevant to Consultation Zones 3 and 4 regarding the replacement of existing infrastructure between Kendoon, Carsfad, Earlstoun, Glenlee and Tongland.

In this regard, feedback received which relates to the areas listed below is not addressed within this report:

- Consultation Zone 1 (Auchencrosh to Newton Stewart);
- Consultation Zone 2 (Newton Stewart to Glenlee);
- Consultation Zone 5 (Glenlee to Dumfries);
- Consultation Zone 6a (Dumfries to the Scottish/English border); and
- Consultation Zone 6b (Scottish/English border to Harker).

Should there be a need to progress the full DGSR Project in the future then SPEN would need to consider the specific project drivers and transmission system requirements at that point in time. This could mean that the scope and scale of the project may differ from that which was consulted on in 2015, for example the project may require different voltages and points of connection to the existing transmission network.

Regardless of what a future DGSR project might look like, SPEN would develop proposals to a point where meaningful stakeholder engagement could be undertaken on the project.

Conclusions from First Round of Consultation

SPEN have reviewed and considered in detail all feedback received from the public, consultee bodies and local interest groups, in relation to the first round of consultation for those elements of the original DGSR Project which are to be progressed, specifically within Consultation Zones 3 and 4.

The feedback received has informed SPEN's review of the KTR Project with regards to the following:

- People's views on the project as a whole, including the routeing methodology;
- People's views on SPEN's corridors;
- Information about the local area, for example, areas people use for recreation, local environmental features people wanted us to consider, and any plans people had to build anything in our preferred corridors; and
- People's views on conducting future rounds of consultation.

The conclusions of the review and analysis of the feedback received during the first round of consultation can be viewed in Chapter 11. However, the key issues can be summarised as follows:

Routeing

- Corridor G/T 2 has been confirmed as the proposed corridor between Glenlee and Tongland. This corridor has also been extended (widened) as outlined in Chapter 8, paragraph 8.2.51 and shown in figure 11.1. This corridor will now be progressed to the next stage of the routeing process; and

- Corridor K/G 1 has been confirmed as the proposed corridor between Kendoon and Glenlee as outlined in Chapter 8 and shown in figure 11.1. This corridor will now be progressed to the next stage of the routeing process

Consultation Strategy

- Correspondence relating to the project will be mailed in branded envelopes, to help people recognise it as project information and not marketing material;
- The difference in height and design between existing and proposed towers will be made clearer in future consultation materials, where appropriate;
- Supporting documentation to explain the process and provide further information on decision-making will be published as and when it becomes available;
- During consultation periods, the online feedback form will be continually reviewed in response to comments;
- Data storage devices containing higher resolution versions of key project documents will be available on request at a lower cost than printed copies;
- Copies of information leaflets about EMFs (prepared by others) will be made available at information points and online and will be available on request;
- A5 posters will be made available for local notice boards and other community display points to maximise awareness of the consultation and exhibitions; and
- An alternative more central venue will be sought for future exhibitions in Kirkcudbright.

1. Introduction

1.1 Overview

1.1.1 The new overhead lines required as part of the KTR Project will require the submission of applications for consent under Section 37 of the Electricity Act 1989, to be determined by Scottish Ministers. This process will be administered by the Scottish Government Energy Consents and Deployment Unit (ECDU).

1.1.2 There are no formal pre-application requirements for consultation as part of the Section 37 consent process. However, best practice guidance encourages applicants to engage with stakeholders and the public in order to develop their proposals in advance of an application being made. Guidance on the application process is outlined in the Scottish Government Energy Consents and Deployment Unit's *Good Practice Guidance (January 2013).*

1.1.3 SPEN's consultation strategy has therefore been built around consulting on proposals at each stage of the development process. This is to ensure that all stakeholders and individuals with an interest are kept up to date and, most importantly, have a chance to influence the development of the scheme. A fundamental part of this approach is reporting back to both stakeholders and decision makers on how the feedback received has actually influenced the development of the scheme.

1.1.4 The scope of the first round of consultation was to invite the views of statutory and non-statutory consultees, the public and local communities close to the preferred corridors on a range of issues and to obtain feedback to shape the design of the scheme at a very early stage.

1.1.5 This report details only those consultation activities undertaken during the first round of non-statutory consultation which are applicable to the KTR Project.

1.1.6 The report will inform the development of the project, including subsequent rounds of pre-application consultation which SPEN proposes to undertake. All work undertaken on pre-application consultation will be detailed in a final non-statutory Pre-Application Consultation Report to be submitted with the applications under Section 37 to Scottish Ministers. This will demonstrate how feedback from consultees has influenced the development of the scheme.

1.2 SPEN's role

1.2.1 SPEN owns and operates the electricity transmission and distribution networks in central and southern Scotland through its wholly-owned subsidiaries SP Transmission plc (SPT) and SP Distribution plc (SPD). Its transmission networks are the backbone of the electricity system in its area, carrying large amounts of electricity at high voltages across long distances. The distribution networks are local networks, which take electricity from the transmission grid and bring it into the heart of communities. SPEN's transmission network in Scotland consists of 133 substations, more than 4,000km of overhead lines and more than 320km of underground cables.

1.2.2 The location of SPEN's transmission network – lying between the Scottish Hydro Electric (SHETL) transmission network in northern Scotland and the Scottish islands, and the National Grid (NGET) transmission network in England – means it has a role linking the parts of the UK transmission system together. It is also connected to the Northern Ireland transmission network via a high voltage direct current (HVDC) subsea cable, which comes ashore at Auchencrosh, on the South Ayrshire coast. This cable is sometimes referred to as the 'Moyle' interconnector.

1.3 SPEN's commitment to engagement

1.3.1 Stakeholder and public involvement is an important component of the UK planning (and consenting) system. Legislation and government guidance aims to ensure that the public, local communities, statutory and other consultees and interested parties have an opportunity to have their views taken into account throughout the planning process.

1.3.2 SPEN attaches great importance to the effect that its work may have on the environment and on local communities. In seeking to achieve 'least disturbance', SPEN is keen to engage with key stakeholders including local communities and others who may have an interest in the project. This engagement process begins at the early stages of development of a project, and continues into construction once consent has been granted.

1.3.3 Its approach to stakeholder engagement for major electrical infrastructure projects is outlined in Chapter 5 of the document *Major Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* (available to download from www.spendgsr.co.uk). SPEN aims to ensure effective, inclusive and meaningful engagement with local communities, statutory consultees, stakeholders and interested parties when undertaking electricity work, through the four key engagement stages outlined in paragraph 5.3 of that document.

1.3.4 In addition, SP Transmission plc, as holder of a transmission licence, has a duty under Schedule 9 to the *Electricity Act 1989*, when putting forward proposals for new electricity lines and other transmission development, to have regard to the desirability of the preservation of amenity, the natural environment, cultural heritage, landscape and visual quality, as well as the effect of work on communities. See Appendix H for a copy of the Schedule 9 Statement.

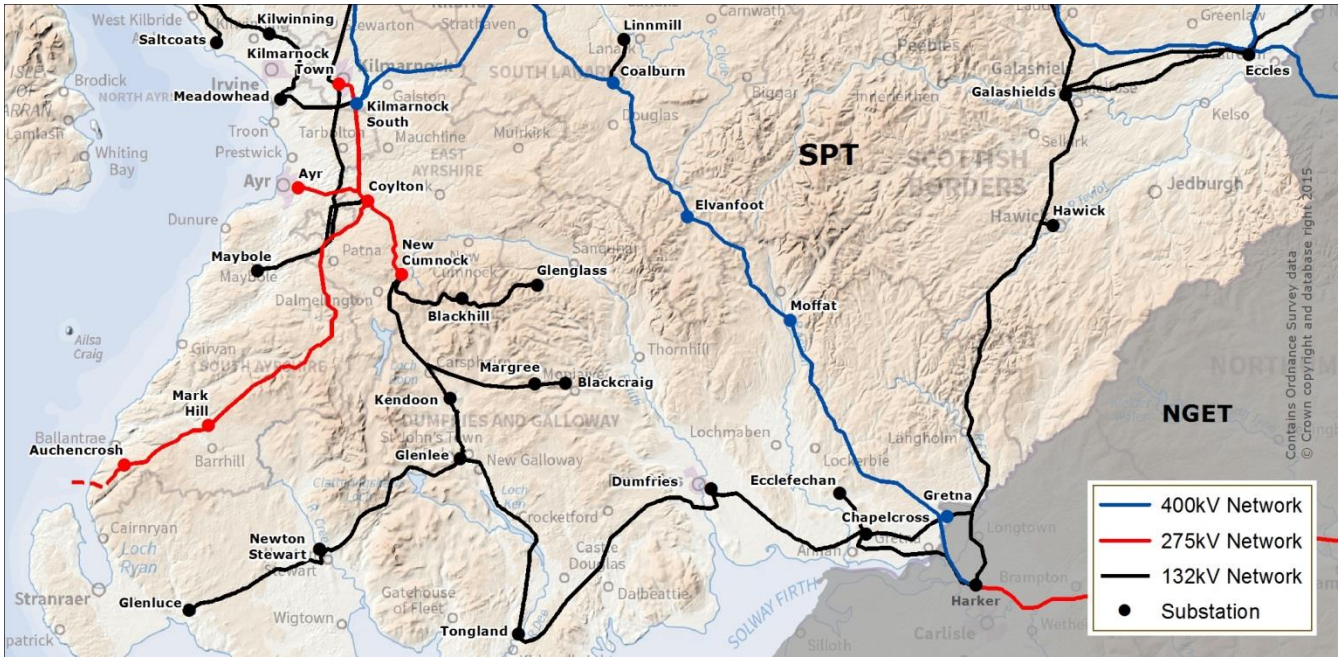
2. The Kendoon to Tongland Reinforcement (KTR) Project

2.1 Background to the project

2.1.1 The electricity transmission network in Dumfries and Galloway is a legacy network developed between the 1930s and 1970s to supply local customers and connect the area's hydro generation schemes. It includes approximately 200km of double circuit and single circuit 132kV overhead lines. The network serves more than 83,000 local customers.

2.1.2 The existing electricity transmission network is shown in **Figure 2.1.** The 132kV overhead line runs from Glenluce to Newton Stewart, then on to Glenlee, before heading north towards Dalmellington and south to Tongland from where it heads east via Dumfries towards Gretna, on the border with England. At Gretna it becomes 400kV to connect south to the National Grid substation at Harker, near Carlisle. A separate 275kV transmission line links Auchencrosh in South Ayrshire to Coylton in East Ayrshire.

Figure 2.1 SPT electricity transmission network in South of Scotland



2.1.3 When SPEN assessed the network as part of its asset replacement programme, nearly 90km of the transmission lines in Dumfries and Galloway were found to be approaching the end of their operational life. Specifically, these are the lines running from Kendoon to Glenlee, from Glenlee to Tongland, from Tongland to Dumfries and to a lesser extent the line from Chapelcross to Harker. As assets get older, the need for maintenance work becomes more critical and more difficult, and the exposure to unplanned outages (faults) increases. Asset replacement is essential to provide secure, reliable supplies to existing and future customers.

2.1.4 At the same time, the electricity system in the UK is going through a transformational change with the move towards a low carbon economy. Traditional large fossil fuel centralised power stations are being replaced by renewable generating stations (mainly onshore wind farms) which are geographically more dispersed. The south west of Scotland is an area rich in renewable resources and significant investment is being made in wind farm development. There is more than 339MW of renewable energy connected to the Dumfries and Galloway network already, with another 205MW contracted to connect in the future. However, the transmission network is severely congested and no capacity is available for the transfer of this electricity. The area needs a new transmission network which is appropriately sized to meet the needs of existing users and allows SPEN to continue to fulfil its licence obligation to make offers to allow generators wishing to connect to the transmission system to do so. SPEN is obliged to make its transmission system available for these purposes and to ensure that the system is fit for purpose.

2.2 Project development up to the first round of consultation

2.2.1 The development of the project involved two stages:

- Strategic options – to identify where and by what means the modernisation and reinforcement of the electricity transmission network might be carried out in Dumfries and Galloway; and
- Corridors and substation siting area study – to identify preferred corridors and substation siting areas based on consideration of environmental and technical constraints.

Strategic options

2.2.2 SPEN considered a number of high-level strategic options to satisfy the original three project drivers as part of the design process. These drivers included:

- Replacing ageing transmission assets in the Dumfries and Galloway area;
- Increasing capacity to connect new renewable generation; and
- Facilitating the import of electricity from Ireland via the existing subsea link at Auchencrosh (known as the Moyle Interconnector).

2.2.3 However, since the close of the first round consultation, a number of significant developments in the wider energy sector materialised which have influenced the scale and nature of the project. Although it remains the case that investment is required to replace the ageing infrastructure in the Dumfries and Galloway region, SPEN and National Grid, in its role as GB Transmission System Operator, have undertaken a thorough cost-benefit analysis (CBA) of the original strategic options to determine the extent of reinforcements required to facilitate an economic and efficient transmission system. The CBA analysis entailed the assessment of incremental reinforcements to the transmission system against various generation scenarios to determine the most efficient and economic system that will provide the best value for money for GB consumers.

2.2.4 The main conclusion of the CBA was that the full 400kV Auchencrosh to Harker proposal did not deliver enough benefit for GB consumers relative to the cost of the investment. As a result, SPEN only proposes to take forward the reinforcement and modernisation of the 132kV network between Polquhanity, Kendoon, Glenlee and Tongland at the present time. Further information on this process can be found at www.spendgsr.co.uk under the *Project Need Case* tab. For clarity, the revised project is being called the Kendoon to Tongland 132kV Reinforcement (KTR) Project.

2.2.5 SPEN is required to develop and maintain an efficient, co-ordinated and economical system of electricity transmission and cause, on balance, the least disturbance to the environment and the people who live, work and enjoy recreation within it.

2.2.6 To achieve these aims, SPEN's preferred solution is for an onshore project that will enable the replacement of ageing assets while providing some additional capacity to facilitate the connection of new generation in the area.

2.2.7 The project will entail the following:

- The replacement of the 132kV network between Polquhanity, around 3km north of the existing Kendoon substation, and the existing Kendoon substation. This will involve building a new 132kV double circuit overhead line;
- The replacement of the 132kV network between the existing Kendoon substation and the existing Glenlee substation. This will involve building a new 132kV double circuit overhead line;
- The replacement of the existing 132kV circuit between Carsfad and Kendoon. This will involve building a new single circuit 132kV overhead line;
- The replacement of the existing 132kV circuit between Earlstoun and Glenlee. This will involve building a new single circuit 132kV overhead line;
- The replacement of the 132kV network between Glenlee and Tongland. This will involve building a new 132kV double circuit overhead line;
- The extension of the existing 132kV Glenlee substation; and
- The removal of the existing 132kV overhead lines between Polquhanity, Kendoon, Carsfad, Earlstoun, Glenlee, Tongland and Dumfries. This will involve the decommissioning of around 90km of existing overhead line infrastructure.

SPEN is now working on these plans and will be consulting on them in the second round of consultation.

Corridors and substation siting study

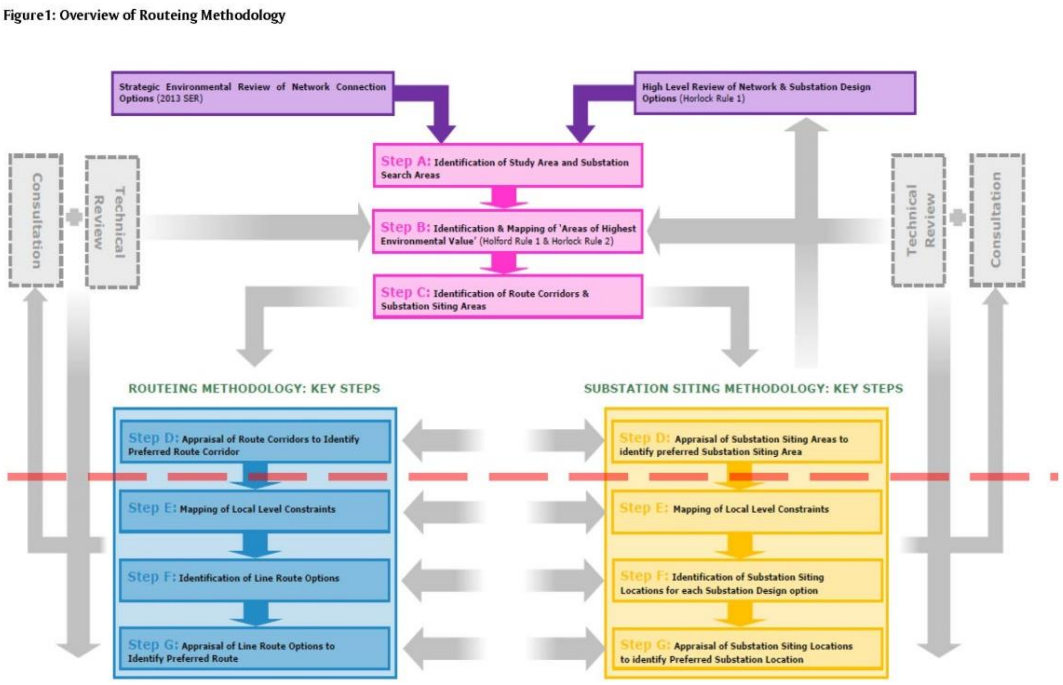
2.2.8 A number of corridors between Kendoon and Glenlee and Glenlee and Tongland were identified for the original DGSR Project and are applicable to the KTR Project. SPEN's *Routeing and Consultation Document* (available to download from www.spendgsr.co.uk) describes the routeing and siting methodology used.

2.2.9 The initial stages of the routeing process, up until the first round of non-statutory consultation, comprised the identification of a study area for the overhead line, within which environmental characteristics were mapped to inform the identification of a number of route corridors. These met SPEN's overarching objective, which, in as far as it relates to the KTR Project, is:

"To identify a technically feasible and economically viable route for a continuous 132kV overhead line connection supported on lattice steel towers from Polquhanity to Kendoon, from Kendoon to Glenlee, and from Glenlee to Tongland. The project is also required to identify new 132kV overhead line connections supported on Trident wood poles from Carsfad to Kendoon , and from Earlstoun to Glenlee. This route and the related connections should, on balance, cause the least disturbance to the environment and the people who live, work and recreate within it".

Figure 2.2 'Overview of routeing methodology', gives an overview of the broad sequential steps in SPEN's routeing methodology.

Figure 2.2 Overview of routeing methodology



3. The first round of consultation

3.1 Overview

3.1.1 SPEN attaches great importance to the effects that its work may have on the environment and on local communities. In seeking to bring forward proposals which cause, on balance, the 'least disturbance' to people and the environment, SPEN is keen to engage with key stakeholders including local communities and others who may have an interest in the project.

3.1.2 In order to achieve this, SPEN aims to ensure effective, inclusive and meaningful engagement with the local community, statutory consultees and other interested parties. SPEN's commitment to engaging with those communities affected by its activities is reflected in its *General Corporate Social Responsibility Policy* and its document *Major Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment*, as previously discussed in section 1.3.

3.1.3 SPEN considers that the KTR Project should be subject to three rounds of non-statutory consultation. This is fewer than proposed for the original full DGSR Project. However, following a review of its consultation strategy, SPEN considers this is proportionate to the reduced scope and complexity of the KTR Project. The three rounds are:

- First round (complete) – Preferred corridors and substation siting areas consultation;
- Second round– Preferred route and substation sites consultation; and
- Third round – Detailed design pre-application consultation.

3.1.4 This section of the report sets out the legislative process with regard to consultation; details of pre-consultation stakeholder engagement conducted by SPEN; the development of SPEN's consultation strategy; the activities undertaken during the first round of consultation which are relevant to the KTR Project; and the range of people and organisations consulted.

3.2 Consenting legislation and guidance

3.2.1 SPEN will be required to apply to Scottish Ministers for consent for the KTR Project under Section 37 of the *Electricity Act 1989*, to install, and keep installed, the overhead electricity lines. At the same time, SPEN will need to apply for deemed planning permission for the electricity lines, and proposed substation work, under section 57(2) of the *Town and Country Planning (Scotland) Act 1997*.

3.2.2 SPEN is also required to comply with publicity and consultation requirements under *The Electricity (Applications for Consent) Regulations 1990 as amended* and *The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 as amended*. Scottish Government also expects applicants for Section 37 consent to apply by analogy the requirements for pre-application consultation which exist for applications made under the *Town and Country Planning (Scotland) Act 1997*.

3.2.3 Guidance on this process is outlined in the Scottish Government Energy Consents and Deployment Unit's *Good Practice Guidance (January 2013)*.

3.2.4 At each stage of the KTR Project, consultation responses will be considered and previous decisions reconsidered and back-checked to determine if SPEN's decisions are still appropriate.

3.3 Pre-consultation stakeholder engagement

3.3.1 SPEN considered it important to engage with statutory and non-statutory consultees at an early stage in the development of the project.

3.3.2 When the project started in 2014 SPEN formed a Statutory Stakeholder Liaison Group (SSLG), to which all of the project's statutory stakeholders were invited. The main aim of this group was and remains to ensure good lines of communication with statutory consultees and to discuss the key planning, landscape and environmental matters relating to the project. The SSLG is chaired by the Scottish Government and aims to meet on a regular basis throughout the lifetime of the project. Before the first round of consultation, a meeting of the SSLG was held to inform the routeing methodology and the consultation strategy.

3.3.3 The Terms of Reference for the SSLG can be found in Appendix I. Below is a list of SSLG members prior to the start of the first round of consultation. This list reflects the geographical extent of the Auchencrosh to Harker DGSR Project:

- Scottish Government Energy Consents and Deployment Unit
- South Ayrshire Council
- Dumfries and Galloway Council
- Cumbria County Council
- Carlisle City Council
- Scottish Environment Protection Agency (SEPA)
- Environment Agency
- Historic Scotland
- Historic England
- Scottish Natural Heritage (SNH)
- Natural England

3.3.4 Given the change in scope and scale of the project, the continuing role of the group along with its scope and membership, will require to be agreed with those members who will be statutory stakeholders in the consents process for the KTR Project.

3.3.5 Building on this stakeholder engagement, SPEN ensures that individual relationships with relevant local authorities and statutory consultees remain strong by maintaining good lines of communication. This is an ongoing process which influences and shapes SPEN's approach to the project and to consultation.

3.3.6 SPEN considers the information received from the local authorities to be vital in shaping its overall approach to consultation. For the purposes of developing the KTR Project, SPEN has worked and will continue to work with Dumfries and Galloway Council and all members of the SSLG to ensure that they are kept fully informed. In addition to this, public feedback on the consultation strategy will be used to shape SPEN's approach to future rounds of consultation.

3.4 The consultation strategy

3.4.1 The activities in the first round of consultation were intended to ensure that people:

- Had access to project information;
- Were able to put forward their own views and feel confident that there was a process in place for considering any issues raised;
- Played an active role in developing SPEN's proposals;
- Could comment on and influence proposals; and
- Received responses and were informed about progress and outcomes.

3.4.2 In accordance with guidance, and informed by discussions with the relevant local planning authorities through the SSLG, SPEN undertook to employ a range of methods and techniques to ensure as many sections of the community were involved as possible during first round of consultation.

Consultation zones

3.4.3 To ensure residents closest to the proposals were consulted directly, SPEN defined consultation zones which included all residential and business addresses within the preferred corridors and areas close to them. The consultation zone was defined as an area generally extending to a kilometre either side of the preferred corridors.

3.4.4 Adjustments were made to the consultation zones to further ensure engagement was not divisive or inappropriate. The adjustment relevant to the KTR Project is summarised below.

- Extension to the zone – where the boundary of the consultation zone as originally defined bisected the community at Kirkcudbright, the zone was extended at that point to include the entire town.

3.4.5 The consultation zones are shown in Appendix J. Only Zone 3 (Glenlee to Tongland) and Zone 4 (Glenlee to Kendoon) are relevant to the KTR Project.

3.4.6 The consultation zones were used to define areas for direct mailing of consultation literature and to make commenting easier. However, they were not restrictive or used to limit the numbers who could make comment. All members of the public were encouraged to participate in the consultation, attend exhibitions or make comments using one of the channels established for the purpose.

3.5 The first round of consultation

3.5.1 On 8 June 2015, SPEN publicly launched its first round of non-statutory consultation, which was originally scheduled to run for seven weeks until 24 July 2015. As a result of feedback during the consultation period, a decision was taken to extend the consultation by a further five weeks until 31 August 2015, bringing the total duration of the first round of consultation to twelve weeks.

3.5.2 In the first round of consultation SPEN asked the public for its opinions on the preferred corridors. The objectives of the first round of consultation were to:

- Explain the background and need case for the project;
- Explain the process SPEN had used to identify its preferred corridors and demonstrate why it believed this was the most appropriate option based upon engineering, environmental, economic and community considerations;
- Invite the views of statutory and non-statutory consultees, other bodies, the public and local communities about the proposed work and, specifically, views on SPEN's preferred options; and
- Gather views on the preferred corridors and siting areas, together with any other information stakeholders and the public felt SPEN should take into account.

3.5.3 A range of official communications channels were established to answer queries. These were also used to collect the feedback. These were:

- A dedicated Freephone number: 0800 157 7353;
- A dedicated project email address, dgsr@communityrelations.co.uk; and
- A Freepost address, FREEPOST SPEN DGSR.

3.5.4 A wide range of materials and activities were also used to share information and invite people to take part.

Project leaflet

3.5.5 A project leaflet in a clear plastic packaging was posted to all properties in postcodes inside the consultation zones. This mailing included around 3,480 residents in Zones 3 and 4. It was timed to be received on Monday 25 May 2015, two weeks ahead of the first public exhibition. This launched the first round of consultation.

3.5.6 This leaflet was the principal form of direct communication with local communities and provided an overview of the project, including project need and the work undertaken up to that point with regards to corridor routeing. The leaflet showed the preferred corridors and described these in terms of the consultation zones. A copy of the leaflet can be found in Appendix F.

3.5.7 In order to help people provide feedback that was as informed as possible, the project leaflet also explained the consultation process itself. It did this by explaining the purpose of the consultation together with a summary and map of the preferred corridors and siting areas, and providing clear details of how to take part, where to obtain more information and a full list of exhibitions and information points.

3.5.8 Copies of the leaflet were made available at public information points and on the consultation website. Copies were also sent directly to all political, statutory and non-statutory stakeholders, as well as identified local groups and community organisations.

Public exhibitions

3.5.9 Of the public exhibitions advertised in advance of the consultation, two were held in Zones 3 and 4. There was also one additional evening drop-in session in Ringford at the request of the community council. All were held at publicly accessible venues and locations. The locations and dates of these public exhibitions are detailed in Table 3.1 'List of exhibitions and drop-in events in areas affected by the KTR Project'.

Table 3.1 List of exhibitions and drop-in events in areas affected by the KTR Project

Date and times	Location
10 June, 2pm until 8pm	New Galloway Town Hall
18 June, 2pm until 8pm	Kirkcudbright Community Centre
24 August, 4pm until 8pm	Ringford Village Hall

3.5.10 The original public exhibitions were widely publicised through the project website, project leaflet, local newspaper advertising and letters sent directly to stakeholders.

3.5.11 At the public exhibitions and drop-in events, people were able to view SPEN's proposals and talk to the project team. Comprehensive information about the project was made available with reference copies of key project documents and large-scale maps on display. Copies of project leaflets, feedback forms and Freepost envelopes were available to take away, together with ancillary information regarding SPEN's other services and a leaflet produced by the Energy Networks Association about electric and magnetic fields (EMFs). Visuals of the banners used at the exhibitions are contained in Appendix M.

3.5.12 SPEN fielded consultation teams for each public exhibition to ensure as many people as possible had the opportunity to engage directly with the project team. The size of the consultation team averaged about 10 individuals depending on the location of the exhibition and the anticipated level of interest.

3.5.13 SPEN ensured the consultation team contained individuals with specialist expertise in key areas including planning, environment, health, construction (including overhead line, underground cable and substation construction) and the consultation process itself to help ensure as many people as possible received comprehensive answers to their questions.

3.5.14 Although people were encouraged to ask questions and share their views with the team, attendees at the exhibition were advised that consultation feedback was not being taken verbally and were encouraged to submit their formal responses via the official consultation channels.

Feedback form

3.5.15 A feedback form was developed for stakeholders and the public to provide their comments and formally register their views as part of the first round of consultation. The feedback form asked for opinions and information on the project, the preferred corridors, the possibility of removing existing overhead lines in some areas and the consultation process itself.

3.5.16 The feedback form included a number of open questions and one closed question with space for respondents to communicate views or comments in free text. Copies of the feedback form can be found in Appendix G.

Project website

3.5.17 The address for the project website is www.spendgsr.co.uk. The website provides comprehensive information about the project, a frequently asked questions section and maps of the consultation zones. All key project documents, together with lists of exhibitions and information points, printable maps and a printable feedback form are available for downloading from the website.

3.5.18 The website also allowed for online consultation and included a dedicated area where visitors could complete and submit the first round consultation feedback form. The website was regularly updated throughout the first round of consultation to reflect project updates, such as the extension of the consultation period, and will be continually updated as the project progresses.

3.5.19 During the first round of consultation, from the launch of the website until 1 September 2015, the website received 4,700 visits.

Media relations

3.5.20 To coincide with the launch of the first round of consultation, a press release (see Appendix N) was issued to the media throughout the project area on Friday 29 May. See Appendix O for a full list of media outlets that received the release.

3.5.21 A further press release was issued to the same media outlets on 17 July to announce the extension of the consultation to 31 August. See Appendix P for a copy of this press release.

Advertising and other promotion

3.5.22 To promote the first round of consultation, SPEN placed half-page advertisements in the public notices sections of local newspapers during the week commencing Monday 25 May, more than two weeks in advance of the first public exhibition. The newspapers' combined circulation areas covered the entire preferred corridors. See Appendix Q for a sample advert, as well as the newspapers and their publication dates.

3.5.23 The content of the adverts conformed with the requirements outlined in the Scottish Government Energy and Consents Deployment Unit *Good Practice Guidance* and included the location and description of the project; details as to where further information could be obtained; a statement explaining how and by when persons wishing to make comment to SPEN relating to the project might do so; and a statement that comments made to SPEN were not representations to the planning authority.

3.5.24 A free-standing A-board advertising the presence of a live exhibition was also produced for use outside venues on exhibition days and is shown in **Figure 3.1.**

Figure 3.1 A-board used at events

Inspection copies

3.5.25 Project information folders including a covering letter and inspection copies of the leaflet and key technical documents including the *Background to Need Case, Routeing and Consultation Document* and *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment*, were made available to view free of charge from 1 June 2015 at the locations listed in Table 3.2 'Locations of public information points in areas affected by the KTR Project'. Only those relevant to the revised KTR Project are listed.

Table 3.2 Locations of public information points in areas affected by the KTR Project

Dalry Library
Dumfries Planning Office
Kirkcudbright Customer Service Centre

Extension to first round of consultation

3.5.26 Towards the end of July, following requests from several individuals and political stakeholders for more time to consider the project information, SPEN decided to extend the duration of the first round of consultation by an additional five weeks until 31 August.

3.5.27 All residents in the consultation zones were advised by SPEN of the extended consultation period by letter. See Appendix R for a copy of this letter.

3.5.28 As the result of feedback received during the consultation, the letter was sent in a clearly-marked envelope. See Appendix S for a copy of the envelope.

3.5.29 The project website was updated to reflect the extension of the consultation period, including a NEWS banner mention on the *Introduction* page.

3.5.30 A further press release was issued to the local media on 17 July to announce the extension of the consultation period. See Appendix P for a copy of this press release. See Appendix O for a full media distribution list.

3.5.31 A new front cover and covering letter together with stickers to attach to the leaflet was posted to all public information points on 17 July.

3.5.32 At the request of Tongland and Ringford Community Council a further drop-in exhibition was held on 24 August, as outlined previously in Table 3.1. The format of these sessions was the same as the previous public exhibitions, but advertising and publicity was handled by the community council.

Close of the first round of consultation

3.5.33 The first round of non-statutory consultation closed on 31 August 2015. To allow time for the responses to be received, SPEN accepted postal feedback until 7 September 2015.

3.5.34 SPEN has listened to people's concerns and representations and believes that this feedback report represents a first step in addressing the issues that were raised during the first round of non-statutory consultation. Chapters 6 to 9 of this report summarise the feedback received which is relevant to the KTR Project.

3.6 Who SPEN consulted

3.6.1 This section describes the various groups of stakeholders relevant to the KTR Project that SPEN consulted during its first round of consultation. For a list of organisations in each group see Appendix T. For an example of one of the letters sent to stakeholders at the time of the launch of consultation see Appendix U.

Local authorities

3.6.2 Local authorities are statutory consultees in terms of the consenting process. The only local planning authority directly affected by the KTR Project is Dumfries and Galloway Council. SPEN offered the council the opportunity to take part in its first round of consultation.

3.6.3 Consultation and discussions with the authority have been extensive, regular and are ongoing. This includes meetings held with officers and members.

3.6.4 Prior to the start of consultation, SPEN offered bespoke briefings for local councillors. The presentation for Dumfries and Galloway Council elected members took place on 5 June 2015 at the council chamber in Kirkbank, English Street, Dumfries. SPEN also sent the planning authority a full suite of all the project's key consultation documents.

3.6.5 In line with the launch of the project, local authority members whose constituencies could be affected by the preferred corridors, or were due to attend a briefing about the project by SPEN, were sent information about the project by post and email. This included copies of the project leaflet and an invitation to attend the public exhibitions.

Other statutory consultees

3.6.6 A number of other organisations have been identified as statutory consultees in relation to projects of this nature. These and the local authority are part of the project's Statutory Stakeholder Liaison Group (SSLG) as explained in section 3.3. SPEN remained in regular contact with statutory consultees throughout the first round of consultation. Table 3.3 'Meetings with statutory consultees whose interests are affected by the KTR Project' provides a list of briefings during the first round of consultation. This list only concerns those statutory consultees whose interests are likely to be affected by the KTR Project.

Table 3.3 Meetings with statutory consultees whose interests are affected by the KTR Project

Date and location	Organisation
16 June 2014, Dumfries	Scottish Natural Heritage (with RSPB in attendance)
23 October 2014, Crossmichael	Scottish Natural Heritage (with RSPB in attendance)
13 March 2015, Dumfries	Statutory Stakeholder Liaison Group
29 April 2015, Dumfries	Statutory Stakeholder Liaison Group
5 June 2015, Dumfries	Elected members of Dumfries and Galloway Council
3 July 2015, Dumfries	Forestry Commission Scotland
29 July 2015, Dumfries	Dumfries and Galloway Council
13 August 2015, Newton Stewart	Forestry Commission Scotland
14 August 2015, Dumfries	Scottish Natural Heritage
28 October 2015, Dumfries	Statutory Stakeholder Liaison Group
2 December 2015, Dumfries	Statutory Stakeholder Liaison Group

3.6.7 In line with the launch of the project, statutory consultees were sent copies of the four key project consultation documents.

Community councils

3.6.8 Community councils are also statutory consultees. At the point of the project launch, SPEN sent information to potentially affected community councils about the project by letter and email. Ten of these were within the area affected by the KTR Project. This included the project leaflet and invitations for community councillors to attend one of the public exhibitions. A list of these community councils is included in Appendix T.

3.6.9 As the first round of consultation progressed, SPEN engaged with several community councillors who directly contacted SPEN, submitted feedback or spoke to a project team member at an exhibition.

3.6.10 Following the launch of the first round of consultation, SPEN conducted briefings with a number of community councils on request. See Table 3.4 'Details of meetings and briefings with community councils in the KTR Project area' for details of the councils that were briefed. SPEN remains in contact with community councils.

Table 3.4 Details of meetings and briefings with community and parish councils in the KTR Project area

Date and location	Body
9 July 2015, Balmaclellan	Balmaclellan Community Council
13 July 2015, New Galloway	The Royal Burgh of New Galloway and Kells Parish
24 August 2015, Ringford	Tongland and Ringford Community Council

Non-statutory consultees

3.6.11 In line with the launch of the project, SPEN sent key non-statutory consultees information about the project including CD copies of all the key project consultation documents outlined in paragraph 3.5.25. Nine of these key consultees have interests likely to be affected by the KTR Project.

3.6.12 Further non-statutory consultees were sent information about the project by letter and email. This included the project leaflet and invitations to attend one of the public exhibitions. Thirty-three of these further non-statutory consultees have interests likely to be affected by the KTR Project. A full list of them is included in Appendix T.

3.6.13 Following the launch of the first round of consultation, SPEN conducted briefings with a number of these non-statutory consultees on request. See Table 3.5 'Details of meetings and briefings with non-statutory consultees' for details. SPEN remains in contact with these organisations.

Table 3.5 Details of meetings and briefings with non-statutory consultees

Date	Body
16 June 2014, Dumfries	RSPB (with Scottish Natural Heritage)
23 October 2014, Crossmichael	RSPB (with Scottish Natural Heritage)
30 July 2015, Caerlaverock	Wildfowl and Wetlands Trust
12 August 2015, Dumfries	Galloway and Southern Ayrshire Biosphere

Local interest organisations and groups

3.6.14 In line with the launch of the project, SPEN sent information about the project by letter and email to local interest groups and other organisations representing community interests. There were 16 such groups which have interests likely to be affected by the KTR Project. The information included the project leaflet and invitations to attend one of the public exhibitions. A full list of these groups and organisations is included in Appendix T.

3.6.15 Following the launch of the first round of consultation, SPEN conducted briefings with a number of local interest organisations and groups on request. See Table 3.6 'Details of meetings and briefings with other organisations whose interests are likely to be affected by the KTR Project, held at their request' for details. SPEN remains in contact with these organisations.

Table 3.6 Details of meetings and briefings with other organisations whose interests are likely to be affected by the KTR Project, held at their request.

Date	Body
7 October 2015	Alan Jones representing Dumgal Against Pylons (ad hoc meeting)
15 October 2015, Mossdale	The Mossdale Community Group

3.6.16 Other interest organisations or groups which came forward after the launch of the consultation have been added to the project's stakeholder database for engagement in future rounds of consultation.

Local Members of Parliament (MPs) and Members of the Scottish Parliament (MSPs)

3.6.17 Due to the potential for the then sitting MPs to change at the UK General Election on 7 May 2015, it was decided to wait until new MPs had taken office before offering advance briefings on the project. For consistency MSPs were approached at the same time.

3.6.18 Letters and emails including project information and offering personal briefings were sent to the MP and eight MSPs whose constituencies could be affected by the preferred corridors in the KTR Project. They can be found in the list of stakeholders consulted in Appendix T.

3.6.19 The dates and locations of the briefings carried out at the request of the MP and MSPs for the KTR Project area are listed in Table 3.7 'MP and MSP briefings relevant to the KTR Project'. SPEN remains in regular contact with these representatives.

Table 3.7 MP and MSP briefings relevant to the KTR Project

Date/Location	Member/s
15 June 2015, Glasgow	Joan McAlpine MSP
30 July 2015, Castle Douglas	Alex Fergusson MP and Cllrs Finlay Carson and Gill Dykes
28 August 2015, by phone	Chic Brodie MSP
2 October 2015, Dumfries	Aileen McLeod MSP
7 October 2015, Dumfries	Richard Arkless MP
16 October 2015, SNP Conference	Joan McAlpine MSP and Richard Arkless MP
29 October 2015, Edinburgh	Graeme Pearson MSP

Local communities and members of the public

3.6.20 People living within the Consultation Zones 3 and 4 described in paragraph 3.4.5 were communicated with directly about the launch of the first round of consultation. Each received a copy of the project leaflet to their home address, which was identified using postcode mapping. As outlined in paragraphs 3.5.5 to 3.5.8, the project leaflet also invited people to attend a project exhibition and gave details about how to access more information via the project website or at a local information point.

3.6.21 The wider general population in Dumfries and Galloway was informed about the consultation using advertisements in the public notices sections of local newspapers, as described in paragraphs 3.5.22 and 3.5.23, as well as using press releases which resulted in a number of press and broadcast news items.

4. Process for managing responses

4.1 Mechanisms for feedback

4.1.1 An official feedback form was developed for respondents to formally register their views as part of the first round of non-statutory consultation. Copies of the feedback form can be found in Appendix G.

4.1.2 The feedback form was also provided online at the project website www.spendgsr.co.uk.

4.1.3 The project leaflet and website provided further information to help people provide feedback that was as informed as possible. Copies of the project leaflet can be found at Appendix F.

4.1.4 The feedback form contained a series of questions. Those questions relevant to the KTR Project sought views on the following:

- The project as a whole;
- The possibility of removing overhead lines in some places;
- The preferred corridors in sections from west to east; and
- The consultation process itself.

4.1.5 Representations were received from the public and local community organisations as well as statutory and non-statutory consultees, including elected representatives. Due to the large variation in the amount and level of detail contained in individual responses, there is a need for clear presentation and ease of reference. For the purpose of this feedback report, comments have been broadly summarised into themes and issues and are presented in Chapters 6 to 9. Further detail on feedback from specific stakeholder groups is contained in Appendices A to E.

4.1.6 Chapter 3 of this feedback report describes the methods of engagement used during the first round of consultation. There were a number of mechanisms by which responses to SPEN's proposals could be given to the project team during the consultation period. These included:

- Emails to the dedicated project email address;
- Completing the feedback forms, copies of which are available in Appendix G. The feedback form and the project leaflet (Appendix F), which provided information on completing the form, were available at the public exhibitions and the feedback form could be handed in at events or returned later using the project Freepost address. The feedback forms could also be completed and submitted online;
- Letters submitted via the Freepost address; and
- In discussion with a member of the project team, but only where this was the only appropriate mechanism for capturing an individual's feedback due to exceptional circumstances. Members of the public were discouraged from leaving verbal feedback either at exhibitions or by phone in order to minimise errors due to possible misinterpretation.

4.2 Processing responses and correspondence

4.2.1 Responses to the first round of consultation were received in two main formats, those that responded to the questions on the feedback form and those that were received by other means which included letter or email. As a number of the questions on the feedback form were open-ended and designed to allow for unconstrained comment on the proposals, it was felt that representations received in these separate formats could be analysed together.

4.2.2 A data protection statement informed the respondent that any comment made by them could be made available to certain other bodies for the purposes of the consultation and for creating reports. This included the Scottish Government and relevant planning authorities (although with the KTR Project, Dumfries and Galloway Council is the only relevant planning authority).

4.2.3 SPEN received a wide range of responses to its consultation that included responses to specific questions on the feedback form, responses that were brief and addressed only a single issue, and responses that were comprehensive, technical and related to a wide range of concerns and issues.

4.2.4 All responses were logged, assessed and processed before being analysed as described in section 4.3.

Logging procedure

4.2.5 Each consultation response was sent a standard acknowledgement and given a unique identification number.

4.2.6 Where indicated by the respondent, the contact details of those making representations were recorded and used to build a communication database.

Assessment procedure

4.2.7 All items of feedback were individually assessed to establish whether the correspondent had requested additional specific information in order to further develop their response. Where specifically requested in this way, further information was also sent. In the vast majority of cases, such requests received a substantive response within five working days.

Processing

4.2.8 Letters and paper feedback forms sent to the Freepost address were scanned, filed and the data entered into an analysis database.

4.2.9 Email submissions were filed and entered into the analysis database.

4.2.10 Online feedback forms were exported from the website and imported into the database.

4.2.11 Any further representations received were (and continue to be) recorded and reviewed. SPEN will also continue to re-evaluate decisions in light of any new considerations raised.

4.3 Analytical framework

4.3.1 SPEN's approach was to organise and analyse responses and then report on this in a way that enabled the issues raised to be easily understood.

4.3.2 Every individual point, issue or concern was identified and considered. A list of themes emerged against which each comment was recorded and coded. Location specific issues were also identified. The themes are shown in Table 4.1 'Themes for coding responses to the first round of consultation' and have been used to form the basic structure for recording feedback.

Table 4.1 Themes for coding responses to the first round of consultation

Theme	Description
Under sea option (B)	Suggestions to put the cable under the sea
Consultation and information (CI)	Comments on the consultation process and materials, current and future Requests for more information about the project
Costs (C)	Comments regarding cost of strategic options and other technologies, including suggestions and concerns Comments about how much should be spent and who pays (e.g. "cost should be of no concern relative to the environment", "SPEN should pick the cheapest option") How projects are funded, costs to consumer, general cost benefit analysis, lifetime costs
Engineering, design and construction (D)	Comments about the viability of different and emerging technology options, infrastructure, alternative tower design etc. Comments about local network technicalities, including resilience and connections to renewable sources, current and future Comments about the construction process, impacts and access to land Comments on carbon emissions linked to the erection and removal of infrastructure, recycling of materials Comments about land suitability, including current and proposed land use, areas used for recreation, water supply, flooding, etc.

Environment (E)	Comments about the natural and historic environment, including habitats, designated sites
Health, safety and security (H)	Comments on health and physical safety (e.g. accident risk, noise, light, EMFs) Low fly zones
Keep to the existing route (K)	Comments about keeping to existing overhead line routes rather than developing new ones
Location specific (L)	Comments relating to specific towns, villages and places of interest
Policy, principles and need case (N)	Comments on SPEN's approach (e.g. approach to routeing and siting) Comments on national policy issues, including energy generation Comments on project need case, condition of assets, capacity and connectivity to other parts of the UK, including Ofgem Comments on strategic options, how they were identified and SPEN's conclusions, including subsea Concern about the project leading to more wind farms
References to other sources (O)	Documents or sources of information etc.
Planning process (P)	Comments on the planning process, including timescales, landowner contact/negotiation and compensation
Routeing and siting (R)	Comments about the routeing and siting methodology Comments and suggestions about specific corridors and siting area options Alternative and suggested corridors or siting areas Cumulative effects in relation to other lines and wind farms etc.
Socio-economic (S)	Comments about potential impacts on local economic activity such as tourism, and effect on house values Other human factors such as stress The use of land for local recreation or pastimes
Taking down existing line (T)	Comments on the removal of existing lines
Undergrounding/overhead (U)	Preference for undergrounding, opposition to overhead lines, reasons for undergrounding/overhead
Visual impact (V)	Comments about loss of visual amenity, including screening
Other (Z)	Other general topics not covered above

4.3.3 These initial themes were then split into further sub-themes enabling SPEN to understand the broader context of the response. The use of this two-tiered coding framework (themes and codes) assisted the efficient analysis of the representations and assisted further in-depth interrogation of the findings.

4.3.4 Additional codes were used to capture issues in relation to specific corridors.

4.3.5 Each response to the consultation was systematically coded by the SPEN analysis team. This involved the allocation of the relevant sentence or paragraph in each response to the codes described above and the recording of this allocation in an analysis database. A single item of feedback could be allocated to multiple codes to reflect the different issues raised in that response.

4.4 Quality assurance

4.4.1 At the collation and analysis stage, SPEN carried out a number of quality assurance procedures. A single senior analyst was used to conduct the analysis to ensure consistent application of the themes and codes. The coding framework itself was regularly reviewed throughout the analysis period with expert input from SPEN's project team.

5. Overview of the feedback received in the first round

5.1 Representations received

5.1.1 This chapter explains how the responses from the stakeholders outlined in Chapter 3 have been summarised and presented in this report.

5.1.2 During the first round of non-statutory consultation, respondents were asked to comment on aspects of the proposed overhead line connection. Those relevant to the KTR Project included:

- Preferred corridors; and
- The removal of existing lines in some areas.

5.1.3 During the consultation period, 3 exhibitions or drop-in sessions were held in the area covered by the KTR Project. These took place between 9 June 2015 and 24 August 2015. A total of 135 visits were recorded at these public consultation events. Appendix V details the number of attendees at each consultation event.

5.1.4 A total of 1,638 representations were received through different response mechanisms, of which 239 made specific reference to the two consultation zones within the KTR Project, specifically Zones 3 and 4.

5.1.5 A total of 793 campaign letters were received in the form of alternative feedback pro formas, drawn up and circulated by members of the community. There were five types, although none made specific reference to Zones 3 and 4. Some featured tick boxes; others were in the form of a circulated list of bullet-pointed statements. All were processed, logged and analysed. The alternative feedback pro formas invited members of the public to support certain statements. With the tick-box pro formas, people ticked the boxes of statements they supported. Where no boxes were ticked, SPEN has assumed the respondent to be in support of all statements on the pro forma. On some pro formas people had written additional comments, including one relating to Zone 3. All comments and statements have been considered and are addressed within the summaries in this report. Examples of the five pro formas received are contained in Appendix W.

5.1.6 The Mossdale Community Group submitted feedback using a standard detailed letter, 46 copies of which were sent in by individual members of the group. These have not been treated as pro formas. Each letter has been assessed separately and any differences in comments recorded and considered.

5.1.7 Table 5.1 'Representations received between 8 June 2015 and 7 September 2015' identifies the total number of representations received through the different response mechanisms. The number in brackets indicates how many of these featured comments related specifically to Zones 3 and 4.

Table 5.1 Representations received between 8 June 2015 and 7 September 2015

Response type	Count
Hard copy feedback forms	219 (91)
Online feedback forms	206 (50)
Alternative pro forma forms	793 (2)
Emails	208 (44)
Letters	209 (52)
Petitions	3 (0)
Other	0

5.1.8 Eleven responses received were assessed as null responses. A description of the null response types is below:

- Duplicate - identical copy of feedback already received.

5.2 Stakeholder responses

5.2.1 A total of 110 statutory and non-statutory consultees, local interest groups and elected representatives made representations either individually or jointly during the first round of consultation. Dumfries and Galloway Council's representation contained responses from four officers, the Landscape Architect, Biodiversity Officer, and officials from the Countryside and Access section and the Contaminated Land section.

5.2.2 A total of 34 community councils in Dumfries and Galloway submitted a joint response to the consultation. Of these, 17 also submitted individual responses, as indicated below. In addition, 11 members of the Dumfries and Galloway Scottish Conservative and Unionist Party submitted a joint representation. None of these submitted a separate individual response.

5.2.3 Responses were received from a number of stakeholders. Those relevant to the KTR Project are as follows:

Statutory consultees:

- Dumfries and Galloway Council
- Forestry Commission
- Historic Scotland
- Scottish Natural Heritage
- SEPA

Non-statutory consultees:

- The Coal Authority
- Galloway and Southern Ayrshire Biosphere Partnership Board
- John Muir Trust
- Ministry of Defence, Defence Infrastructure Organisation
- Mountaineering Council of Scotland
- The National Trust for Scotland
- RSPB Scotland
- Scottish Water
- Scottish Wildlife Trust
- Scotways
- Transport Scotland
- Wildfowl and Wetland Trust, Caerlaverock
- The Woodland Trust

Community Councils:

Italics indicate a council which has signed the joint response,* indicates a council within Zones 3 and 4.

- *Auldgirth and District Community Council*
- **Borgue Community Council*
- *Brydekirk and District Community Council*
- *Canonbie and District Community Council*
- **Carsphairn Community Council*
- *Castle Douglas Community Council*
- *Closeburn Community Council*
- *Corsock and Kirkpatrick-Durham Community Council*
- *Cree Valley Community Council*
- **Crossmichael and District Community Council*
- *Cummertrees and Cummertrees West Community Council*
- *Dalbeattie Community Council*
- **Dalry Community Council*
- *Dalton and Carrutherstown Community Council*
- *Dunscore Community Council*
- *Gatehouse of Fleet Community Council*
- *Hoddom and Ecclefechan Community Council*
- *Keir Community Council*
- **Kelton Community Council*
- *Kirkbean Community Council*
- *Kirkcowan Community Council*
- *Kirkmahoe Community Council*
- *Kirkmaiden Community Council*
- *Kirkpatrick Juxta Community Council*

- *Kirtle and Eaglesfield Community Council*
- *Lochside and Woodlands Community Council*
- *Middlebie and Waterbeck Community Council*
- **Parton Community Council*
- *The Royal Burgh of Annan Community Council*
- *The Royal Burgh of Lochmaben and District Community Council*
- *The Royal Burgh of New Galloway & Kells Community Council
- *The Royal Burgh of Whithorn and District Community Council*
- *Ruthwell & Clarencefield Community Council*
- *Tinwald Parish Community Council*
- *Troqueer Landward Community Council*

Other local interest groups and organisations:

- D&G Outdoor Access Forum
- Dumgal Against Pylons
- Galloway Fisheries Trust
- GLARE
- Historical and Covenanters Trail Group
- Newton Stewart and District Angling Association
- Nith District Salmon Fishery Board
- Scottish Campaign for National Parks
- The Landmark Trust
- The Mossdale Community Group

Elected representatives (MEPs, MPs, MSPs and local authority members):

Italics indicate a signatory to the joint submission by members of the Dumfries and Galloway Scottish Conservative and Unionist Party

- *Ian Duncan – Conservative MEP for Scotland*
- *Rt Hon David Mundell – MP for Dumfriesshire, Clydesdale and Tweeddale*
- Richard Arkless – MP for Dumfries and Galloway
- *Rt Hon Alex Fergusson – MSP for Galloway and West Dumfries*
- Aileen McLeod – MSP for South Scotland
- Claudia Beamish – MSP for South Scotland
- Chic Brodie – MSP for South Scotland
- Graeme Pearson – MSP for South Scotland
- Jim Hume – MSP for South Scotland
- Joan McAlpine – MSP for South Scotland
- *Cllr Dennis Male – Dumfries and Galloway Council (Annandale East and Eskdale)*
- *Cllr Finlay Carson –Dumfries and Galloway Council (Castle Douglas and Glenkens)*
- *Cllr Gail McGregor –Dumfries and Galloway Council (Annandale North)*

- *Cllr Gill Dykes –Dumfries and Galloway Council (Mid and Upper Nithsdale)*
- *Cllr Graham Nicol – Dumfries and Galloway Council (Mid Galloway)*
- *Cllr Ian Blake – Dumfries and Galloway Council (Abbey)*
- *Cllr Ivor Hyslop – Dumfries and Galloway Council (Lochar)*
- *Cllr Patsy Gilroy – Dumfries and Galloway Council (Dee)*

5.3 Presentation of responses

5.3.1 Feedback from all respondents to the first round of consultation is summarised in this report.

5.3.2 Although SPEN will take into account all representations received, it is not possible to list every single comment in this report.

5.3.3 From the 1,638 consultation responses received (including the 793 alternative feedback pro forms) the themes outlined in Table 4.1 emerged. Summarised representations in these themes have been grouped under the following four headings in subsequent chapters of this report:

- Need case and strategic options, Chapter 6;
- Routeing and siting methodology, Chapter 7;
- Specific comments relating to those consultation zones applicable to the KTR Project (Zones 3 and 4), Chapter 8; and
- Consultation and information, Chapter 9.

5.3.4 Although these chapters only include the summarised responses from the consultation, the project team has taken into account all the responses received in full and continues to do so.

5.3.5 For further clarity and transparency, summarised feedback from specific key stakeholders and groups are contained in the appendices as outlined below.

5.3.6 In the case of feedback provided by statutory consultees, a number of non-statutory consultees and MPs and MSPs relevant to the KTR Project, many of whom provided expert or issue-specific information, these responses were considered and are reproduced in this report in their entirety in Appendices A, B and E as follows:

- Appendix A shows summaries of responses from individual statutory stakeholders;
- Appendix B shows summaries of responses from individual non-statutory stakeholders; and
- Appendix E shows summaries of formal responses from individual elected members.

5.3.7 Like the responses from members of the public, feedback from community councils and local organisations, bodies and interest groups was more wide-ranging, containing varying levels of detail across a large number of issues both general and specific. Their summarised representations relevant to the KTR Project have been captured in Chapters 6 to 9. However, their responses have been split out for added clarification and are shown in Appendices C and D as follows:

- Appendix C shows responses from community councils grouped and summarised under the same four themed headings as the main report; and
- Appendix D shows responses from local interest groups, bodies and organisations grouped and summarised under the same four themed headings as the main report.

5.4 Comments received following the close of consultation

5.4.1 The first round of consultation was held between 8 June 2015 and 31 August 2015. SPEN allowed an additional week until 7 September 2015 for the arrival of postal feedback. Representations received after 7 September 2015 up to the publication of this report are considered as 'post consultation feedback'.

5.4.2 SPEN logged, analysed and considered all responses received after 7 September 2015 as part of its wider consideration and analysis of consultation feedback. Because of the very small number of items, all responses received up until the end of October have been included in this report.

5.4.3 Consultation feedback received after 7 September 2015 raised matters/themes which were consistent with consultation feedback already received during the formal consultation period. One detailed item from the Scottish Campaign for National Parks was received, although the majority of feedback was submitted by members of the public.

6. Summary of comments relating to need case and strategic options

6.1 Overview

6.1.1 The following themes emerged in the comments received from the feedback (including the alternative pro formas).

- National and local policy;
- The case for replacing ageing infrastructure;
- The case for increasing transmission capacity;
- Strategic options (including comments about subsea);
- Embedded generation;
- Undergrounding;
- Refurbishing or upgrading existing infrastructure; and
- Cost.

6.1.2 SPEN has considered the comments and responded to them below.

6.2 National and local policy

6.2.1 The topics which are identified under this theme include:

- The project in principle and Government policy;
- DECC's announcement on subsidies;
- Changes in local planning determinations for wind farms; and
- Local vs national benefit.

The project in principle and Government policy

Summary of comments received

6.2.2 Some respondents acknowledged a need for the project in principle; however, others disagreed for a range of reasons which are covered below.

6.2.3 There were a range of views about the Scottish Government's energy policy to achieve 100 per cent electricity demand equivalent from renewables by 2020, which was seen as a key driver.

6.2.4 Comments included:

- A belief that some other countries had abandoned their policy of building wind farms;
- A view that Scotland had enough electricity for its own needs;
- That society should concentrate on reducing consumption;
- That required generation should be more equitably spread across Scottish regions;
- That decisions should be made locally; and
- That decisions on new generation should pay heed to available grid capacity.

SPEN's response

6.2.5 Energy policy is determined by Government, and SPEN responds to changes and developments as required.

6.2.6 As the Transmission Owner responsible for the transmission of electricity in central and southern Scotland, we are regulated by the Office of Gas and Electricity Markets (Ofgem). Ofgem regulates the monopoly elements of the electricity market and limits the amount by which electricity companies like SPEN can increase costs, stipulating the level of performance we must achieve.

6.2.7 Our role is to develop and maintain an efficient, coordinated and economical electricity transmission system for existing and future consumers. As part of our transmission licence obligations, we have an obligation to connect new electricity generation to the network wherever it is contracted and we cannot dictate where new generation is built.

6.2.8 How much generation will ultimately connect to the network and where this will be located will be influenced by many factors, including those summarised in section 6.2.17. To ensure that our proposals are appropriate we test them against a range of equally credible future scenarios. The costs for each solution are compared to the expected benefits from that solution for each credible scenario. The net position (costs minus benefits) can then be compared and the most robust solution selected.

6.2.9 Through the development of the project, we have considered a range of technical options which allow us to fulfil our licence obligations above. These strategic options have been filtered balancing environmental, technical and economic criteria into a smaller subset which are subject to a more detailed cost-benefit analysis (CBA). The future scenarios are incorporated into the CBA to ensure that the most appropriate reinforcement solution is identified.

DECC's announcement on subsidies

Summary of comments received

6.2.10 A significant number of people pointed to the recent announcement by the UK Government's Department of Energy and Climate Change (DECC) that the Renewables Obligation will be closed to new onshore wind farms from April 2016, and a belief that it rendered the DGSR Project over-engineered, or premature, or that there should be a moratorium while the situation is reviewed. Although the comments relate to the larger DGSR Project, the comments have nonetheless been applied in the context of the Kendoon to Tongland 132kV Reinforcement (KTR) Project.

SPEN's response

6.2.11 The changes in energy policy and its potential impact on the level of renewable generation connecting in the region are important considerations for the KTR Project. Our timescales for delivering a solution are set by our goal of replacing the ageing assets before their performance begins to deteriorate. See section 6.3 The case for replacing ageing infrastructure.

6.2.12 We are continually reviewing our detailed analysis of network capacity and system constraints, and developing our technical options against a number of possible future generation scenarios. These generation scenarios, representing differing levels of generation growth, have been developed in order to fully 'stress test' the requirement for each option. Please refer to the answers in relation to The project in principle and Government policy, from paragraphs 6.2.5 to 6.2.9.

6.2.13 The contracted generation position is under constant review and the KTR Project allows an incremental approach to investment to be adopted where possible. However, we need to progress this project now as our role is to ensure that assets with high priority for replacement are addressed before performance deteriorates.

6.2.14 We have consulted directly with all those contracted to connect to our network since the policy announcements and continue to engage with them on a regular basis. Energy policy changes are considered in the scenarios against which we are modelling our cost-benefit analysis to determine the appropriate capacity to meet the future generation position.

6.2.15 There will always be uncertainty about the volume of generation that will connect in the future. However, we need to develop the KTR Project now to secure supplies to existing customers. We will continue to monitor and adapt as best we can to deliver the appropriate solution to meet the changing background generation picture. Regulatory pressure and stakeholder needs are enshrined in our licence obligations and ensure that we strive to achieve the optimum outcome.

Changes in local planning determinations for wind farms

Summary of comments received

6.2.16 Respondents expressed a view that increasing numbers of wind farm applications in Dumfries and Galloway were being refused, for reasons including a lack of suitable sites, landscape capacity, amenity or because the area has reached saturation point. It was suggested that new generation should be encouraged further north, where it was perceived to be less scenic, infrastructure was already in place, and communities were more accepting of wind farm development.

SPEN's response

6.2.17 Our role is to maintain, operate and invest in the network to secure a safe, reliable, and economic service for current and future consumers. As part of our licence obligations, we have an obligation to connect new electricity generation to the network wherever it is contracted and we cannot dictate where new generation is built. Factors such as the potential for wind, the planning process, stakeholder engagement and government policy all influence where generation is actually built.

6.2.18 Energy policy is a matter determined by Government, and SPEN responds to changes and developments as required.

Local vs national benefit

6.2.19 There were comments that the project offered little benefit to local people, and that local demand alone did not justify the project. As part of this, respondents felt that Dumfries and Galloway was being used a conduit for the benefit of other regions, particularly England but also possibly Northern Ireland or even Europe.

SPEN's response

6.2.20 The principal benefit for local people will be the increased reliability of a network which, at up to 80 years old, is nearing the end of its operational life and needs to be replaced. Please also see section 6.3 ***The case for replacing ageing infrastructure***.

6.2.21 On a wider level, society as a whole will benefit from the ability to connect new sources of low carbon generation to the electricity grid which will help the UK and Scotland achieve their carbon reduction targets. It will help secure the nation's future electricity supplies as some 20GW of existing nuclear and fossil fuel generation is due to close this decade.

6.2.22 Both the Scottish and UK Governments recognise the need for new electricity transmission and distribution infrastructure as a matter of policy.

6.3 The case for replacing ageing infrastructure

Summary of comments received

6.3.1 There was a feeling that local needs should be the only justification for the project and that these could be served by the current line with components being upgraded or replaced as necessary.

6.3.2 Some people questioned SPEN's assessment of the condition of the existing lines, and pointed out that there were many older still functioning lines in other parts of Scotland. There was a feeling that SPEN could maintain the existing lines.

SPEN's response

6.3.3 One of the key drivers for the project is to replace ageing infrastructure which is approaching the end of its life and improve security of supply to the people in the area. The electricity transmission network, by its nature, delivers benefits to a wide area, by providing secure electricity supplies to homes and businesses. The network facilitates the transfer of energy from multiple generation sources and across multiple routes.

6.3.4 An ageing network is increasingly prone to problems and needs more maintenance. Without investment, this could mean faults and power cuts. That's what we mean by securing supplies and making sure they continue to be as reliable as people expect. By replacing this ageing infrastructure with new assets, we can ensure the needs of existing and future users are met.

6.3.5 The current transmission network in Dumfries and Galloway is approaching the end of its operational life and is beyond economic refurbishment. Parts date back to the 1930s when the hydro-electric power stations were built. Although it's served communities well, we need to improve it to make sure we can guarantee secure, reliable electricity supplies for the 83,000 people who rely on it now, and for generations to come.

6.3.6 Although the network is well-maintained, in-depth assessment of the health and condition of our assets and the performance and criticality of our circuits shows that replacement needs to be carried out soon. We assess all of the assets on our network on a regular basis, taking into account condition, design parameters and criticality as well as age. Circuit performance is also considered so that we can identify necessary improvements to our existing infrastructure to ensure that the transmission network continues to deliver the reliability, security and performance levels demanded.

6.3.7 This complex engineering information is used to develop our investment programmes determined by asset health and prioritised by risk assessment. Some parts of Dumfries and Galloway's network have the highest risk rating, which means that they need to be improved to avoid increasing numbers of problems in the future.

6.3.8 The life of overhead lines can be extended by replacing key components that are more susceptible to wear and by protecting the steelwork. This is no longer an appropriate solution in Dumfries and Galloway for the following reasons:

- Component by component refurbishment is generally carried out by replacing the insulator strings and fittings and by pulling in new sections of conductors (wires) i.e. components that are not integral to the structure of the tower. Our assessment of the lines in Dumfries and Galloway is that the tower steelwork and foundations now need significant upgrading;
- The majority of the overhead lines that we are proposing to replace are of a 'single circuit' construction and the replacement of the major structural sections involves the removal of conductors. This would require the whole circuit to be de-energised. To do extensive work under these circumstances would put supplies to homes and businesses in the area under risk of extended periods without power; and
- The maximum capacity that can be utilised with the current configuration is not sufficient to carry all the output of the currently connected generation in all circumstances. This is not sustainable and an improved configuration is required.

6.4 The case for increasing transmission capacity

6.4.1 The topics which are identified under this theme include:

- General comments on capacity;
- Changes to energy policy and power station provision;
- UK energy demand;
- Wind turbine efficiency;
- Pattern of renewable development; and
- The case for improved connectivity for the Moyle interconnector

General comments

Summary of comments received

6.4.2 There were comments that the need for additional capacity needed further justification, or should be validated by an independent body. There was an opinion that increased energy efficiency would reduce the need for extra capacity.

6.4.3 There was concern that the increased availability of transmission capacity could encourage more wind farm applications which had previously been constrained.

SPEN's response

6.4.4 As the Transmission Operator responsible for the transmission of electricity in central and southern Scotland, we are regulated by the Office of Gas and Electricity Markets (Ofgem). Ofgem regulates the monopoly elements of the electricity market and limits the amount by which electricity companies like SPEN can increase costs, stipulating the level of performance we must achieve.

6.4.5 Our role is to develop and maintain an efficient, coordinated and economical electricity transmission system for existing and future consumers. As part of our licence obligations, we have an obligation to connect new electricity generation to the network wherever it is contracted and we cannot dictate where new generation is built.

6.4.6 The amount of generation that is likely to connect to any proposed reinforcement project helps to determine which technical option is taken forward. We have developed a range of equally credible scenarios to enable us to examine how different amounts of new generation connecting to the network in future would affect each potential option for reinforcement. The scenarios have taken account of potential influencing factors such as the removal of subsidies for onshore wind (common to all scenarios), electricity wholesale/commodity prices and the planning and consenting regime.

6.4.7 Through the development of the project, we have considered a large range of technical options which allow us to fulfil our licence obligations above. These strategic options have been filtered balancing environmental, technical and economic criteria into a smaller subset which are subject to a more detailed cost-benefit analysis (CBA). The generation scenarios are incorporated into the CBA to ensure that optimum reinforcement solution is identified. Ofgem will determine whether the project proposals are economic and efficient, and represent value for the GB consumer.

6.4.8 The upgrades to the network are not related specifically to any individual renewable energy projects. The project will increase capacity for connections, but this is not restricted to renewable energy projects; it could also support business and industrial growth in the region.

6.4.9 Our licence to transmit electricity requires us to connect new generators to the electricity network. For confidentiality reasons, we are not at liberty to disclose any applications put forward by any developers. This information will be available from the energy generation companies or developers themselves. However, some information is publicly available online as follows:

- For information on generation connected or contracted to the distribution network in the ScottishPower distribution licence area, http://www.spenergynetworks.co.uk/pages/long_term_development_statement.asp;
- For information on generation connected or contracted to the transmission system, http://www2.nationalgrid.com/UK/Services/Electricity-connections/Industry-products/TEC-Register/.

Changes to energy policy and power station provision

Summary of comments received

6.4.10 Respondents held a view that future developments in energy or planning policy or technology could render the new electricity line unnecessary.

6.4.11 Some felt that recent changes to power station provision would affect the need for the project, with the possible result that more electricity would need to be transported north rather than south.

SPEN's response

6.4.12 Energy policy is a matter determined by Government, and SPEN responds to changes and developments as required. Our role is to develop and maintain an efficient, coordinated and economical electricity transmission system for existing and future consumers.

6.4.13 The closure of fossil fuel generation plants has a significant impact on meeting the demand in Scotland. However, the GB transmission system is a single market and, while in the past the electricity flows between Scotland and England were predominantly north to south, this will increasingly be bi-directional in the future. The flows will be dependent on wind generation and, when the wind is blowing in Scotland, there will be significantly more energy being produced than ever before, but when the wind is not blowing then Scotland will be a net importer of electricity.

6.4.14 As part of our assessment of the level of generation that is likely to connect to any proposed reinforcement in the region, a set of generation scenarios has been developed which represent differing paths of generation growth. We have developed a range of equally credible scenarios to enable us to examine how different amounts of new generation connecting to the network in future would affect each potential option for reinforcement.

UK energy demand

Summary of comments received

6.4.15 Some people questioned if demand for electricity from England would be sustained due to factors like England's efforts to reduce consumption, its programme of building new power stations and the current and potentially continuingly low price of oil.

SPEN's response

6.4.16 Potential changes in energy use across GB are inherent in the scenarios we have used to test the network options. As energy policy applies GB-wide, we have assumed consumer behaviour does not vary by geography.

Wind turbine efficiency

Summary of comments received

6.4.17 Respondents were concerned that the project did not take account of the lifespan of wind turbines and their decline in efficiency over a number of years. There was also a belief that, due to the intermittent nature of wind, the maximum output from wind farms was rarely achieved. As a result of this, it was felt the project was over-engineered.

SPEN's response

6.4.18 The upgrades to the network are not related specifically to any individual renewable energy projects. Instead they cater for the generation portfolio as a whole. Generation scenarios and network constraints will be continuously reviewed to ensure the most appropriate network is built.

6.4.19 The intermittency of wind is taken into consideration in our cost-benefit analysis and has had a material impact on the conclusion reached.

Pattern of renewable development

Summary of comments received

6.4.20 Some people expressed a belief that most consented wind farms would be in the west of Dumfries and Galloway, with less change in the east of the region. There was a view that the project location should align with the expected new generation or that other options, such as subsea, should be used.

SPEN's response

6.4.21 As part of our assessment of the level of generation that is likely to connect to any proposed reinforcement in the region, a set of generation scenarios has been developed which represent differing paths of generation growth. A comprehensive database has been created of generation projects of all sizes in the Dumfries and Galloway area. There are currently restrictions on generation, including small projects, in the east of the region which prevent connection of these projects. The proposed infrastructure corridors have been developed following consideration of the location of existing infrastructure, the contracted generation portfolio as a whole and the future needs of the transmission network.

The case for improved connectivity for the Moyle interconnector

Summary of comments received

6.4.22 Respondents recognised the need for the Moyle interconnector to operate at maximum technical capacity, but many favoured a subsea link direct to where the electricity is currently needed in the south.

6.4.23 There was a suggestion that the interconnector mostly exported rather than imported electricity.

6.4.24 The long-term viability of the Moyle interconnector was questioned.

SPEN's response

6.4.25 The Moyle interconnector agreement allows the import of electricity to Scotland of up to 360MW but it has a technical capability to import and export 500MW. The level of renewable generation that is being connected in south west Scotland and the limited capacity of SPEN's network in this area is increasingly constraining the interconnector's operation and from 2018 this import capacity will be limited to 80MW.

6.4.26 The Moyle interconnector is owned and operated by Mutual Energy and it is not appropriate for us to comment on the viability or otherwise of any particular generator or interconnector. In general terms, however, we can highlight that interconnection is increasingly important to Great Britain based on the National Grid's publication of the *2015/16 Winter Outlook Report* on 15 October 2015. This report explains that interconnectors (from Ireland and Europe) are now assumed to contribute 1.1GW of net imports, compared to a net of zero in previous years. The cost-benefit analysis undertaken on the Auchencrosh to Harker proposal included an economic assessment of the benefits of providing capacity against the constraint costs for the Moyle interconnector.

6.4.27 The KTR Project now being proposed does not provide any additional capacity for the Moyle interconnector.

6.5 Strategic options

Summary of comments received

6.5.1 There was a view that SPEN was moving forward with a proposal for an overhead line solution without having provided sufficient evidence why it was the most appropriate solution.

6.5.2 It was felt that SPEN should have provided detailed assessments of a range of alternative options like subsea or underground cabling, as well as a 'do nothing' or a 'do minimum' option, to provide evidence in support of its strategic decision-making.

6.5.3 Respondents felt SPEN had an obligation to Ofgem to demonstrate it had considered and consulted on alternative options and to be able to justify the costs associated with protecting visual amenities.

SPEN's response

6.5.4 As described in our original *Background to Need Case* document (2015), the DGSR Project had three main drivers:

- Replacement of ageing assets approaching end of life while maintaining security of supply;
- Provision of additional network capacity to enable connection of renewable generation; and
- Providing the Moyle interconnector capacity in accordance with its design rather than commercial capability.

6.5.5 Through the development of the project, we considered a wide range of strategic options in order to develop a proposal which would have addressed all of the project drivers shown above. These strategic options, which included 'do nothing' and 'do minimum' options, covered different network designs, technologies and voltage levels. Alternative technologies that have been assessed include subsea options. Each strategic option was assessed against the same environmental, technical and economic criteria. The development of the options has considered the location of existing infrastructure, the contracted generation portfolio as a whole and the future needs of the transmission network.

6.5.6 The Auchencrosh to Harker proposal best met all the project drivers in modernising the existing transmission network, connecting new generation and allowing the Moyle interconnector to operate to its full design capacity.

6.5.7 Options to utilise a subsea cable were considered at an early stage of the project and re-considered in response to the consultation responses. The subsea option is not preferred on the basis that it does not meet one of the projects main drivers – namely it does not facilitate the replacement of the equipment that feeds the region. Additionally, this option is more expensive than onshore options that provide the same benefit.

6.5.8 The outcome of the design, optioneering and cost-benefit analysis demonstrates the initial proposal of a new overhead line from Auchencrosh to Harker was not the most economical to progress at this time and that the KTR Project, which focusses on replacement of existing 132kV transmission assets and provides some additional capacity for contracted generation, is the recommended option to progress at this time. Ofgem will determine whether the strategic options that we have considered are appropriate through the project submission.

6.5.9 Subsea cabling is no longer relevant to the KTR Project which has a reduced scope to modernise the existing transmission network and connect new generation.

6.6 Embedded generation

Summary of comments received

6.6.1 Some felt locally-based embedded generation such as photovoltaics, or other forms of renewable generation like hydro schemes, could or should be developed to remove the need for large-scale transmission.

SPEN's response

6.6.2 There is more than 339MW of renewable generation connected to the Dumfries and Galloway network at the moment. In addition, we currently have contracted new generation of over 205MW. These connections are mainly wind with a small amount of photovoltaics (or solar), and some of them are as small as 100kW. We cannot dictate what or where new electricity generation is built but we have an obligation to make the transmission system available to generators wishing to connect to it and to ensure the network is fit for purpose, including undertaking appropriate reinforcements. Within Dumfries and Galloway currently, the area has more generation than the local demand, hence any new generation, no matter what size, will increase the loading on the local network and thus the requirement for new infrastructure.

6.6.3 As owner of the transmission network, we are obliged under our licence to offer a connection to new generation of whatever type, so long as it is economic and efficient to do so, and must treat all applications equitably. The drive for a particular type of generation is influenced by factors such as market conditions, regulation, the planning process, stakeholder engagement, Government policy, etc.

6.7 Undergrounding

6.7.1 The topics which are identified under this theme include:

- Approach to undergrounding;
- Planning considerations;
- Approach outside UK; and
- Suggested routes for underground cables.

Approach to undergrounding

Summary of comments received

6.7.2 There was opposition to overhead line development owing to perceived environmental, landscape, visual, economic and health effects, which it was felt could be alleviated by undergrounding.

6.7.3 There was a belief that undergrounding would help SPEN meet its obligations under Schedule 9 to the Electricity Act 1989 to "*have regard to the desirability of preserving natural beauty*".

6.7.4 There were concerns about delaying a decision on undergrounding until a later stage of the project on the basis that routes which could be made acceptable by undergrounding would have already been discounted.

6.7.5 Respondents suggested that if a subsea cable was used to provide the bulk of the additional capacity needed, any remaining needs on land could be met by lower voltage cables and that these were easier and less disruptive to install underground.

6.7.6 People felt that any new lines in previously unspoilt areas should be put underground, and where lines were being replaced, the new ones should be put underground as well. Other areas considered suitable for undergrounding included scenic or built-up areas, agricultural land or wherever communities requested it. Some felt existing lines outside the scope of the project should also be considered for undergrounding.

6.7.7 Although acknowledging the disruption caused by installing lines underground, some people felt the land would recover and vegetation grow back, leaving no visual impact in the long term, as with pipelines.

6.7.8 There were concerns that preference for an overhead rather than an underground solution was due to cost and a suggestion that SPEN had financial links with companies that build overhead lines.

6.7.9 It was recognised that there was an additional need to keep underground cables cool, and a suggestion that heat exchange technology could be used for the benefit of the local community.

SPEN's response

6.7.10 We take our responsibilities to the public and the environment seriously. We adopt a proactive approach, balancing environmental considerations with the need to remain competitive and to provide services at a cost that customers can afford.

6.7.11 High voltage, high capacity overhead lines are the economic and reliable choice for the bulk transmission of electricity throughout the world. It is therefore our view that wherever practical, an overhead line approach is taken when planning and designing major electricity infrastructure projects such as this. However, we appreciate that there are specific circumstances in which an underground approach should be considered. If, through the routeing process, it is determined that an underground cable section is required then the approach is to minimise the length of underground cable necessary to overcome the constraint to routeing. This must be consistent with a balance between technical and economic viability, deliverability and environmental considerations.

6.7.12 Our overall approach is based on the premise that the major effect of an overhead line is visual. This is as a result of its scale relative to objects in the vicinity such as buildings and trees, and that there is no technical way of reducing this other than choice of towers, and only limited ways of achieving screening through planting. The most effective way of causing the least visual disturbance is by careful routeing.

6.7.13 An underground cable has different technical requirements and environmental considerations than those for an overhead line. For example, an underground cable will have less visual impact than an overhead line but may have greater impact on ecological habitats and species and on archaeological remains, given the level of ground disturbance. For these reasons, the route for an underground cable may be different from that of an overhead line.

6.7.14 Our Schedule 9 Statement sets out how we will meet the environmental duties placed upon us and can be found in Appendix H. The statement also refers to the application of best practice methods to assess the environmental impacts of proposals and to identify appropriate mitigation measures. Adherence to our Schedule 9 obligations is reflected in our approach to routeing which takes into account landscape, visual, environmental, economic and technical factors to route and design a project which causes, on balance, the least disturbance to people and the environment. You can find out more about this by referring to our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment*. Our *Routeing and Consultation Document* explains how we have followed this approach in identifying our preferred corridors for this project.

6.7.15 Our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* explains the process we go through to identify and appraise potential areas for overhead lines and the stage at which we might consider an underground alternative, and reflects our adherence to Schedule 9 requirements. We are not yet at the stage of considering an actual route or making detailed decisions on construction. Further assessments and consultations will help us identify if there are any sections where undergrounding should be the preferred option.

6.7.16 The development of suitable overhead line routes is part of an iterative and methodical process. If constraints emerged at a future stage of the process which made a particular section of overhead line route impossible, we would need to look anew at alternatives. This could include re-examining previously discounted areas because the routeing methodology for underground cables is different to that for an overhead line.

6.7.17 SPEN will make a clear and transparent decision on the undergrounding of a section of line. This will take into account feedback from consultations with stakeholders and the public in relation to the protection of a particular resource in terms of the benefits or drawbacks of underground cable as an alternative to an overhead line. This decision will take into account the benefit, in planning terms, that could be achieved through undergrounding, without incurring excessive cost, and the effects of the technical issues associated with undergrounding on the overall reliability and availability of the connection, the risks to economic viability, including capital and maintenance costs, and deliverability of the project.

6.7.18 With regards to cost, please also see section 6.9 ***Cost***. SPEN is committed to fairness and has a transparent procurement process in accordance with European procurement laws.

6.7.19 Heat exchange through water pipes laid alongside high voltage transmission cables has been used to improve electrical ratings in certain circumstances, but examples are not common. Although technically feasible, using this heat exchange technology for the benefit of the local community would require water pipes in the cable trench and additional heat exchange plant above ground. Consideration would also have to be given to the location of this technology and practical applications for use in an urban or rural context.

Planning considerations

Summary of comments received

6.7.20 There were a number of comments that local schemes to place electricity connections underground may have or should have set a planning precedent which the project should follow. It was pointed out that *The 2011 Dumfries and Galloway Wind Farm Landscape Capacity Study* recommends that the introduction of any new electricity lines should be avoided and existing and additional electricity supply cables should be undergrounded.

6.7.21 There was a belief that the project would contravene a number of local planning policies, including development in Regional Scenic Areas (RSAs), and that planning consent would be simpler for an underground cable.

SPEN's response

6.7.22 Our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* explains the process we go through to identify and appraise potential areas for overhead lines and the stage at which we might consider an underground alternative, and reflects our adherence to Schedule 9 duties. We are not yet at the stage of considering an actual route or making detailed decisions on construction. Further assessments and consultations will help us identify if there are any sections where undergrounding should be the preferred option. Section 6.5 of *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* provides a guide for the circumstances in which SPEN will consider undergrounding.

6.7.23 Planning policies contained within the relevant Local Development Plan (LDP) in Scotland will be material considerations in determining the consents for the KTR Project. Hence, we must have due regard to these policies in bringing forward our proposals and we will continue to review relevant LDP policies as the project progresses in consultation with Dumfries and Galloway Council.

Approach outside UK

Summary of comments received

6.7.24 There was some belief that undergrounding was the chosen option in countries in Europe, with specific reference to Denmark and Sweden.

6.7.25 Respondents pointed to a recent project for a France-Spain interconnector through the Pyrenees, which was placed underground.

SPEN's response

6.7.26 Each project is unique and needs to be considered on its own merits. For instance, the France-Spain interconnector, which was placed underground through the Pyrenees, is quite different in nature to the one being proposed in Dumfries and Galloway. The France-Spain interconnector is a new point-to-point high voltage direct current (HVDC) 65km connection between two EU member states, while the Dumfries and Galloway Project is an upgrade to an existing interconnected network. The projects therefore have different technical challenges and are being delivered within different regulatory environments.

Suggested routes for underground cables

Summary of comments received

6.7.27 It was suggested that cables could be buried under roads. Respondents also felt that SPEN should investigate the option of teaming up with other utilities or highways officials to provide an underground route which also brought benefits like fibre optic broadband.

SPEN's response

6.7.28 The undergrounding of high voltage cables has a substantial impact on the environment, particularly in rural areas where disturbance to flora, fauna and archaeological sites and the impact of restricted land use must be considered. In both urban and rural environments, land disruption is greater when laying underground cables than when erecting overhead line towers.

6.7.29 For direct buried cables, cables need to be well spaced to allow the heat to dissipate. To match the thermal performance for a 132kV double circuit overhead line, a large cable swathe is normally required, which can be typically up to 4m wide for a double circuit with two cables per phase (12 cables in total), with additional space (width) required for the cable installation work. Jointing bays are also required at intervals of between 500–1000m, to allow for jointing of the individual cable sections. In comparison with this, for overhead lines, land take is limited to the footprint of each tower with an average of 3-4 towers per kilometre. During the lifetime of the overhead line, periodic interventions take place to extend the life of key components such as insulators and tower fittings and the steelwork is protected by painting towers with specialist paint. Statutory inspections take place annually, with any major defects being programmed for repair. There is also an ongoing requirement to ensure that any trees within the wayleave corridor do not affect safety clearances.

6.7.30 Routeing under roads would avoid land sterilisation. However, given the magnitude of the work required for 132kV double circuit cable installation as described above, and notwithstanding the substantially higher costs for undergrounding, it is considered unlikely that a suitable road route could be identified with the necessary width and access for working requirements which could accommodate the disruption during the trenching and cable installation work over a significant period of time. It's worth noting that road traffic disruption during fault investigations and repairs can also be significant for cable installations of this nature.

6.7.31 Although we will seek to coordinate our work with other organisations, the scope of our transmission licence means we cannot provide services such as fibre optic broadband for public use.

6.8 Refurbishing or upgrading existing infrastructure

Summary of comments received

6.8.1 There was a belief among some respondents that current lines were more than adequate for local needs and should just be upgraded, or were capable of repair when necessary.

6.8.2 There was an opinion that where new lines would be the same voltage as existing electricity lines they should be replaced like-for-like, or modernised in situ.

SPEN's response

6.8.3 In the specific case of Dumfries and Galloway's transmission network, a like-for-like replacement of the current network would be less economical and environmentally more challenging as it would require the building of an additional 45km of overhead line between Tongland and Dumfries. The proposed KTR Project will only require the building of new double circuit overhead lines from Kendoon to Glenlee and Glenlee to Tongland.

6.8.4 The existing infrastructure is approaching the end of its life and needs to be modernised. Please refer to the answers in paragraphs 6.3.6 and 6.3.7 in ***The case for replacing ageing infrastructure*** for more information on our assessment of the health and condition of our assets. While both the existing and proposed overhead lines are all 132kV, the majority of the existing overhead lines to be replaced are only single circuit. However, the proposed overhead lines will be double circuit and so require a different tower design i.e. six cross-arms instead of three.

6.8.5 When developing the project we considered the location of existing infrastructure, the contracted generation portfolio as a whole and the future needs of the transmission network. This has resulted in new overhead line corridors being proposed away from existing line routes in some cases, driven by technical and modern environmental routeing best practice.

6.8.6 By modernising the current transmission network we provide a dual benefit of secure supplies for local people and increased capacity for society as a whole for the future.

6.9 Cost

6.9.1 The topics which are identified under this theme include:

- General;
- Lifetime costs;
- Cost-benefit analysis;
- Cost to consumers
- Sources of funding for mitigation measures; and
- Recompense for communities and landowners.

General

Summary of comments received

6.9.2 There was a belief that the decision to pursue an overhead line route was due to cost, at the expense of local communities.

6.9.3 Respondents felt SPEN should have provided cost breakdowns of all strategic options, as well as other solutions, such as underground cables, embedded generation, storage or reducing energy consumption. There was some belief that undergrounding could be an easier and cheaper alternative, or that the cost of installing underground cables would go down if the technology were used increasingly as the norm.

6.9.4 It was likewise felt that SPEN should have provided the costs associated with building a new line in a preferred corridor against upgrading the existing line.

6.9.5 There were questions about how the project would be funded, whether the UK or Scottish Governments contributed to the cost, and, if so, by how much. There was a request for SPEN to explain how it would benefit from the scheme financially.

6.9.6 It was suggested that SPEN had failed in its Schedule 9 duties under the Electricity Act 1989 to make sure the project is economically viable, including an assessment of voluntary wayleaves vs compulsory purchase.

SPEN's response

6.9.7 The range of strategic options we considered in developing the project included cost estimates for each. These strategic options included a baseline like-for-like replacement option reinforcing the existing lines and a separate option to construct new lines along the existing routes. These strategic options have been filtered balancing environmental, technical and economic criteria into a smaller subset which is then subject to a more detailed cost-benefit analysis (CBA). Ofgem will determine whether the project proposals are economic and efficient, and represent value for the GB consumer.

6.9.8 Undergrounding is generally significantly more expensive than building overhead lines, but varies considerably from project to project depending on a range of factors, including whether the line is buried in roads, directly in open agricultural land or whether more complex tunnelling and civil engineering is required. Repair impacts are also higher than for overhead lines, as are the costs associated with any later uprating. Based on current market rates, the construction cost for 132kV underground cabling is estimated, depending on topology and geology, to be greater than three times the cost for a 132kV single circuit wood pole installation and greater than four times the cost for a 132kV double circuit steel tower installation (as proposed on the KTR Project), as opposed to the equivalent cable. The actual multiplier depends on many factors including, but not limited to, the following: circuit rating, circuit length, installation method, environmental issues, circuit cable lengths in comparison with circuit OHL lengths, ground conditions and access requirements.

6.9.9 A proportion of everyone's electricity bill in the UK helps fund transmission infrastructure projects like this. However, it's a relatively small part of the bill, approximately six per cent. This is regulated by Ofgem, who acts on behalf of consumers to ensure projects are delivered economically and efficiently.

6.9.10 The overall cost of the project will be shared by generators and consumers according to charging rules applied by National Grid in its role as GB System Operator, in line with the current industry framework. The cost of this and any other electricity infrastructure project is determined by current legislation and the regulatory framework. Further information on this can be found under the project Needs Case tab on the project website at www.spendgsr.co.uk.

6.9.11 In general terms, under our transmission licence we are responsible for raising the finance for the project through debt (which is borrowed at market interest rates) and equity from shareholders, and thereafter recover the cost over a long-term period. We seek to raise finance efficiently, using a mix of debt and equity. Investors require a return on their investment to compensate them for the risks that they bear. Ofgem sets the allowed return on equity and the allowed cost of debt moves in line with the cost of debt index.

6.9.12 Our Schedule 9 Statement sets out how we will meet the duties placed upon us under Schedule 9 to the Electricity Act 1989. The Statement also refers to the application of best practice methods to assess the environmental impacts of proposals and to identify appropriate mitigation measures. You can find it in Appendix H.

Lifetime costs

Summary of comments received

6.9.13 Respondents felt SPEN should consider the lifetime costs in its appraisal of each option, including maintenance costs.

SPEN's response

6.9.14 We consider whole-life costs, not just capital costs, in our cost-benefit analysis. However, access to and maintenance of underground cables is generally more expensive than for overhead lines.

6.9.15 In particular, our approach compares forecast capital costs and monetised benefits over the project's life to inform this investment recommendation.

6.9.16 We have established high-level full life cycle costs to compare a number of strategic options. The next stage of the project was to take forward a selected number of preferred solutions out of all those considered into a detailed cost-benefit analysis conducted by National Grid, the GB System Operator. The outcome of this analysis has recommended that only the reduced KTR Project should be taken forward at this time and this is reflected in our formal submission to Ofgem.

Cost-benefit analysis

Summary of comments received

6.9.17 Respondents suggested that a thorough cost-benefit analysis should have been carried out including impacts such as landscape character, residential amenity, loss of property values, tourism, jobs, wildlife and cultural and historic assets and emissions abatement, as well as the potential savings through avoiding widespread objections to an overhead scheme.

SPEN's response

6.9.18 As part of the strategic optioneering process, we considered a range of factors when comparing a large number of reinforcement options. These factors included areas of highest environmental impact, visual amenity, environmental impact, capital cost, technology risk, planning and consenting risk and technical benefits. This analysis resulted in a number of options being discounted at the strategic stage and the options which we believe best balance environment and technical factors, and are the most economic and efficient, have been taken into more detailed cost-benefit analysis.

6.9.19 The cost-benefit analysis only compares the net benefit of each solution with the constraint cost saving it achieves.

6.9.20 A socio-economic analysis of the project was conducted as a separate part of our investment case to Ofgem. This will be considered by Ofgem alongside the main cost-benefit analysis of the project. Ofgem will review the strategic optioneering as part of our project submission.

6.9.21 We appointed a consultant to help us appraise, at a high level, some of the wider socio-economic effects associated with the options which have been taken into detailed cost-benefit analysis. This appraisal is summarised in the submission to Ofgem. The key socio-economic indicators assessed include employment, expenditure, amenity and carbon. The outputs of this exercise have also been used to highlight the wider socio-economic considerations for each reinforcement option considered. These include the potential socio-economic effects of the project across a range of areas that may arise during construction and in the long-term, and assessing any impact on tourism and recreation, while considering local amenity issues. This high-level appraisal was a stand-alone supplementary assessment, with the aim of identifying any key differentiators which may impact on the conclusions from the main CBA.

Cost to consumers

Summary of comments received

6.9.22 It was suggested that, on a GB-wide basis, the actual additional cost of a subsea or underground connection would not be significant for annual household electricity bills and that there was evidence that consumers would be willing to pay. Reference was made to *Willingness to Pay* research carried out by National Grid.

6.9.23 Respondents asked whether the additional money on bills would be spread out among Scottish electricity consumers or those across the whole of the UK.

SPEN's response

6.9.24 Electricity transmission infrastructure such as the KTR Project is funded by all GB consumers through their electricity bill. However, it's a relatively small part of the bill, approximately six per cent. This is regulated by Ofgem, who acts on behalf of consumers to ensure projects are delivered economically and efficiently.

6.9.25 The *Willingness to Pay* research carried out by National Grid in 2011[1] was limited to considering the visual amenity by undergrounding overhead lines for existing infrastructure in designated landscapes such as National Parks. It did not include willingness to pay for new infrastructure or different types of visual amenity. The research was not considered by London Economics to be appropriate for transfer to Scotland.

6.9.26 The research led to Ofgem allocating a £500m pot of additional funding to help visually mitigate existing infrastructure in designated areas. In the SP Transmission licence area, this is limited to the existing infrastructure we own in the Loch Lomond National Park and the National Scenic Area (NSA) in the Borders. We are working with stakeholders to develop appropriate schemes that we can put forward to apply for funding from this pot.

6.9.27 For visual mitigation of new infrastructure such as that being proposed in Dumfries and Galloway, we will work with stakeholders to identify where visual mitigation can be effectively used and the costs justified and include these in our overall project submission to Ofgem. This will not be funded from the £500m outlined above but will be additional to that and shared across GB consumers.

Sources of funding for mitigation measures

Summary of comments received

6.9.28 Respondents suggested several sources of funding for additional mitigation measures such as ScottishPower profits, money saved from wind farm subsidies and money saved by reducing the significant value of constraint payments made by National Grid to generation companies whose output is restricted due to lack of transmission capacity.

6.9.29 There was a belief that Ofgem had a fund in place to allow companies like SPEN to put cables underground, specifically in scenic or built-up areas, and this mechanism should be used here. There was a view that Ofgem "generally accepts" such requests from transmission companies.

[1] https://www.ofgem.gov.uk/ofgem-publications/53802/visualamenity.pdf

SPEN's response

6.9.30 We have a statutory duty to develop and maintain an efficient, coordinated and economical system of electricity transmission because a proportion of everyone's electricity bill funds transmission infrastructure projects like this. But we also have a statutory duties which include having "*regard to the desirability of preserving natural beauty*" when planning any new electricity lines or other transmission work. The duties, which are set out in Schedule 9 to the Electricity Act 1989, mean we need to consider the impact our work might have on visual amenity, cultural heritage, ecology, landscape and the local communities in that area. The amount we spend on infrastructure is regulated by Ofgem.

6.9.31 The allowance for balancing services, including constraint payments, is set by Ofgem and held by National Grid in its role as GB System Operator.

6.9.32 Ofgem has set aside a sum of money to develop measures for visual mitigation of existing infrastructure in National Parks, National Scenic Areas and Areas of Outstanding Natural Beauty (AONBs) in Scotland, England and Wales. The fund does not apply to new infrastructure, as environmental regulations are now in place to ensure electricity companies take account of environmental and visual impacts when planning new infrastructure.

6.9.33 The Ofgem allowance is set aside so that transmission network owners can propose schemes which mitigate the visual impact of pre-existing infrastructure in designated areas including National Parks and NSAs. However, appropriate visual mitigation will be considered within the routeing and design scope of the project. Our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* explains how we take environmental and visual factors into account and our project *Routeing and Consultation Document* sets out how it has been done in the case of this project.

Recompense for communities and landowners

Summary of comments received

6.9.34 There was a feeling that although landowners would be a vital part of the development process they would not share the same rewards as those given to participants in wind farm projects.

6.9.35 There was a suggestion that SPEN would save money on wayleaves by choosing corridors in less populated areas.

6.9.36 There was a suggestion that SPEN establish community benefit schemes, similar to those created by wind farm companies.

SPEN's response

6.9.37 We will discuss planning issues with landowners on an individual basis and will compensate them where we need to build any infrastructure on their land. Landowners receive a standard wayleave payment for apparatus located on their land. These rates are the subject of discussion between NFU, Scottish Land & Estates and SPEN.

6.9.38 Our preferred corridors were identified using a detailed and transparent landscape appraisal process as outlined in the project's *Routeing and Consultation Document*, which is available on the project website www.spendgsr.co.uk.

6.9.39 Commercial (non-regulated), privately funded, wind farm developers can commit to providing financial payments in the form of community benefit, or equivalent benefits-in-kind, directly to local communities as mitigation relating to a proposed development. In contrast, SPEN's regulatory obligations prevent the use of such financial arrangements as it cannot be demonstrated that they provide value to the GB electricity consumer. We believe mitigation must be related to reducing the direct and indirect effects that may result from developing the project, and we recognise that such mitigation can have wider benefits to the communities that may potentially be affected by the project. Such schemes might include mitigation corridors designed to bring wider benefits to landscape and visual amenity, and which promote green places and active travel networks e.g. landscape planting/reinforcement and improving biodiversity in a particular area, or the provision of local paths and cycle ways. Our experience of delivering this type of mitigation recognises that, in order to achieve the most effective results, such proposals are best developed in partnership with local communities, landowners and relevant agencies. We are keen to work in partnership to develop and progress such proposals in parallel with the project design.

7. Summary of comments relating to routeing and siting

7.1 Overview

7.1.1 The following themes emerged in the comments received from the feedback (including the alternative pro formas).

- Routeing methodology;
- Environmental impacts;
- Landscape and amenity;
- Socio-economic impacts;
- Health, safety and security;
- Engineering, design and construction; and
- Line removal.

7.1.2 SPEN has considered respondents' comments and responded to them below.

7.2 Routeing methodology

7.2.1 The topics which are identified under this theme include:

- Application of Holford Rules and Horlock Rules;
- General comments on the routeing and siting appraisal;
- Use of trigger zones and buffers;
- Errors and omissions;
- Consideration of individual properties;
- Lack of transparency on route alignments;
- General comments on preferred corridors and siting areas; and
- Consideration of corridors containing existing lines.

Application of Holford Rules and Horlock Rules

Summary of comments received

7.2.2 There were comments that SPEN had taken a considered and detailed approach to identifying and selecting corridors in line with the Holford Rules and the Horlock Rules.

7.2.3 However, there was a counter view that SPEN did not fully comply with the rules, or had not applied them consistently. There was a query about where to find information on a review of the rules which had been conducted by SHETL in 2003.

7.2.4 Some respondents questioned the modern day relevance of the rules, which were first drawn up before large-scale commercial forestry and before wind farms, or how applicable they were to the specific circumstances of the study area.

SPEN's response

7.2.5 The Holford Rules and the Horlock Rules are the recognised guidelines for informing the routeing of overhead lines and siting of substations respectively. They have been used to inform the methodology used by SPEN and our specialist advisers, who have also called on their own experience, relevant planning policy and guidance and consultation with the project's Statutory Stakeholder Liaison Group. The Holford Rules are reviewed on a regular basis to ensure that they are fit for purpose and remain applicable as established practice for routeing new overhead lines. We believe that these rules remain the best starting point for the identification and appraisal of broad corridors and also during the next stage of routeing, namely the identification and appraisal of line route options. You can find the Holford and Horlock Rules, together with the 2003 notes from the SHETL review and a full breakdown of our routeing methodology and how we applied it, in Appendix 1 of our *Routeing and Consultation Document*. You can also see our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment*, which refers to both these guidance documents. Both are available on the project website www.spendgsr.co.uk.

General comments on the routeing and siting appraisal

Summary of comments received

7.2.5 There were comments that SPEN should have provided more evidence to support the choice of preferred corridors. There were concerns that unspoilt countryside seemed to be preferred over areas considered to be semi-industrialised. Some felt the impact of all corridors should be judged by an independent body.

7.2.6 There was a view that emphasis had been placed on landscape designations and wildlife, particularly birds, ahead of people.

7.2.7 Some people were unclear why SPEN's initial study area was limited to the centre of Dumfries and Galloway.

7.2.8 Respondents urged SPEN to consider a report titled *Unfinished Business* which backed the creation of new National Parks in the Stewartry and surrounding areas of Scotland, which respondents felt rendered the area unsuitable for any industrial structures.

7.2.9 Respondents felt SPEN's approach depended too heavily on desktop assessments rather than field work and information gathered through first-hand or local knowledge through consultation. It was felt that SPEN should have engaged with landowners sooner.

SPEN's response

7.2.10 The development of overhead lines and associated substations is likely to have a number of landscape and visual effects which are difficult to avoid. The best way to limit effects on landscape and visual amenity is by the careful routeing of lines and siting and design of substations. On this basis, line routeing is undertaken by landscape architects using professional judgement, informed by both desk and field work (from publicly accessible locations), reflecting the Holford Rules. The identification of corridors involved avoiding areas of highest environmental value, including settlements where possible, informed by the local topography to meet the technical requirements of the project.

7.2.11 We engaged independent environmental consultants to carry out a routeing study to identify and appraise broad corridor options. You can find the details in our *Routeing and Consultation Document*, which is available on our website. The routeing methodology the consultants used was also informed by discussions with the Statutory Stakeholder Liaison Group (SSLG), which consists of statutory consultees to the consenting process in Scotland and England[1] to ensure the protection of the environment and people. This is outlined in Chapter 3. The methodology remains applicable to the KTR Project.

7.2.12 The overarching objective in planning the project requires us to: "*on balance, cause the least disturbance to the environment and the people who live, work and enjoy recreation within it.*"

7.2.13 The original study area was defined on the basis of the geographical location of the required connection points at Polquhanity, Kendoon, Glenlee and Tongland.

7.2.14 National Parks are considered 'areas of highest environmental value' within SPEN's routeing methodology. There are currently no National Parks within the study area for the KTR Project. Should a new National Park be designated by the Scottish Government within the study area we will consider the implications of this for routeing the project.

7.2.15 Field work was undertaken from publicly accessible locations by our landscape and ornithological teams to inform the identification and subsequent appraisal of corridors. Because of the scale of the study area and the corridors which are identified within it, it was not considered appropriate to contact all landowners within the study area at the project outset. Following our confirmation of the proposed corridors to be progressed to the line routeing stage, and informed by the consultation feedback received from landowners to date, we will start contacting landowners in advance of the second round of consultation.

[1] The KTR Project is wholly within Scotland. Reference to the consenting process in England was in relation to the cross boundary DGSR Project.

Use of trigger zones and buffers

Summary of comments received

7.2.16 Respondents questioned the application of a 10km buffer distance from National Scenic Areas (NSAs) which was felt to be inconsistently applied across the study area. There was a view that this had constrained the possibility of considering more southerly corridors and was not good practice.

7.2.17 Similarly, the use of trigger zones around Special Protection Areas (SPAs) and Sites of Special Scientific Interest (SSSIs) were felt to be inappropriate and outside the scope of the Holford Rules. The use of triggers around Loch Ken and River Dee Marshes Special Protection Areas was perceived to have extended the influence of these SPAs beyond their boundaries at this stage.

7.2.18 There was particular concern about the emphasis given to Regional Scenic Areas (RSAs) at the expense of other scenic places. It was felt that RSAs accommodated telecommunications masts and wind farms and, with careful siting, could accommodate an overhead line.

SPEN's response

7.2.19 At the corridor identification stage, and in line with Holford Rule 1, we have sought to avoid the major areas of highest amenity value, which include National Scenic Areas (NSAs). However, where a corridor falls within 10km of an NSA, then consideration is given to the approximate distance between the NSA and the corridor. Beyond 10km, and as identified in studies carried out by others (*Overhead Transmission Tower Study, v2* 30 August 2004 Mark Turnbull (MTLA) and Ian McAulay (Envision) SHE Transmission Ltd) it is unlikely that even the largest steel lattice towers proposed as part of the project would be perceptible. It should also be noted that just because a corridor is within 10km of an NSA, it is not precluded from being identified as the preferred corridor. Please also see ***Landscape assessments*** from paragraph 7.4.20 for further details on the range of criteria which have been considered in the landscape and visual appraisal.

7.2.20 It is important to note that the Holford Rules are guidelines for routeing which can be adapted to reflect the characteristics of the study area and requirements of the project. In relation to the SPAs, in addition to avoiding the SPA area in its own right, the 'trigger for consideration' zones were applied to capture potential effects on qualifying bird species travelling to/from the SPA. These were agreed with Scottish Natural Heritage and the RSPB as part of consultation on the routeing methodology.

7.2.21 As outlined in paragraphs 7.17 to7.21 of the *Routeing and Consultation Document*, Regional Scenic Areas (RSAs) are areas of scenic value at the regional scale which have a level of protection in the Local Development Plan. On the basis that these areas are afforded protection through policy, at the routeing stage they are considered to be more sensitive than non-designated areas.

Errors and omissions

Summary of comments received

7.2.22 A number of perceived errors, omissions or inconsistencies in the *Routeing and Consultation Document* were highlighted. Where of a general nature, these comments are listed in the appropriate sections in this chapter. Matters raised in relation to specific corridors and siting areas are contained within the relevant sections in Chapter 8.

7.2.23 Respondents said key information was lacking, such as the Strategic Environmental Review, technical information in support of the siting area for Glenlee substation, underlying field data in support of *Routeing and Consultation Document* Appendix 4, and copies of all statutory consultee responses to date.

SPEN's response

7.2.24 Further detail regarding the Strategic Environmental Review has been summarised in the project *Background to the Need Case* document.

7.2.25 The baseline information used in the identification and appraisal of corridor and siting options was drawn from material published by relevant bodies, supplemented by verification on site by appropriate specialists. Consultee responses are included in this report. Please see Appendix A.

Consideration of individual properties

Summary of comments received

7.2.26 There was concern that locations of existing wayleaves, individual private homes and areas of population had not been mapped in advance of selecting a preferred corridor. It was felt that leaving such mapping until later in the process could result in a less optimal route for local people.

SPEN's response

7.2.27 The identification of corridors involved avoiding areas of highest environmental value, and settlements where possible, informed by the local topography to meet the technical requirements of the project. In addition to avoiding settlements (which are identified in Local Development Plans) the next stage of the process (line routeing) will involve the mapping of individual properties. On grounds of general amenity we will try to maintain the greatest distance we can, all other things being equal, to individual residential properties.

Lack of transparency on route alignments

Summary of comments received

7.2.28 Respondents across all zones were concerned that there was no information about the proposed routes of lines within the corridors, even estimates, stating that it was difficult to comment on such broad geographical areas. There was a feeling that greater detail of routes, heights and visual impact was essential to properly assess the proposal.

7.2.29 Some respondents felt this uncertainty was affecting their ability to make decisions on property investments in the area. There was a comment that SPEN's plans should have been made available to solicitors carrying out land searches when the project was conceived.

SPEN's response

7.2.30 Line route options have not yet been identified. This will be done in the next step of the routeing process on which we plan to consult people in 2016. Land searches would reveal details of ownership and title conditions. Even once proposed routes have been identified, these would not be revealed in land searches. In addition, a property enquiry certificate would reveal the planning history of a property. However, SPEN has gone to considerable lengths to publicise and consult upon the project as detailed in Chapter 3. This process is ongoing.

General comments on preferred corridors and siting areas

Summary of comments received

7.2.31 Some respondents felt corridors were too narrow in some places, giving fewer options for routeing or minimising visual impact. There was a suggestion that SPEN's routes had already been chosen.

7.2.32 There was a view that corridors should follow existing road or rail routes where available, leaving other areas for the benefit of the tourist industry.

7.2.33 There was a general view that overhead lines should be as far from residential properties as possible, with a suggestion that the minimum distance in Russia and other parts of Europe is 1km.

7.2.34 Specific comments about zones and siting areas are discussed in Chapter 8.

SPEN's response

7.2.35 The width of the corridors was informed by the constraints in the area in accordance with the routeing methodology. This resulted in corridors with widths varying between about 1km and 9km. It is important to note that corridor 'edges' as mapped do not represent fixed boundaries to line routeing. The corridors are broad geographic areas within which routeing an overhead line is considered to be preferable, relative to other geographic areas. The preferred corridors were not tested in detail to ascertain whether or not potential line route options could be found within them. This is because, as part of our iterative process, we need feedback from the first round of consultation to help decide what information is included in the methodology for identification of line route options. Potential line routes will be identified during the next step of the routeing process once we have confirmed the proposed corridors informed by the consultation feedback.

7.2.36 Please also refer to ***General comments on the routeing and siting appraisal*** from paragraph 7.2.11 regarding the selection of corridor options.

Consideration of corridors containing existing lines

Summary of comments received

7.2.37 Respondents felt that any new overhead lines needed should follow the paths of existing routes as closely as possible. The reasons given were that such areas had already been blighted or industrialised by the presence of overhead lines and that these had become accepted in the landscape, or been mitigated by screening which had been established over decades.

7.2.38 It was felt that SPEN should have presented an alternative proposal following, or largely following, the existing line throughout the region. There was a question as to why this was not SPEN's standard approach.

7.2.39 Some respondents were willing to accept slight deviations to existing routes to show sensitivity for protected wildlife sites. There was a suggestion that lines could be undergrounded in such areas. However, there was some disbelief that new corridors would be better for wildlife. There was a view that people should take precedence over wildlife and that any environmental designations within existing corridors had been granted with the lines already in situ.

7.2.40 There was a view that compared to corridors containing existing lines, the new corridors were not significantly shorter, and in some areas, significantly longer.

7.2.41 Respondents felt that building a new line in one area while removing another from a different area was creating double the disturbance. It was suggested that keeping to existing routes would help minimise disruption. There was a suggestion that new lines could be built next to the existing lines before the old ones were removed. Respondents felt this approach would be more acceptable to more people.

7.2.42 Respondents also questioned how building a new line along a completely different route, and removing the old one, would be cheaper or more cost effective than using an existing corridor.

7.2.43 Where people acknowledged that existing lines may no longer be in the best place, respondents felt SPEN had not given enough weight to the fact that they exist. There were comments that SPEN's solution was at odds with National Grid, whose website states: "*National Grid has a policy in place for a number of years which seeks to retain existing assets in situ*".

7.2.44 A number of respondents made reference to the Holford Rules, which require SPEN to consider the effect of following an existing route compared with the effect of a new route avoiding the area.

SPEN's response

7.2.45 Please refer to the answers starting at 7.2.11 under ***General comments on the routeing and siting appraisal*** for information about how we applied our routeing methodology in selecting preferred corridors.

7.2.46 Our approach to routeing has been to adopt a 'blank sheet' approach e.g. not solely reflecting the route of existing 132kV overhead lines. This approach ensures that all potential corridors are identified and appraised, while acknowledging that potential corridors may follow/include existing overhead lines in places. It is important to note that a number of the corridor options we identified for the project included the routes of existing lines. This is the case between Polquhanity to Kendoon and Glenlee and Glenlee to Tongland. All corridor options in a given area were subject to environmental and technical appraisal against each other and the presence of the existing line was taken into account. The findings in each area are presented within the corridor appraisal tables in the *Routeing and Consultation Document*, and informed the selection of a preferred corridor.

7.2.47 It's worth noting that society has changed and our understanding of environmental and visual issues has improved dramatically since the original overhead lines were built 50 to 80 years ago. For instance, a number of areas are now protected, settlements have expanded and the way land is used has changed. For this reason, our preferred corridors do not always follow the route of existing lines. We have robustly applied methodology which conforms to current nationally accepted guidelines.

7.2.48 A number of assessments will be undertaken as part of the Environmental Impact Assessment (EIA) process. The assessments to be carried out will be determined as part of a scoping exercise with statutory consultees and will apply to both new infrastructure and the removal of old overhead lines. They will consider the following topics:

- Landscape and visual impact;
- Ecology and nature conservation;
- Archaeology and cultural heritage;
- Hydrology and flood risk;
- Socio-economics;
- Transport;
- Land use;
- Noise; and
- Electric and magnetic fields (EMFs).

7.2.49 National Grid's document "A Sense of Place" is a guide for property developers looking to build on land traversed by existing electricity transmission overhead lines. It encourages developers to design their development around the overhead lines, as National Grid's policy is to retain the infrastructure not remove it. The document is not a policy for replacing assets along existing routes.

7.3 Environmental impacts

7.3.1 The topics which are identified under this theme include:

- General environment;
- Sustainability and carbon storage;
- Biodiversity; and
- Treatment of historic and cultural sites.

General environment

Summary of comments received

7.3.2 Respondents expressed general concerns across all zones about the impact of the KTR Project on the environment, in particular disruption to species and habitats but also to cultural and built heritage. There was a belief that environmental and landscape concerns were considered less important than cost.

7.3.3 It was felt that talking to local people and consulting local expertise would have prevented some important aspects of archaeology, ornithology and other significant features being omitted from SPEN's research.

7.3.4 There was a request that existing overhead line removal should be carried out carefully to avoid damage.

7.3.5 There was concern that the status of the region as a UNESCO biosphere reserve was not adequately taken into account and that biosphere transition and buffer areas had been incorrectly conflated into one area.

7.3.6 Respondents favoured avoiding places such as cultural heritage sites, areas of outstanding natural beauty, SSSIs, designated wildlife sites and listed buildings and structures on the grounds of visual impact.

7.3.7 There was concern whether electric fields could affect the communication of bees.

SPEN's response

7.3.8 A development of the size and geographical scale of the KTR Project will inevitably result in effects on the environment. However, we are committed to meeting our statutory duties under Schedule 9 of the Electricity Act 1989 in relation to preserving the environment and mitigating any environmental effects. Therefore, consideration of potential effects on the environment will inform all stages of the project, to minimise any adverse effects on the environment, landscape and scenic qualities of all areas, including those valued for tourism and residential amenity. This will be balanced with technical and economic factors to meet the requirement of the KTR Project routeing objective.

7.3.9 In relation to local knowledge we have been particularly keen to hear from local communities within the area covered by our preferred corridors, or close to them, during the consultation. The information provided by the public, consultee organisations and local interest groups will be used to inform the line routeing and subsequent EIA stage of the project. This included information such as areas people use for recreation, local environmental features they would like us to consider, and any plans they may have to build anything in our corridors.

7.3.10 We are only at a very early stage in the development of this project so we won't know what construction methods we will be using until much later in the process. However, we always take every opportunity to minimise the impacts of construction, including line removal, on the environment and local communities. The effects of decommissioning (removing) the existing overhead line and associated infrastructure will be assessed as part of the EIA for the project.

7.3.11 The Biosphere Partnership is one of our consultees and has provided feedback on the project, a summary of which you can read in Appendix B. We met with the Partnership as part of the ongoing consultation process and will continue to engage with them as the project develops.

7.3.12 Cultural heritage sites, Areas of Outstanding Natural Beauty (AONBs), SSSIs, listed buildings and structures and RSAs have been mapped already and have informed the identification and appraisal of corridors. These areas/features will continue to be considered at the detailed routeing stage. Any other local features or areas mentioned in the consultation feedback have been noted and will be taken into account during the line routeing stage where possible.

7.3.13 We are aware of research into possible effects of EMFs on bees. Please see paragraph 7.6.12.

Sustainability and carbon storage

Summary of comments received

7.3.14 It was felt that peat bog, which could be found in various locations throughout the project area, should be left undisturbed as a natural store of carbon.

7.3.15 There was concern that removing trees to make way for construction would affect the important role of forests in carbon sequestration and the availability of timber for renewable heat purposes, for example biomass boilers.

SPEN's response

7.3.16 Where possible we try to avoid areas of deep peat as part of the routeing process, although it is possible to build on peat and we have done so successfully in the past. Areas of peat will be identified during the line routeing stage. The subsequent Environmental Impact Assessment (EIA) will include an assessment of potential effects on peat. Where we cannot avoid locating steel lattice towers or associated infrastructure on peat, we will develop mitigation on a site-by-site basis following detailed site investigation and environmental assessment. Such mitigation might include:

- Minimisation of plant and construction staff, limiting the footprint on sensitive peat;
- The presence of an Ecological Clerk of Works to provide advice and support re micro-siting and peat protection;
- The use of protective matting to prevent disturbance to vegetation and peat structure;
- Careful storage of turves for later reinstatement. This can often include a requirement for re-watering; and
- The use of hydrological management to reinvigorate peat stores (e.g. ditch blocking etc.).

7.3.17 An assessment of the effects of felling forestry will be undertaken as part of the EIA. We will also discuss routeing, tower siting and wayleaves with forestry landowners to avoid, offset or reduce effects on forestry operations where possible. A socio-economic analysis of the project will also be conducted as a separate part of our investment case to Ofgem. Please see section 6.9 under ***Cost-benefit analysis*** for more information. An assessment of carbon will be part of this analysis.

Biodiversity

Summary of comments received

7.3.18 Respondents were concerned about the impact on habitat networks or red squirrel areas, which could be affected by the preferred corridors.

7.3.19 A number of species were mentioned as requiring special consideration or protection throughout the project area.

7.3.20 There were concerns about the effect of high structures and lines within the flight paths of birds, and deaths due to impact with these structures, especially in poor weather or at night. It was felt that bird deflectors were not effective in poor weather or at night.

7.3.21 There was also concern about the possible impact on falconry as a recreational activity.

7.3.22 There was concern about loss of woodland, particularly ancient woodland. There were particular concerns about the effect of felling trees on the fledging of ospreys along the Galloway Kite Trail. There was also a concern that threatened species of upland, moorland and forest birds would avoid areas during construction and only return slowly, if at all.

7.3.23 Some respondents felt consultees such as Scottish Natural Heritage, the RSPB and Dumfries and Galloway Council had been given undue influence. There was a call for more transparency on the decision-making in this regard.

7.3.24 There was a comment that while SPEN had apparently done a lot of work understanding the impact on migratory birds in the southern part of the area, this evidence was missing elsewhere.

SPEN's response

7.3.25 Our landscape and ornithology teams carried out field surveys from publicly accessible locations to inform the identification and subsequent appraisal of corridors. Detailed on-site environmental surveys will be undertaken as part of the EIA process.

7.3.26 Any species or area identified as important during the consultation has been noted and will be taken into account during the line routeing stage where possible.

7.3.27 Care for the environment is extremely important to us and as part of our routeing methodology we identified areas protected nationally and internationally for their environmental value. We also identified other areas where effects could be felt, such as areas birds fly through to reach designated areas. We avoided these wherever possible when identifying the preferred corridors for the overhead lines. During the line routeing stage of the process we will identify and take account of regionally and locally designated sites and features and are keen to hear of any other areas/features to inform the ongoing routeing and subsequent EIA stages.

7.3.28 We will carry out a full EIA when we have developed and consulted again on our preferred routes. This will help to shape the design of the scheme and minimise any ecological effects where possible.

7.3.29 Our Schedule 9 Statement sets out how we will meet the environmental duties placed upon us. The Statement also refers to the application of best practice methods to assess the environmental impacts of proposals and to identify appropriate mitigation measures.

7.3.30 Scottish Natural Heritage and Dumfries and Galloway Council are both members of the Statutory Stakeholder Liaison Group (SSLG). This group is made up of all the project's statutory stakeholders, to advise on and inform the project's development and gain a greater understanding of the local area. It is chaired by the Scottish Government and meets as required. Dumfries and Galloway Council's remit on the group covers people as well as the environment.

Treatment of historic and cultural sites

Summary of comments received

7.3.31 While it was acknowledged that SPEN had taken account of Category A listed buildings and certain Scheduled Monuments (SMs) in the assessment of its corridors, respondents felt consideration should have been given to other cultural assets of significant value, and their settings.

7.3.32 There was a feeling that the area's associations with a number of historical and literary figures, such as Robert Burns and the Covenanters, were important and should be taken into account.

7.3.33 It was reported that several important cultural and historic sites, including gardens and designed landscapes, were missing from the documentation.

SPEN's response

7.3.34 At this early stage of the process, namely identifying and appraising corridors, only areas of highest environmental value have been considered. In relation to cultural heritage this includes the following internationally and nationally designated sites/features: World Heritage Sites, Scheduled Monuments, Inventory Gardens and Designed Landscapes, A-Grade Listed Buildings, Historic Battlefields and their settings, Conservation Areas (usually urban or the core of a village) and archaeologically sensitive areas (for appraisal only).

7.3.35 During the next stage of routeing, (identification and appraisal of line route options), cultural heritage features of regional and local importance e.g. Category B and C Listed Buildings and Non-Inventory Gardens and Designed Landscapes will also be mapped and used to inform the routeing process. Cultural heritage features and their settings, where relevant, will continue to be taken account of during the routeing and EIA process, which will also be informed by consultation feedback from statutory consultees, local interest groups and the public.

7.3.36 One of the purposes of this, the first round of consultation, was to gather further information about local areas, including sites, features and places people value and which should be taken into consideration when we reach the next stage of the process, which will be to consider possible line routes. All such information we've received in feedback has been noted and will be taken into account during the line routeing stage where possible.

7.4 Landscape and amenity

7.4.1 The topics which are identified under this theme include:

- General;
- Landscape assessments.

General

Summary of comments received

7.4.2 Respondents expressed concern regarding the visual effect associated with towers, overhead lines and substations.

7.4.3 There was a suggestion that SPEN produce a map of the area indicating the visual impact of its proposals in the same way wind farms do.

7.4.4 There was a feeling that SPEN had failed to demonstrate it had met its statutory duties under Schedule 9 to the Electricity Act 1989 (with regards to the visual impact of the line), which states it should 'have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiological features of special interest'.

7.4.5 There were concerns about the cumulative effect of new infrastructure near existing overhead lines.

7.4.6 In addition, respondents felt that SPEN had not indicated whether lower voltage distribution lines would also need to be connected to the new network or the further potential cumulative visual impact of this.

7.4.7 It was suggested that all new infrastructure should be screened and SPEN was asked to avoid putting towers on Dumfries and Galloway's exceptionally clear skyline, to minimise the visual impact. However, there was also a view that the size and scale of transmission overhead lines was such that trees could not adequately screen them and that only going underground or subsea would offer mitigation.

SPEN's response

7.4.8 We recognise that the most notable effect of an overhead line is visual, as a result of its scale relative to houses and trees, and we aim to reduce intrusion as much as possible by careful routeing when we reach that stage of the process. At this early stage in the project's design, where we have been identifying broad corridors rather than specific routes, we have taken a number of visual amenity considerations into account. These are reflected in the appraisal of potential overhead line corridor options and you can find out more about this in our *Routeing and Consultation Document*.

7.4.9 Once detailed route alignments are available, we intend to produce detailed Zone of Theoretical Visibility study maps to inform the landscape and visual assessment which forms part of the EIA process and which will be reported in the Environmental Statement.

7.4.10 Adherence to our Schedule 9 duties is reflected in our approach to routeing which takes into account landscape, visual, environmental, economic and technical factors to route and design a project which causes, on balance, the least disturbance to people and the environment. You can find out more about this by referring to our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment*.

7.4.11 With reference to cumulative visual and other effects, the existing transmission network which will be retained is recognised and mapped in the corridor appraisal. Cumulative landscape and visual effects will be considered in finer detail during the line routeing phase of the project. Line routes will be identified in order to avoid or minimise potential cumulative effects, in accordance with Rule 10 of the Horlock Rules. Rationalisation of the existing transmission and/or distribution network infrastructure will be considered as a potential mitigation option. Cumulative effects, including those resulting from any secondary connections, will also be assessed in the EIA and reported in the Environmental Statement.

7.4.12 Our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* sets out how we try to mitigate visual impact in the first instance through careful routeing of new overhead lines, including avoiding skylines where possible. Opportunities for screening and other mitigation can be explored at the detailed routeing stage, as we plan the most appropriate route within the preferred corridors.

7.4.13 Undergrounding can remove visual effects but will have potentially greater impacts on other receptors such as local archaeology and hydrology. All of these factors require careful consideration.

Landscape assessments

Summary of comments received

7.4.14 There was a feeling that only areas designated as having 'highest value' had received protection in SPEN's process, and that sensitive undesignated landscapes were undervalued as a result.

7.4.15 Respondents believed the project would conflict with the *Dumfries and Galloway Local Development Plans* with regard to RSAs. There was a further query whether RSAs had featured in the maps in the *Routeing and Consultation Document*.

7.4.16 Respondents asked how landscape capacity data had influenced the choice of preferred corridors, in particular whether the information in the *Dumfries and Galloway Wind Farm Landscape Capacity Study (2011)* had been used.

7.4.17 Respondents questioned SPEN's assessment that corridors through unspoilt areas were preferable in landscape terms to an upgrade of the existing route. It was stated that the relative landscape capacity of the various corridors had been given insufficient weighting in the appraisal of corridor options.

7.4.18 There were concerns that several landscape character types, such as upland fringes and drumlin pastures, were classed as medium capacity when they should have been classed as lower capacity, and hence more sensitive to development.

7.4.19 It was further felt that without detailed examination of the length of each landscape type in each corridor, a comparison was difficult to make.

SPEN's response

7.4.20 The landscape and visual appraisal of the corridor options considered national landscape designations (such as NSAs, local landscape designations (such as RSAs), landscape capacity and visual amenity.

7.4.21 RSAs are shown on Figures 7.2a-d of the *Routeing and Consultation Document*.

7.4.22 At the corridor identification stage national landscape designations have largely been avoided where possible. However, when a corridor passes close to an NSA and as such is more likely to introduce visibility of an overhead line into the designated landscape, then this has been considered in the corridor appraisal.

7.4.23 With regard to local landscape designations, such as RSAs, for certain sections of the project it has not been possible to avoid these areas. However, in other sections of the project certain corridors pass through local landscape designations while others avoid them, and this has also been considered in the corridor appraisal.

7.4.24 With regard to landscape capacity, the landscape character types (LCT) identified in the regional suite of landscape character assessments published by Scottish Natural Heritage in the 1990s have been used as the starting point for the landscape baseline. This includes the *Dumfries and Galloway Landscape Assessment SNH Report No. 94*, prepared by LUC consultancy in 1998. This information has been supplemented with more recent landscape capacity study findings, mainly in relation to wind farms, including the *Dumfries and Galloway Wind Farm Landscape Capacity Study (Main Report Carol Anderson/Alison Grant 2011).* Together with field surveys, these documents have been used to inform the appraisal of the capacity of each LCT to accommodate the infrastructure proposed as part of the project.

7.4.25 When appraising corridors in terms of landscape capacity, consideration has been given to identifying corridors which maximise routeing opportunities through LCT which have a higher capacity to accept the type of development proposed. It should also be noted that the presence of the existing transmission network was taken into account. Where it was considered that existing overhead lines are well-routed and the landscape of the corridor had the capacity to accommodate the larger overhead line infrastructure required as part of the KTR Project, this has also been factored into the appraisal.

7.4.26 The visual amenity of each of the corridor options has also been a consideration in the corridor appraisal. The effect on visual amenity has taken account of important Ordnance Survey mapped viewpoints, key tourist routes and the general population spread. Where possible, the corridor appraisal has sought to minimise potential visual effects on important viewpoints and key tourist routes and route through less densely populated landscapes.

7.4.27 In summary, the landscape and visual corridor appraisal has considered a number of sometimes conflicting criteria. For example, it is often the most 'unspoilt' landscapes which are the least densely populated. For each corridor section, professional judgment has been used in an attempt to find, on balance, the corridor which causes the least disturbance to the landscape and visual amenity of the study area.

7.5 Socio-economic impacts

7.5.1 The topics which are identified under this theme include:

- Tourism;
- Other economic impacts;
- Effect on property values;
- Compensation; and
- Psychological impacts.

Tourism

Summary of comments received

7.5.2 There were widespread concerns that an overhead connection would have a detrimental effect on tourism, which was cited as one of the main sources of income in the area. Respondents felt SPEN had provided inadequate information in its documentation about the value of tourism or the impact of the scheme on visitor numbers.

7.5.3 Respondents highlighted the investment that had been made in branding Dumfries and Galloway as "The Natural Place" and felt that the sight of industrial overhead lines was at odds with this.

7.5.4 There was reference to a recently-completed SPEN project to remove taller electric poles and replace them with more, but shorter, ones. There was a belief this work was carried out in response to a SPEN survey which concluded that visitors felt taller poles provided a detrimental visual impact.

7.5.5 A number of people mentioned specific local events, which they felt were important to the tourist potential of the area, and which could be adversely affected if people were put off visiting the area due to the impact of overhead lines on the environment.

7.5.6 There was specific concern about the viability of tourism accommodation businesses in the vicinity of the project. In several areas, specific confidential economic development was identified which respondents felt could be affected by close proximity of overhead lines.

SPEN's response

7.5.7 We appointed a consultant to help us appraise, at a high level, some of the wider socio-economic effects as part of a cost-benefit analysis, which has been summarised in our Ofgem submission, as outlined in section 6.9 under ***Cost-benefit analysis***. The key socio-economic indicators assessed include employment, expenditure, amenity and carbon. The analysis will include assessing any impact on tourism and recreation, while considering local amenity issues. Areas, events and developments identified by respondents as important as part of the feedback process have been noted and will be taken into account where possible during the line routeing stage.

7.5.8 We will continue to take account of tourism when the project progresses into the line routeing stage. We will identify tourist attractions and features which could be affected by a visual impact, informed by feedback received from the statutory consultees, local interest groups and public through the consultation process. Subsequently we will be assessing the potential impacts on tourism as part of the Environmental Impact Assessment (EIA).

7.5.9 With reference to our project to upgrade and maintain electricity poles, we believe this refers to an ongoing eight-year £150m programme to reinforce our distribution network. This programme is designed to improve storm resilience and reduce the likelihood of power cuts in our 33kV, 11kV and lower voltage networks. It is not being carried out with the aim of improving visual amenity. The programme involves replacing existing wooden poles with modern equivalents which are shorter for purely technical reasons. The design specification for the new wood poles is known as ESI 43-40, which stipulates heavier conductor wires with shorter spans between poles. Shorter span lengths mean that we can use shorter poles to meet statutory ground clearance.

7.5.10 Areas, events and developments identified by respondents as important for tourism, recreation, other economic activity, or their own personal land use have been noted and will be considered where possible during the line routeing stage.

Other economic impacts

Summary of comments received

7.5.11 It was suggested that the project would have an adverse economic effect on agriculture and forestry, through loss of land, or felling, as well as on the shooting and fishing industry. The role of farming and forestry was seen as a particularly important consideration for the area. There was also particular concern over loss of prime agricultural land to the project, with particular reference to loss of availability of prime pasture land during construction.

7.5.12 There was a view that any short-term gain to the local economy from the use of local subcontractors would not translate into long-term economic activity, such as jobs. There were concerns that a "highly specialised workforce" would be brought in rather than creating jobs for local people.

7.5.13 There was some interest among local companies in becoming suppliers to the construction project.

SPEN's response

7.5.14 We will talk to landowners and their agents during the routeing process to try to site towers and agree wayleaves so as to avoid, offset or reduce effects on agricultural land and forestry. An assessment of potential impacts on agriculture and forestry will be undertaken as part of the EIA, and the findings reported in the Environmental Statement.

7.5.15 We have carried out a socio-economic analysis of the project which will help us appraise, at a high level, some of the wider socio-economic effects associated with the options which have been taken into detailed cost-benefit analysis. In addition, we will carry out a more detailed socio-economic assessment for the project as part of the Environmental Impact Assessment. Please refer to ***Cost-benefit analysis*** in section 6.9 for more information.

7.5.16 The types of skills required in building transmission lines are very specialised, but we are keen to work with local agencies to try to ensure the local area benefits from our construction work where possible.

Effect on property values

Summary of comments received

7.5.17 There was a general sense that loss in property value throughout the project area would result in economic decline and that people would move away from the area. A paper by Sally Sims and Peter Dent of Oxford Brookes University was referenced which explores the subject of the impact of towers and overhead lines on property prices, albeit in an urban environment.

7.5.18 Respondents felt that siting infrastructure close to properties would have a detrimental effect on property values, due to its visual impact and perceived health effects. A number of respondents expressed the opinion that this would lead to a loss of quality of life for homeowners in the region.

7.5.19 A number of respondents who had retired to the area said they would not have done so had the project been under way. There were concerns that in the medium to long term there could be a stagnation or reduction in population.

SPEN's response

7.5.20 Our proposals are still at a very early stage, and in identifying preferred corridors we have tried to avoid areas of high environmental value and settlements (as identified in Local Development Plans) as much as possible. We understand people's concern about property values. At the next stage (line routeing) we will be mapping individual properties. On grounds of general amenity we will try to maintain the greatest distance we can, all other things being equal, from our infrastructure to individual properties, to minimise any potential impact.

Compensation

Summary of comments received

7.5.21 Respondents felt residents should be compensated for loss of property value and/or loss of visual amenity as a result of the project. Several respondents felt it unfair that landowners would be compensated while householders would not. There were references to other major projects where compensation had been paid, for instance the Borders Railway.

7.5.22 Several respondents felt lack of an estimate by SPEN on the likely compensation arising from claims for injurious affection was an omission meaning the economic viability of the project was not established.

7.5.23 There was a query whether compensation would be available during the disruption caused by work installing and or removing lines.

SPEN's response

7.5.24 Landowners who have apparatus placed on their land would be entitled to compensation. However, there is no compensation for the potential impact of the overhead lines forming part of the project on views from individual properties. However, we recognise that the visual impact of an overhead line may be an issue for many local communities and individuals and our approach is to maximise the distance of the final route from properties wherever possible. Individual properties will be mapped out and considered as part of the detailed routeing stage. For example, in some cases the visual impact can be reduced significantly by routeing a line behind a property rather than in front of it, and we would seek to do this where possible.

Psychological impacts

Summary of comments received

7.5.25 Respondents reported current or likely negative psychological impact due to the proposals or the uncertainty of the process, with expressions of fear, unhappiness, depression, stress-related illness and lost sleep.

SPEN's response

7.5.26 The routeing and siting process follows a number of steps. We take account of people's views at each stage of development, and this means by definition that detailed plans are not available at the outset of the project. Although this brings a level of uncertainty, it also allows local people to have their say at each stage and help us develop the best possible solutions. In seeking to achieve least disturbance, we are keen to engage with everyone who has an interest in the project and are fully committed to keeping this engagement going through all phases of the process to ensure that communities and individuals are kept informed of developments.

7.6 Health, safety and security

7.6.1 The topics which are identified under this theme include:

- Health and electric and magnetic fields (EMFs);
- Health and safety during construction and operation;
- Electric and magnetic compatibility;
- Aviation and low fly zones;
- Noise;
- Weather; and
- Other potential impacts.

Health and electric and magnetic fields (EMFs)

Summary of comments received

7.6.2 Respondents asked about the perceived health risks relating to electric and magnetic fields (EMFs), which they had heard could be linked to a number of conditions, including childhood leukaemia, cancer and Alzheimer's Disease. There were concerns about living near high voltage infrastructure and long-term exposure to EMFs, and that infrastructure should be kept away from local communities where possible.

7.6.3 There were specific queries about whether:

- There was any risk posed to children attending a school near overhead lines, with specific concern about the impact on the viability of child-minding businesses within the preferred corridors;
- It was safe to carry out recreational activities underneath overhead lines;
- EMFs attracted airborne pollutants which could adversely affect the health of people living nearby;
- Having both existing and new lines close to each other would amplify the risk from EMFs; or
- People with epilepsy or with sensitivities to electrical impulses, vibrations and strong magnets should be concerned.

7.6.4 There were requests for SPEN to guarantee there were no health effects for people living near overhead lines or substations.

7.6.5 There was a question about whether EMFs would affect livestock or wildlife, or have implications for the food chain.

7.6.6 Disappointment was expressed that SPEN had not given more reference to EMFs in its project documentation. Respondents requested clear, impartial evidence and information on the studies/research that has been carried out into the issue.

7.6.7 Respondents queried whether placing the connection underground would reduce the potential for negative health effects.

7.6.8 There were concerns that changes to the transmission network elsewhere in Dumfries and Galloway could increase EMFs in existing lines.

SPEN's response

7.6.9 There has been a lot of research into whether electric and magnetic fields have any effect on health, and over £300m has been invested in investigating this issue around the world. Research still continues but the balance of scientific evidence to date suggests that EMFs do not cause disease.

7.6.10 Sense About Science, a charitable trust that equips people to make sense of scientific and medical claims in public discussion, has said the following:

"A study published in 1979 reported an increased incidence of leukaemia among children living next to towers and other more recent studies have found a similar association. The most recent, the Draper study published in 2005, found a relationship between the chances of developing leukaemia and the distance a person lived from overhead lines in the UK, which would account for no more than five cases in England and Wales (of the c.400 that occur annually). This does not show, however, that the overhead lines are causing cancer. The Draper study showed that the risk remained high even at distances where the magnetic field from the overhead line was weaker than EMF from electrical wiring in the home, and even at distances where no EMF from the tower can be measured at all.The increased risk may be because the children shared some other risk factor for leukaemia perhaps due to exposure to some other environmental conditions or carcinogens. Overhead lines and EMFs have not been established as a cause of childhood leukaemia. Laboratory trials using animal models and other tests have found no biological mechanism to explain how EMF exposure from power lines could cause cancer."

7.6.11 We have dedicated EMF resources to assist the public and to provide further information, including, if appropriate, home visits and measurement of electric and magnetic fields. Copies of the leaflet "EMFs – the facts" were available at our public consultation events, where we also provided experts able to answer technical questions. We also directed people to the website www.emfs.info for further information.

7.6.12 With regard to the effect on plants and animals, most research in this area was undertaken in the 70s and 80s. Since then little research has been performed, reflecting the general agreement that EMFs have not been shown to have any detectable effects (with the specific exceptions of honey bees in hives and trees growing close enough to lines to be subject to corona). There is little evidence that exposure of crops, farm animals or natural ecosystems to transmission line EMFs has any agriculturally significant consequences.

7.6.13 Underground cables still produce magnetic fields (electric fields are screened by being underground) and can be higher when standing directly above a high-voltage underground cable. This is because the distance from the ground to the underground cable is smaller than the distance to an equivalent overhead line. Such cables are not typically located beneath buildings. Although there may be circumstances where the costs of undergrounding are justified for a particular development, this is unlikely to be on the basis of EMF exposure alone, for which there are likely to be more cost-efficient mitigation measures. Both overhead and underground cables are designed to operate within the relevant EMF exposure guidelines. Given that the fields produced are below the established level of risk there is no definitive basis for judging which technology is lower risk. Undergrounding of a line would reduce the level of EMFs experienced, but high magnetic field levels may still occur immediately above the cable. It is not the Government's policy that overhead lines should be undergrounded solely for the purpose of reducing exposure to EMFs. For more information please visit www.emfs.info

7.6.14 Both SPT's existing and proposed infrastructure will comply with Government guidelines.

Health and safety during construction and operation

Summary of comments received

7.6.15 Reference was made to the need for close consideration of health and safety of residents during the construction phase of the project.

7.6.16 There was a request for information on the safety of forestry harvesting equipment in the vicinity of overhead lines.

7.6.17 There were specific concerns relating to the proximity of substations and the danger of explosion and fire.

SPEN's response

7.6.18 The safety of staff, contractors and members of the public is the first priority for SPEN during the planning and construction of any project. Once construction contracts have been placed, a detailed Health and Safety Plan will be created to control and direct all aspects of the project from site establishment and traffic management (for which there will be a separate Traffic Management Plan) through to commissioning of the project.

7.6.19 With regards to forestry these issues will be considered at the next phase of the project when we have more information about detailed routes and sites. There are guidelines we have to follow set down by the Health and Safety Executive (HSE). For more information please refer to HSE Guidance Note GS6 *Avoiding danger from overhead power lines* (http://www.spenergynetworks.co.uk/userfiles/file/gs6.pdf). Further information can also be found in the *Forest Industry Safety Accord – Electricity at Work: Forestry* (http://www.ukfisa.com/safety-information/safety-library/fisa-safety-guides/fisa-804-electricity-at-work.html).

7.6.20 When designing substations, SPEN gives the highest priority to the safety of staff, contractors and members of the public. This means designing out or mitigating any potential risks of explosion and fire. The proximity of substations to local housing, amenities and infrastructure are considered as part of this design process. We also install protection and control systems in substations which monitor the condition of the high voltage system and ensure that faults are identified at the earliest possible stage. We also carry out regular inspection and maintenance to make sure equipment is maintained in optimum condition, further minimising any risk.

Electric and magnetic compatibility

Summary of comments received

7.6.21 Respondents expressed concerns surrounding the potential for equipment such as pacemakers or implantable cardioverter defibrillators (ICDs) to be affected by high voltage equipment.

7.6.22 There was concern from an amateur radio enthusiast that there could be an effect on low frequency waves.

7.6.23 Respondents expressed concerns surrounding the potential for phone equipment, internet reception or signal interference caused by high voltage equipment.

SPEN's response

7.6.24 Pacemakers and other active implanted medical devices, fitted in a standard manner, are designed in such a way that they are not affected by EMFs at the levels produced by overhead lines. Household electrical equipment should not be affected.

7.6.25 Our overhead lines are designed to comply with the EU Directive on electromagnetic compatibility. In normal operation electricity transmission equipment should not interfere with FM radio, DAB, mobile phone, satellite/analogue/digital television channels reception or Wi-Fi.

7.6.26 In older type TVs (cathode ray tube visual display unit (VDU) screens) there is potential for magnetic fields to interfere and distort the picture when in close proximity to an overhead line. New liquid crystal display (LCD) and plasma TVs are immune to interference.

7.6.27 Where it is reported that our equipment is thought to be causing interference with other electrical equipment, we will investigate and advise. In the unlikely event that our equipment is demonstrated to be the cause of interference, remedial actions will be investigated.

Aviation and low fly zones

Summary of comments received

7.6.28 Respondents expressed concern in relation to preferred corridors and the operations of the RAF and other military and civilian planes. There were a number of references to a Ministry of Defence (MOD) low fly zone across much of the project area, as well as military exercises, and a request that SPEN confirm that National Air Traffic Services (NATS) and the MoD have been consulted.

7.6.29 It was noted that lines near small airfields in Parton were due for removal and this was felt to be an improvement for flying activities in that area.

SPEN's response

7.6.30 We have consulted the Ministry of Defence Safeguarding and National Air Traffic Services (NATS) and will continue to do so as the project progresses. Details of the MOD's response to the consultation can be found in Appendix B; no response was received from NATS.

Noise

Summary of comments received

7.6.31 Respondents expressed concerns about operational noise during wet or windy weather and the potential for this effect to significantly increase when in close proximity to an overhead connection.

7.6.32 To avoid further operational noise, respondents suggested putting cables underground.

7.6.33 People also mentioned increased noise from operational activities such as increased vehicle journeys.

7.6.34 SPEN was asked to provide the level of noise likely to be emitted from each type of tower.

7.6.35 Respondents also asked whether potential risks associated with sounds which, although not audible, are detectable by the brain had been taken into account in respect of establishing a minimum distance to properties.

SPEN's response

7.6.36 All high-voltage transmission lines have the potential to generate noise under certain conditions. The phenomenon is known as corona discharge and is caused by the discharge of energy that occurs when the electrical field strength on the conductor surface is greater than the 'breakdown strength' (the field intensity necessary to start a flow of electric current) of the air surrounding the conductor.

7.6.37 The degree or intensity of the corona discharge and the resulting audible noise are affected by humidity, air density, wind and water in the form of rain, drizzle and fog. Water increases the conductivity of the air and so increases the intensity of the discharge. Also, irregularities on the conductor surface, such as nicks or sharp points and airborne contaminants, can increase the corona activity. Ageing or weathering of the conductor surface generally reduces the significance of these factors.

7.6.38 Distances between the overhead line sites and individual properties and other sensitive receptors, such as schools, will be maximised where possible through the routeing process. Potential noise impacts will be considered as part of the EIA process. Baseline noise data will be collected along the overhead line route to establish current noise levels, and we will assess how these might be affected by our equipment. The exact locations for monitoring will be agreed with the Council Environmental Health Officer, and potential noise from construction and operation will be assessed as part of the EIA.

Weather

Summary of comments received

7.6.39 There was concern regarding the safety of overhead lines in relation to adverse weather conditions.

SPEN's response

7.6.40 High-voltage overhead lines are designed to withstand extreme weather conditions and have an excellent reliability record. Extreme weather conditions in the UK that might affect our overhead lines include wind and ice. We will take account of factors including wind and ice loading at the detailed design stage.

Other potential impacts

Summary of comments received

7.6.41 There were concerns about the potential hazards of fishing near to overhead lines, due to the reach of rods and fishing lines.

SPEN's response

7.6.42 During the next phase of line routeing we will also map locations used for fishing, where known, and avoid them where possible.

7.7 Engineering, design and construction

7.7.1 The topics which are identified under this theme include:

- Tower design and technology;
- Resilience, power cuts and effect on distribution network;
- Disruption during construction; and
- Hydrology.

Tower design and technology

Summary of comments received

7.7.2 There was a feeling that overhead lines and towers were old technology and inefficient. A number of respondents felt SPEN should be investing in innovation to develop new forms of more acceptable and efficient transmission or storage technology.

7.7.3 There were a number of requests for SPEN to consider use of the new T-pylon design, or any other more sympathetic tower designs which were smaller, or lower, or possibly paint the towers to blend with their surroundings.

7.7.4 A number of people raised concern about the potential risk of weather damage due to the towers' extreme height.

SPEN's response

7.7.5 The types of steel lattice tower and conductors (wires) we use for transmission infrastructure projects are described in Chapter 4 of our document *Major Electrical Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* which is available on our website www.spendgsr.co.uk. The towers are made from high tensile steel which is assembled using galvanised high tensile steel bolts with nuts and locking devices. We will continue to monitor, and contribute to, developments in the industry and make decisions on where new and appropriate designs might be utilised as part of the development of any major electrical infrastructure proposals. The tower designs we use will be GBSQSS (Great Britain Security and Quality of Supply Standard) compliant and are likely to be those already used across the existing transmission network.

7.7.6 We invest around £7m a year on innovation projects and have two teams dedicated to innovation. Investment is spread across a number of areas including network automation, demand-side response, energy storage, smart metering and active network management.

7.7.7 The new T-pylon came from a competition organised by National Grid, in which our staff were part of the judging panel. We have an open mind but at the moment we are proposing to use the standard steel lattice tower. There are advantages and disadvantages to both depending on individual locations, and we're not at that stage yet. The steel lattice tower is harder to see from a distance, while the T-pylon has a lower profile but is more visible, similar to a wind turbine. The T-pylon also requires a permanent access platform (typically a large concrete base), while we can use mobile removable access for maintenance on traditional towers. These are all things to bear in mind.

7.7.8 Overhead lines and towers are designed to withstand extreme weather conditions and have an excellent reliability record. Line design will take account of various factors such as wind and ice loading.

Resilience, power cuts and effect on distribution network

Summary of comments received

7.7.9 Respondents questioned whether the increased resilience of the new network would be felt locally, although some expressed a hope the new line would reduce the number of power cuts they personally experienced. There was also a concern that bird collisions with taller towers could increase power cuts.

7.7.10 There were comments that SPEN had not provided information about any new lower voltage distribution lines which would be required as part of the project.

SPEN's response

7.7.11 High voltage transmission lines are unlikely to be the cause of local power cuts. Many parts of the Dumfries and Galloway transmission network have been assessed as being a priority for replacement due to their age and condition. Please refer to section 6.3 ***The case for replacing ageing infrastructure*** for more information about condition assessments carried out by SPEN.

7.7.12 Details about changes to local distribution networks will not be available until later in the process when we have decided on potential line routes and siting areas. Distribution lines and cables tend to be much smaller and lower voltage, often on wooden poles. Cumulative visual effects of new and existing infrastructure will be considered in finer detail during the line routeing phase of the project, and will also be assessed as part of the EIA process and reported in the Environmental Statement.

Disruption during construction

Summary of comments received

7.7.13 There was a general concern about the disturbance, disruption and general inconvenience during the eventual construction of the project, in particular vehicle movements and damage to roads.

7.7.14 A number of respondents commented that, in many of the areas in the preferred corridors, the road network was narrow or single track, in poor repair in places, and was considered unsuitable for construction traffic. There was a feeling that if the project goes ahead SPEN should accept responsibility for restoring roads to a good standard.

7.7.15 Respondents asked whether there would be power outages during the construction of the project.

7.7.16 There were concerns that bridges and traditional roadside houses without foundations would be affected by increased traffic movements. There was a reference to the impact already being experienced as a result of existing forestry traffic.

7.7.17 There was a query whether access to areas of recreation, such as for dog walking, would be affected during or after construction.

7.7.18 It was felt that SPEN should carry out calculations on emissions of greenhouse gases during construction, to include the landscape fabric, soil structure and include manufacture, transportation, civil works and installation of towers, overhead lines and substations as well as the decommissioning of the existing line.

SPEN's response

7.7.19 Some disruption is inevitable in a project of this size, but it's too early to be precise until we have developed our final proposals. We aim to minimise any potential impact to residents, businesses and communities. The Environmental Statement, which we will submit as part of the application for Section 37 consent will include an outline Traffic Management Plan (TMP) developed with Transport Scotland, the local roads authority and the police.

7.7.20 If the project obtains consent, we would submit a detailed TMP to the local roads authority and this would include assessing the condition of any local roads to be used by construction traffic and the standard of reinstatement post-construction.

7.7.21 It is unlikely there will be power outages during construction. However, if this was necessary, any outages would be planned well in advance and sufficient notice given to businesses and home owners.

7.7.22 The traffic and access assessment will identify appropriate accesses and any areas which may require improvement prior to/following construction.

7.7.23 Regarding areas of recreation, it is too early to say as we do not yet have detailed routes for the line. However, the intention would be to avoid closing rights of way or core paths used by members of the public where possible and, where this is unavoidable, to provide suitable temporary diversions to ensure people's safety during construction.

7.7.24 As part of our regulatory investment programme, we have to put a submission before Ofgem to demonstrate that the investment need is robust and the timing is correct, and that the scope provides value for money for existing and future customers. The submission will include an assessment of local economic and wider societal benefits and this will give consideration to carbon emissions.

7.7.25 Construction impacts on bird life (ornithology) will be assessed as part of the EIA and reported in the Environmental Statement with suitable mitigation developed to avoid, offset or reduce it.

Hydrology

Summary of comments received

7.7.26 Respondents raised general concerns about the possible effect of construction on water quality in rivers and on sources of drinking water, including a number of private water supplies.

7.7.27 Some people raised concerns about the impact on geology and soils, in particular the potential loss of valuable peat bogs which store carbon.

SPEN's response

7.7.28 Private water supplies and watercourses will be identified as part of the baseline for the EIA process and will inform the final siting of towers and design of associated infrastructure. We will undertake a full hydrological assessment of the construction and operation of the project as part of the EIA.

7.7.29 Please refer to ***Sustainability and carbon storage*** from paragraph 7.3.16 regarding the treatment of areas of peat.

7.8 Line removal

Summary of comments received

7.8.1 Respondents were generally supportive of the removal of overhead lines and felt as many as possible should be taken down.

7.8.2 However, many felt the removal was being presented by SPEN as a "sweetener" for the installation of bigger more obtrusive lines in previously unspoilt areas and that this would encourage "nimbyism".

7.8.3 There was a feeling that the existing lines were preferable to the new ones being proposed by SPEN. A number of respondents stated their belief that they were already accepted in the landscape, which was degraded as a result. Respondents also felt the fact that old lines were in areas designated for wildlife was irrelevant, as these areas had received designation despite the presence of the lines, which pre-dated them.

7.8.4 There was a view that removing lines in some areas and building new ones in others increased the amount of disruption.

7.8.5 There was a comment that, in some areas in the preferred corridors, existing lines would remain and there would be a new larger line as well, leading to cumulative impact on the landscape and people's visual amenity.

7.8.6 There was a desire to see any line removal being carried out carefully to minimise damage and disruption. Respondents urged SPEN to ensure all concrete and substructures would be removed to their full depth before the land is reinstated.

7.8.7 There was some regret expressed over plans to remove the Glenlee to Tongland line, due to it being used as a perch for numerous birds.

SPEN's response

7.8.8 For information about why corridors don't always follow existing line routes and how careful routeing will be used to minimise the effects please refer to ***Consideration of corridors containing existing lines*** in section 7.2.

7.8.9 Regarding sites which have been designated since lines were erected, following the guidance contained within the Holford Rules as set out in the *Routeing and Consultation Document*, we seek to avoid designated sites, and to remove existing overhead lines located within designated sites, wherever we can. The potential effect on the environment of existing lines was considered during the corridor appraisal stage and, where appropriate, will also be considered during the line routeing and subsequent EIA stage.

7.8.10 The routeing, construction and removal of overhead lines will be considered as part of the EIA process and appropriate mitigation developed to avoid, offset or reduce effects in areas where lines are being installed or removed.

7.8.11 Cumulative effects of the development will be fully assessed as part of the EIA and the findings reported in the Environmental Statement.

8. Summary of comments relating to preferred corridors

Note: This section addresses feedback received in relation to the areas still being progressed as part of the Kendoon to Tongland 132kV Reinforcement (KTR) Project. On this basis only feedback and the associated SPEN responses in relation to Consultation Zones 3 (Glenlee to Tongland) and 4 (Kendoon to Glenlee) is included below.

8.1 Overview

8.1.1 Comments were received in the feedback (including the alternative pro formas) relating to each of the consultation zones as below:

- Zone 3; and
- Zone 4.

8.1.2 In each section, comments have been further grouped under the following headings, as appropriate:

- Comments on SPEN's preferred corridor or siting area in that section;
- Comments on SPEN's alternative corridors or siting areas in that section;
- Suggested modifications to any of the SPEN corridors in that section;
- Suggested new corridors in that section;
- Suggested routes in that section;
- Comments on environment, landscape and amenity in that section;
- Comments on socio-economic issues in that section; and
- Comments on engineering, design or construction in that section.

8.2 Zone 3

SPEN's preferred corridor G/T 2

Summary of comments received

8.2.1 There was some support for the need for the project and the proposals in this area, and acknowledgment of the case for removing the existing 132kV line on the basis of providing added protection for birds in areas around Loch Ken.

8.2.2 Some respondents said they disagreed with, felt there wasn't enough justification for or didn't understand the justification for the SPEN preferred corridor G/T 2 in this area.

8.2.3 There was concern that the preferred corridor G/T 2 is very narrow in places, which could adversely affect the village community of Mossdale and homes within Laurieston Forest.

8.2.4 There was also concern that the preferred corridor G/T 2 could bring potential routes too close to the settlement of New Galloway.

SPEN's response

8.2.5 To identify potential corridors, we employed environmental consultants to carry out a detailed study which took account of amenity and environmental considerations, including the effects on local communities. The study included ecology, cultural heritage, landscape, flooding, technical, tourism and recreation, agriculture and settlements.

In relation to the preference for corridor G/T 2 relative to corridor G/T 4, G/T 2 avoids designated sites, whereas G/T 4 crosses Loch Ken which is designated as an SSSI, SPA and Ramsar site. The Flooded Valley LCT around the Loch Ken area of G/T 4 is also considered to be sensitive in landscape terms and has a higher density of residential properties, particularly around the loch edge. However, corridor G/T 2 maximises opportunities for routeing through higher capacity LCT to the west of the Loch Ken Valley which are sparsely populated and have already been altered by coniferous plantation woodland.

Corridor G/T 2 is relatively narrow along the section extending from north of Mossdale to south of Laurieston, due to the presence of the Laughenghie and Airie Hills SSSI and the higher ground of Laurieston Forest to the west and the Woodhall Loch SSSI to the east.

In relation to New Galloway, as set out within paragraph 5.9 of the *Routeing and Consultation Document*, at the corridor identification stage settlements were defined as those areas identified within development plans and mapped as 'areas of highest environmental value'. These were then taken account of at the corridor identification and appraisal stage. New Galloway is identified within the development plan as a settlement and has therefore been mapped as such and taken account of during routeing to date. During the subsequent route option identification and appraisal stage, in addition to mapping the settlement of New Galloway, a 150m 'trigger for consideration zone' will be applied to all residential properties, including those which collectively comprise New Galloway. These will be avoided where possible in the identification of route options.

You can find out more about this study and the appraisal of potential siting areas in our *Routeing and Consultation Document*, which is available on our website at www.spendgsr.co.uk.

SPEN's alternative corridors

Summary of comments received

8.2.6 It was pointed out that corridors G/T 3 and G/T 4 were omitted in Chapter 6 of the Routeing and Consultation Document.

8.2.7 There was support for the alternative corridor G/T4 which includes the existing 132kV line and encouragement for SPEN to maintain this route, or upgrade it. It was noted that the proposed line would be the same capacity as the existing overhead line and a query made whether SPEN might have overestimated the need for extra capacity in this area.

8.2.8 There was a feeling that the increase in tower height would be less significant than building a new line in a new area, and that people, the landscape and birds were accustomed to it. There was a belief that the existing line did not affect views from key points on Loch Ken.

8.2.9 It was suggested that replacing the existing route, in G/T 4, would avoid the buffer to the Galloway and Southern Ayrshire Biosphere.

SPEN's response

8.2.10 Although corridors G/T 3 and G/T 4 were identified within the *Routeing and Consultation Document* in Figure 6.1b, there is an omission in Chapter 6 of the document whereby the description of these two corridors is missing. However, this does not alter the conclusions of the routeing study as corridors G/T 3 and G/T 4 were appraised fully, as presented in Appendix 4.

8.2.11 For information about the routeing process we carried out to identify and appraise corridors containing an existing overhead line please see section ***Consideration of corridors containing existing lines*** from paragraph 7.2.46.

8.2.12 The existing route crosses Loch Ken which is designated as an SSSI, SPA and Ramsar site. The Flooded Valley LCT around the Loch Ken area is also considered to be sensitive in landscape terms and has a higher density of residential properties, particularly around the loch edge, relative to the preferred corridor (G/T 2) which in its northern half passes through sparsely populated areas of coniferous woodland.

8.2.13 A like-for-like replacement of the current transmission network doesn't meet the main drivers of the KTR Project as outlined in paragraph 2.2.6, namely replacing ageing assets and increasing network capacity. The existing towers are approaching the end of their life, and in Zone 3 we need to replace a single circuit line with a double circuit line so we need a different tower design with six arms instead of three. Also, it would not be possible for any new overhead line to follow the exact alignment of the existing, because this would need to be built at a safe distance before the existing line could be removed, to ensure continued electricity supplies.

8.2.14 The present 132kV network doesn't have sufficient capacity to deliver what society needs in future. Our *Background to Need Case* document explains this in more detail. However, we are continually reviewing our detailed analysis of network capacity and system constraints, and developing our technical options against a number of possible generation scenarios which could occur in the future.

Suggested modifications to SPEN's corridor/s

Summary of comments received

Respondents made a number of suggestions for modifications to corridors in Zone 3:

8.2.15 a) Some respondents suggested that the preferred corridor (G/T 2) should be extended further west or that further consideration should be given to corridor G/T 1. This could include routeing the corridor through Glengap and Laurieston forests and up Cairn Edward Hill to avoid sensitive areas and visual impact on villagers and tourists.

8.2.16 b) Variations on the alternative corridor G/T 1 were suggested, taking possible routes through the plantation to the west of Loch Skerrow to south of the White Top of Culreoch, then west to rejoin the Laurieston Forest plantation north of Loch Whineon. This suggestion included sections of undergrounding.

8.2.17 c) Deviations from preferred corridor G/T 2 were suggested, in order to hide lines using the forest plantation, heading west, then south of Stroan Loch and then the plantation north and west of Airie Hill. The corridor would run south from a point south of Bennan Hill, through a dip in the landscape south of Stroan Hill to re-enter forestry plantation. It was suggested that this would provide routeing options within the plantation from north of Tormollan Hill to Ringford or from the same point to rejoin the original preferred corridor north or south of Laurieston. Undergrounding of the line towards the south of the corridor was part of this proposal.

SPEN's response

8.2.18 a) and b) G/T 1 was considered as part of the corridor appraisal. However, this resulted in a much longer corridor which would have brought the overhead line close to an NSA. It also reduced line routeing opportunities close to the existing overhead line on the approach to Tongland substation. Any variations on the same corridor are likely to result in similar findings in relation to the environment as well as affecting the SSSI located adjacent to the east of G/T 1.

8.2.19 c) We have considered the comments about modifications to our preferred corridor G/T 2. In response, we propose to widen the corridor to the west near Mossdale (where it does not encroach on areas of highest environmental value) to incorporate the Laurieston Forest. This will enable us to consider line route options within an extended corridor area. Please also see our conclusions at the end of this section and in Chapter 11.

Suggested new corridors

Summary of comments received

8.2.20 It was suggested that the existing route between Dumfries and Tongland could be retained.

8.2.21 It was suggested that the existing route between Dumfries and Tongland could be moved slightly east, possibly following the route of the A713 north around Hardgate.

SPEN's response

8.2.22 Using the existing route, or moving this slightly to the east, would take potential line route options closer to, or directly across, the Loch Ken Special Protection Area. It would also traverse a landscape considered to have a lower capacity to accommodate overhead lines (Flooded Valley LCT); have potential effects on recognised viewpoints at Bennan Hill and Lock Ken viaduct; potentially parallel the Robert Bruce and Galloway Kite trails over a prolonged distance; and pass through a more densely populated area with fewer opportunities to maximise offset from residential properties at line routeing stage. At the southern extent, which includes the crossing of the A75, the preferred corridor offers detailed routeing opportunities to follow closely the alignment of the existing 132kV line, which will be removed. For further information on the appraisal of corridor options between Glenlee and Tongland, please refer to Appendix 4 of our *Routeing and Consultation* document.

8.2.23 In relation to a potential route linking to the existing route adjacent to the A713, the new overhead line must run between the required connection points (substations), which means that for parts of the project there is no technical requirement for an overhead line following the existing network. This is the case between Dumfries and Tongland.

Suggested routes

Summary of comments received

8.2.24 There was a suggestion that the line should avoid the A762 as much as possible and be carefully routed to avoid skylines.

8.2.25 Some respondents felt that any new line should be placed within the conifer plantation as much as possible to minimise the impact on conservation, tourism and property.

8.2.26 There was a suggestion that the route should be well to the west of the corridor, travelling from G2 to Flintock Hill, then Peal Hill, then west from Stroan Loch and into the forest.

8.2.27 There was a suggestion any lines should be to the far west of the preferred corridor, or even further west, with a possible route through conifer plantations between Stroan Bridge and the quarries at Craigelwhan. It was felt this would pass west of Kenick Burn picnic site and have minimal impact on ancient woodland and residential properties. It was also felt to be beneficial to create a cleared ride through the plantations for Red species birds like nightjar and black grouse.

8.2.28 It was felt that any line should run well below the summit ridge of Cairn Edward Hill, and west of Bennan Hill, so as not to be seen from the Glenkens and Loch Ken, and well east of Stroan Loch, possibly within the forest.

SPEN's response

8.2.29 We have noted people's views, however, we are not yet at the stage of considering route options within corridors. This is because we need feedback from the first round of consultation to inform the methodology for identification of line route options. We propose to widen the corridor to the west near Mossdale (where it does not encroach on areas of highest environmental value) to incorporate the Laurieston Forest. This will enable us to consider line route options within an extended corridor area. Potential routes will be identified during the next step of the routeing process once we have confirmed the proposed corridors and substation siting areas to take forward, informed by the consultation feedback and the results of further environmental and technical assessments.

Environment, landscape and amenity considerations Summary of comments received

8.2.30 It was pointed out that the *Dumfries and Galloway Wind Farm Landscape Capacity Study (2011)* identifies the Laurieston landscape unit as having high and medium sensitivity, which should not be used for wind turbines, and felt that should apply to steel lattice towers as well.

8.2.31 There was concern about the amount of forest that would need to be cleared within the preferred corridor. There was reference to recent clear felling in the area which meant there was less opportunity for screening.

8.2.32 In this area, it was mentioned that the existing lines and towers were frequently well used by several species of birds. A number of other important flora and fauna were also identified, which respondents felt required consideration.

8.2.33 Respondents identified a number of specific areas as being valued for wildlife, habitats, cultural heritage, landscapes and views.

8.2.34 There was a request for information about the priority SPEN had given to avoiding properties and settlements.

SPEN's response

8.2.35 We used the landscape character types (LCT) identified in the regional suite of landscape character assessments published by Scottish Natural Heritage (SNH) in the 1990s as the starting point for the landscape baseline. This includes the *Dumfries and Galloway Landscape Assessment SNH Report No. 94*, prepared by LUC consultancy in 1998, and was supplemented with more recent landscape capacity study findings, mainly in relation to wind farms, including the *Dumfries and Galloway Wind Farm Landscape Capacity Study (Main Report Carol Anderson/Alison Grant 2011).* For each LCT which fell within a corridor we looked at its key characteristics to evaluate the LCT's susceptibility to being changed by overhead lines or substation infrastructure of the type proposed. Each LCT was then categorised as having higher, medium or lower capacity to accommodate the type of development proposed. Appendix 3 of the *Routeing and Consultation Document* provides further detail on the criteria used to determine landscape capacity.

8.2.36 Any requirement to fell forestry to accommodate the overhead line will be taken into account during the line routeing and appraisal stage and an assessment of the effects of felling forestry will be undertaken as part of the EIA.

8.2.37 Care for the environment is extremely important to us and, as part of our studies during this phase of routeing, we identified and tried to avoid areas of highest environmental value. Sites designated regionally or locally will be mapped and avoided where possible during the next phase, which is the line routeing stage, and in the subsequent EIA process. Collation of ornithological information will be undertaken in consultation with SNH and RSPB and the Raptor Study Group to inform line routeing. Subsequently detailed field surveys for breeding/nesting birds and flight surveys will be undertaken to inform the alignment and the EIA process.

8.2.38 All local areas, sites and features which people have identified as important for wildlife, archaeology, recreation, tourism, development and views have been noted and will be taken into account during the line routeing and substation siting stage where possible.

8.2.39 At this stage of the routeing process (identifying preferred corridors) we mapped areas of highest environmental value, including settlements (which are identified in Local Development Plans) which were avoided where possible. The next stage of the process (line routeing) will involve the mapping of individual properties. On grounds of general amenity we will try to maintain the greatest distance we can, all other things being equal, to individual properties.

Socio-economic considerations

Summary of comments received

8.2.40 Respondents identified a number of places they considered important for tourism and recreation.

8.2.41 There were concerns for the viability of a local shop.

8.2.42 Respondents also informed SPEN of proposed economic activity or development plans in the preferred corridor. For the purposes of the report these are being treated as confidential.

SPEN's response

8.2.43 Areas, events and developments identified by respondents during the consultation as important for tourism, recreation, other economic activity, or their own personal land use, have been noted and will be considered where possible during the line routeing and substation siting stage.

8.2.44 We will continue to take account of tourism when the project progresses into the line routeing stage, through identification of tourist features which could be affected by a visual impact, informed by feedback received through the consultation process from the statutory consultees, local interest groups and public. Subsequently we will be assessing the potential impacts on tourism as part of the Environmental Impact Assessment (EIA).

8.2.45 We have appointed a consultant to help us appraise, at a high level, some of the wider socio-economic effects as part of a cost-benefit analysis. This includes assessing any impact on tourism and recreation, job creation and local expenditure on goods and services, alongside many other important factors. This appraisal has been summarised in our Ofgem submission.

Engineering, design and construction considerations

Summary of comments received

8.2.46 Feedback highlighted a number of issues which respondents believed could have an impact on the engineering, design or construction of the DGSR Project, and should be considered:

a) The unsuitability of certain local roads for construction traffic, such as the Slogarie road;
b) Areas at risk of flooding, such as around Holm of Dalry;
c) The amount of forest to be cleared, and the health and safety implications for forestry operations close to overhead lines; and
d) The presence of mineral deposits at Bargatton Farm.

SPEN's response

8.2.47 a) The Environmental Statement, which we will submit as part of our applications for Section 37 consent, will include an outline Traffic Management Plan (TMP) developed with Transport Scotland, the local authorities and the police. If the project gets consent, a detailed TMP would need to be submitted to the local roads authority and this would include assessing the condition of any local roads to be used by construction traffic and the standard of reinstatement post-construction.

8.2.48 b) Flood risk constraints have already been considered in the appraisal of corridors and these will be considered further during line routeing and appraisal, including site specific consultation with SEPA and Dumfries and Galloway Council, where required, during the subsequent line routeing/EIA stage. We will also undertake a full hydrological assessment, including potential for flood risk effects, of the construction and operation of the KTR Project as part of the EIA process.

8.2.49 c) The requirement to fell forestry to accommodate the overhead line will be taken into account during the line routeing and appraisal stage, and an assessment of the effects of felling forestry will be undertaken as part of the EIA. We will also discuss tower siting and wayleaves with forestry landowners at the detailed routeing stage, to avoid, offset or reduce effects on forestry operations where possible.

8.2.50 d) Potential mineral extraction areas identified during the first round of consultation have been noted, and we will continue consultation with developers as appropriate.

Conclusion

8.2.51 **After reviewing all comments and suggestions in detail against i) the overarching KTR Project objective as detailed in paragraph 2.2.9 and ii) the methodology for the identification and appraisal of corridors, as set out in the *Routeing and Consultation Document*, the proposed corridor for the 132kV overhead line between Glenlee and Tongland is G/T2. However, in response to the feedback from the public and consultees to the first round of consultation, we propose to widen the corridor to the west near Mossdale (where it does not encroach on areas of highest environmental value) to incorporate the Laurieston Forest. This will enable us to consider line route options within an extended corridor area. Figure 11.1 in Chapter 11 shows the proposed corridor to be taken forward to the next stage of the routeing process.**

8.3 Zone 4

SPEN's preferred corridor K/G 1

Summary of comments received

8.3.1 There was a view that the preferred corridor K/G 1 was reasonable in broadly following the route of the existing line in this area. There was a feeling that following the existing line as much or as closely as possible would minimise potential impacts in other areas.

SPEN's response

8.3.2 These comments have been noted and will be considered at the line routeing stage.

Suggested new corridors

Summary of comments received

8.3.3 There was a suggestion to replace the existing line with a single new line to the west into the forest park and out of sight of the A713 and residents.

SPEN's response

8.3.4 We have noted people's views, but we are not yet at the stage of considering line route options within corridors. As part of this process we will consider the rationalisation of the existing transmission and/or distribution network infrastructure between Kendoon and Glenlee during the line routeing stage or as a potential mitigation option. Potential routes will be identified once we have confirmed the proposed corridors and substation siting areas to take forward, informed by the consultation feedback and the results of further environmental and technical assessments.

Suggested routes

Summary of comments received

8.3.5 It was suggested that towers should not be placed on the eastern side of the A713 due to potential visibility above the skyline from both the A713 and the B7000 and possible adverse impact on tourism and amenity.

8.3.6 It was felt that any new lines should avoid the A713 valley and residential properties, particularly built-up areas such as Dalry, and go through forestry where possible.

8.3.7 It was also felt unacceptable, from an environmental perspective, to build a line on the eastern side of the Earlstoun and Carsfad dams, or along the course of the River Ken.

8.3.8 It was suggested that SPEN could take the opportunity to move other sections of existing line further into the park area to the west where it could not so easily be viewed by tourists.

SPEN's response

8.3.9 We have noted people's views, but we are not yet at the stage of considering route options within corridors. This is because we need feedback from the first round of consultation to inform the methodology for the identification of line route options. Potential routes will be identified once we have confirmed the proposed corridors to take forward, informed by the consultation feedback and the results of further environmental and technical assessments.

8.3.10 In the Glenkens valley the proposed new overhead line network needs to tie into both the existing network near Polquhanity and into the existing substation at Glenlee, which will be extended. At the line routeing stage a number of line route options will be identified and appraised in the Glenkens valley to meet the overarching routeing objective for the KTR Project.

8.3.11 As part of this process we will consider the rationalisation of the existing transmission and/or distribution network infrastructure as a potential mitigation option.

Environment, landscape and amenity considerations

Summary of comments received

8.3.12 There were comments about increased numbers and size of towers near Dalry, New Galloway and Balmaclellan.

8.3.13 There were concerns that there were no plans to remove the existing line in Zone 4, resulting in the possibility of two overhead lines on either side of the same valley. It was suggested that the lines should be rationalised so that only one was needed.

8.3.14 Respondents identified a number of specific areas as being valued for wildlife, habitats, cultural heritage, landscapes and views.

SPEN's response

8.3.15 We recognise that there is going to be an increase in the number and size of towers in the Glenkens area. The potential for cumulative landscape and visual effects will be considered during the line routeing stage of the project. We will try to identify routes that avoid or minimise potential cumulative effects, particularly in the vicinity of the substation, in accordance with Rule 10 of the Horlock Rules. Cumulative effects, including those resulting from any secondary connections, will also be assessed as part of the subsequent EIA process.

8.3.16 Care for the environment is extremely important to us and, as part of our studies during this phase of routeing and siting, we identified and tried to avoid areas of highest environmental value. Sites designated regionally or locally will be mapped and avoided where possible during the next phase, which is the line routeing stage, and in the subsequent EIA.

8.3.17 All local areas, sites and features which people have identified as important for wildlife, habitats, cultural heritage, landscape and views have been noted and will be taken into account where possible during the line routeing and substation siting stage.

Conclusion

8.3.18 **After reviewing all comments and suggestions in detail against i) the overarching KTR Project objective and ii) the methodology for the identification and appraisal of corridors, as set out in the *Routeing and Consultation Document*, the proposed corridor for the 132kV overhead line between Glenlee and Kendoon is K/G 1. Figure 11.1 in Chapter 11 shows the proposed corridor to be taken forward to the next stage of the routeing process.**

9. Summary of comments relating to the consultation process

9.1 Overview

9.1.1 The following themes emerged in the comments received from the feedback (including the alternative pro formas).

- General matters relating to the consultation;
- The consultation process;
- Consultation materials; and
- Suggestions for future rounds of consultation.

9.1.2 SPEN has considered respondents' comments and responded to them below.

9.2 General matters relating to the consultation

9.2.1 The topics which are identified under this theme include:

- Lack of prior knowledge;
- Meaningfulness of consultation;
- Area of consultation;
- Approach to stakeholders; and
- Level and amount of detail.

Lack of prior knowledge

Summary of comments received

9.2.2 There were a range of responses about the first round of consultation itself. Many respondents commented that they considered the process well-conducted and thorough and welcomed the chance to express their views, while others felt the process inadequate and lacking in information.

9.2.3 Respondents felt they had been taken unaware by the project and that there was not enough notice of the consultation before it started.

9.2.4 There was a feeling that SPEN had been working on the project for several years and by comparison local people had a disproportionately short amount of time to comment. There was a comment that information about the project had not come to light in property searches in 2013.

9.2.5 One respondent referred to a mention of the project in the Scottish Government's Third National Planning Framework (NPF3), which indicated a line further north.

SPEN's response

9.2.6 We welcome the comments about the consultation and are keen to improve it for further rounds. We try to be as clear and open with people as possible, and this means engaging with communities as soon as we have something meaningful to show them. Even then, people's opinions can be split as to whether they believe we should have waited until we have something more concrete or not. It's a balance we try to strike.

9.2.7 At the moment we are only at the stage of identifying broad preferred corridors within which lines could be built. We wouldn't normally consult the public before this point, as there is no information about where new lines might be located. However, we did consult statutory consultees in advance, to explain our routeing methodology and our preferred corridors and substation siting areas.

9.2.8 After receiving several requests we extended the deadline for feedback by a further five weeks to 31 August 2015.

9.2.9 We are committed to working closely with communities, and we take our environmental responsibilities very seriously. There will be further rounds of consultation before we submit any plans as part of the applications for Section 37 consent. At that stage there will also be a formal statutory consultation process. This will probably not be before 2018.

9.2.10 Scotland's Third National Planning Framework (NPF3) is the spatial expression of the Government's economic strategy, which was published in 2014 following consultation. This document sets out a long-term vision for development and investment across Scotland over the next 20 to 30 years at a very high level. NPF3 identifies a high voltage electricity transmission network as a national development. It includes new and upgraded onshore electricity transmission cabling and substations of or in excess of 132kV throughout Scotland. It is not site specific and the map of national developments on page 61 is marked as indicative. The KTR Project is a national development.

Meaningfulness of consultation

Summary of comments received

9.2.11 Respondents expressed doubt that SPEN would take account of their feedback in its decision-making process.

9.2.12 Many felt that SPEN's consultation was too late in the project development and that people should have been given an opportunity previously to influence preliminary strategic options as well as the selection of the preferred corridors.

9.2.13 There was concern at having been presented with a single preferred corridor rather than a choice of all the alternative corridors and siting areas. It was also felt an alternative option, such as undergrounding, might have changed the parameters for assessment.

9.2.14 There were comments that this might be in breach of the *Aarhus Convention on Access to Information, Public Participation in Decision-Making and access to Justice in Environmental Matters* and could be open to legal challenge.

9.2.15 While some respondents acknowledged that this round of consultation was non-statutory, they felt that perceived failings now could not be rectified in future rounds of consultation because fundamental matters would have already been determined. There was a call for the consultation to be restarted from an earlier stage, or for a moratorium.

9.2.16 Respondents felt a thorough cost-benefit analysis of all the alternative options should have been submitted as part of the project documentation.

SPEN's response

9.2.17 Although the design of the project has yet to be determined, the first round of non-statutory consultation has been progressed taking into account guidance from the Scottish Government as outlined in section 3.2 ***Consenting legislation and guidance***. Consultation is a central requirement of the consenting regime. We are committed to giving people the opportunity to comment on our proposals and considering these comments when developing the project.

9.2.18 We considered very carefully the timing in the development process for public engagement to take place. The selection of preferred corridors was a stage at which the public could genuinely influence the project through local knowledge and feedback. The strategic options stage, in which we identified the most suitable connection solution, concentrates on broadly technical issues meaning there is less opportunity for public consultation feedback to influence decisions.

9.2.19 While we highlighted the preferred corridors and substation siting areas within the consultation material, feedback was welcomed on the other corridors and siting areas we considered as part of the first round of consultation. The purpose of this consultation is to test this conclusion whilst also gathering further information on local issues and concerns which will help inform the next stage of the routeing. We are committed to working closely with communities, and we take our environmental responsibilities very seriously. There will be a number of further rounds of consultation before we submit applications.

9.2.20 The Aarhus Convention establishes a number of rights for the public with regard to the environment including: (1) access to environmental information held by public authorities; (2) public participation in the environmental decision making process; and (3) access to justice in environmental matters. The Scottish Government is obliged to comply with the convention and legislation is already in place which secures full compliance with the convention by all public authorities. The public is therefore able to assert their rights under the convention. The public is entitled to receive environmental information held by public bodies such as local authorities and the Scottish Government and to participate in the decision-making process for the KTR Project. The public will have the right to seek to challenge on a point of law any decision taken by Scottish Ministers as part of the consenting process. In addition, SPEN is undertaking its consultation on the project in line with good practice guidance as issued by the Scottish Government and offering the public and organisations the fullest opportunity to comment on and influence the content of the project.

9.2.21 This is the first round of consultation we will carry out before submitting the application for Section 37 consent to be determined by Scottish Ministers. We will continue to consider representations at each stage of the pre-application process.

9.2.22 With regard to missing documents, please refer to ***Errors and omissions*** from paragraph 7.2.25.

9.2.23 A detailed cost-benefit analysis has been carried out. Please refer to ***Cost-benefit analysis*** from paragraph 6.9.18 onwards.

Area of consultation

Summary of comments received

9.2.24 There was a feeling that the consultation zone of 1km around the boundaries of the preferred corridors was too small, and that the project had much wider implications for the economy of Dumfries and Galloway than the zone implied. Some commented that the visual impact of the proposed new overhead line and towers would be further than 1km.

9.2.25 There were various suggestions for a more appropriate consultation area including the whole of Dumfries and Galloway, South West Scotland, all of Scotland and visitors. Additional mailings in centres of population outside the corridors such as Dumfries, Lockerbie or Lochmaben were suggested. As a result some people felt there was a lack of wider public awareness about the project.

9.2.26 There was a suggestion that the size of SPEN's consultation zone had minimised the number of objections.

SPEN's response

9.2.27 Anyone was welcome to make a comment on our proposal or come to one of our exhibitions, irrespective of where they lived, and we received and accepted consultation feedback from around the world. The 1km zone was established to enable us to engage directly with those people likely to be directly affected by the project, and with local knowledge of the area covered by our preferred corridors or close to them. We needed as much detailed local knowledge about things like areas used for recreation, local environmental features people would like us to consider, and any plans they may have to build anything in the corridors. We wrote directly to everyone living within the zone. People in other parts of Dumfries and Galloway were informed using the media. Details are included in paragraph 3.6.21.

Approach to stakeholders

Summary of comments received

9.2.28 There was a perception that community councils were key representatives of the communities affected by the preferred corridors and had not been integral enough to the consultation process.

9.2.29 Respondents felt that the community councils were not given enough notice, or enough time to assess the information and hold meetings. There were comments that the timing of the consultation, falling partly within the holiday period, had further complicated this due to the fact that most councils were in recess and did not meet.

9.2.30 There were comments that community councils should have been provided with hard copies of project documentation for free. There was also concern that there was a charge for copies of the project documents for people.

9.2.31 Respondents felt SPEN needed to work more closely with the local community at grass roots level and involve people more in the selection of corridors. There was a call for better community engagement.

9.2.32 Respondents felt landowners needed information about legal aspects of wayleaves and compensation and should have been invited to bespoke meetings. It was queried when and how landowners in the preferred corridors would be approached.

9.2.33 A number of comments were made in relation to the consultation process being seemingly at odds with SPEN's and its parent company Iberdrola's stated vision and values on protection and respect for people and the environment.

9.2.34 Respondents also expressed the opinion that SPEN's consultation had 'set communities against each other'.

SPEN's response

9.2.35 We wouldn't normally consult the public or community councils before this point, as there is no information about where new lines might be located. However, we did seek the advice of statutory stakeholders in advance, to consult them on our routeing methodology and our preferred corridor and substation siting areas. We are committed to working closely with communities, and we take our environmental responsibilities very seriously. There will be further rounds of consultation before we submit any applications for Section 37 consent.

9.2.36 Our aim was to make project documentation as accessible as possible. We made the documents fully accessible online and at exhibitions, and provided hard copies at a number of well-advertised public information points across the region, such as libraries and local council offices, where people could view them. Copies of the documents were available free of charge on CD. The fees charged for personal printed copies were only to cover the actual cost of printing and postage. The *Routeing and Consultation Document* in particular is a very large and complicated document including a number of fold-out sections, and this was reflected in the production cost.

9.2.37 We will discuss issues with landowners on an individual basis and will compensate them where we need to build any infrastructure on their land. Landowners receive a standard wayleave payment for apparatus located on their land. These rates are the subject of discussion between the National Farmers Union, Scottish Land & Estates and SPEN.

9.2.38 We are committed to meaningful, open and transparent consultation and giving everyone an opportunity to comment on the project. We communicated directly with communities likely to be most directly affected by the preferred corridor. We contacted community councils within the consultation zone, and attended meetings when invited in order to give briefings and answer questions about the project.

Level and amount of detail

Summary of comments received

9.2.39 Many respondents said they found it difficult to comment on the preferred corridors without more detail about potential line routes. In some areas where the corridors were very broad, respondents indicated that the limited information created uncertainty. There was a corresponding view that it was ineffective to consult at a stage before a clear route and sites were available.

9.2.40 Some respondents asked for more information about the need for the project, including detail about the current and future generating potential in the area and who would benefit from the transmission of electricity.

9.2.41 It was felt information should have been much more explicit on the height and size of the new infrastructure, with visual representations to enable people to make a comment.

9.2.42 There was a query whether the consultation process would be rerun if a preferred corridor was not chosen.

SPEN's response

9.2.43 Preferred line route options have not yet been identified. These will be identified during the next step of the routeing process.

9.2.44 Further detail on the need for the project can be found on the project website at www.spendgsr.co.uk.

9.2.45 We have noted the comment about the need for clearer visualisations and will consider this for future rounds of consultation.

9.2.46 Please see Chapter 11 for our conclusions following consideration of the feedback received in this round of consultation.

9.3 Consultation process

9.3.1 The topics which are identified under this theme include:

- Launching the consultation;
- Advertising and publicity; and
- Timing and duration.

Launching the consultation

Summary of comments received

9.3.2 There were reports that some people had not received a leaflet or did not remember receiving it, or had found out about the consultation late, or missed the exhibitions.

9.3.3 Respondents said the project leaflet was badly-designed and/or packaged and felt that it may have been discarded in error as junk mail.

9.3.4 It was felt that more should have been done to inform landowners and property owners, particularly those who did not live in the consultation area, for instance people with holiday homes.

SPEN's response

9.3.5 People living within approximately one kilometre of our preferred corridors were written to directly with a copy of our project leaflet (Appendix F), which was enclosed in a clear polythene wrapper so it could be seen clearly. Around 3,480 were sent out in Zones 3 and 4.

9.3.6 Very few leaflets were returned as undelivered, but we have taken on board people's feelings about the design of the original packaging. Subsequent mailings sent to advise people of the extension to the consultation deadline were enclosed in branded envelopes (Appendix S). We will review the design and packaging again for forthcoming rounds of consultation.

9.3.7 Once more detailed routes are identified, our Land Officers will contact landowners and tenants within the corridors to confirm land ownership and discuss access to land to carry out surveys for the Environmental Impact Assessment (EIA).

Advertising and publicity

Summary of comments received

9.3.8 Respondents felt the consultation should have been publicised more widely and that there was a lack of awareness about the consultation.

9.3.9 There was a query why SPEN had not taken out public notices.

SPEN's response

9.3.10 We took out adverts in the public notices section of four local newspapers covering Zones 3 and 4 - *Galloway News, Galloway Standard, Galloway Gazette* and *Dumfries Courier*. These appeared between 27 and 29 May 27 2015, at least seven days in advance of the first public consultation event. Copies of these can be found in Appendix Q.

9.3.11 People living within approximately one kilometre of our preferred corridors were written to directly with a copy of our project leaflet. We also sent information to the news media by press release, which you can find in Appendix N.

Timing and duration of the consultation

Summary of comments received

9.3.12 A number of respondents felt the time given for them to submit responses was too short, even with the additional five weeks' extension to 31 August 2015. This was in part due to the amount of detailed information, which was perceived as too much for busy lay people to interpret.

9.3.13 People objected to the fact that the consultation ran into the school holiday period, when many people were away, and elected representatives were in recess. Some people viewed this with suspicion, feeling it was undertaken in order to minimise the response to the consultation.

9.3.14 There was a concern that, because the last day of consultation was a bank holiday in England, people may have missed the deadline due to extended postal times.

SPEN's response

9.3.15 The public information events had been specifically timed to fall before the school summer holiday period while allowing an appropriate period of time after the last event for people to respond. However, after receiving several requests we extended the deadline for feedback by a further five weeks to 31 August 2015. The bank holiday was taken into consideration by the community relations team and an allowance was made for the late arrival of postal feedback. All the feedback received by the project has been taken into account.

9.4 Consultation materials

9.4.1 The topics which are identified under this theme include:

- Overall view of the materials;
- Leaflet;
- Feedback form;
- Website;
- Project documents;
- Maps;
- Exhibitions; and
- Information points.

Overall view of the materials

Summary of comments received

9.4.2 There were a range of views about SPEN's consultation materials, with some considering the materials useful and informative and others challenging the accuracy of the data provided. Similarly, a number of respondents felt the consultation materials were too technical and therefore confusing and that there was not enough information.

SPEN's response

9.4.3 We will consider all comments and suggestions when designing and producing the information, materials and supporting documentation for the next round of consultation.

Leaflet

Summary of comments received

9.4.4 Respondents commented that, as a summary, the leaflet was fine. But some suggested that it contained too much emphasis on the benefits of the project, such as line removal, and not enough explanation of what was being proposed.

9.4.5 Some felt the leaflet gave the impression that the project was mainly about upgrading old lines, or that capacity upgrades were for the benefit of Dumfries and Galloway. This was perceived to be disingenuous and misleading.

9.4.6 Some respondents felt the phrase line 'removal' was misleading and should have been 'replacement' due to a net addition of lines as a result of this project.

9.4.7 There was a comment that an image in the leaflet was misleading in that it did not show neighbouring houses and other buildings.

SPEN's response

9.4.8 The project leaflet was designed as an accessible introduction to the project, giving people a broad overview of the project and signposting them to where to find more information, such as at exhibitions, information points or online. It also explained how people could contact the community relations team directly and make comment using a variety of dedicated communications channels. A copy of the leaflet is in Appendix F.

9.4.9 Comments about imagery, useful additions and terminology are welcomed and will be taken into account for future rounds of consultation.

Feedback form

Summary of comments received

9.4.10 There were comments that the feedback form did not address the issues of concern.

SPEN's response

9.4.11 The feedback form was designed to be unrestrictive and questions were left open to encourage as many varied comments as people wished to make. A copy is in Appendix G. The form was only one of a number of acceptable means for people to make comments, as was explained in the consultation materials. Other means included letter and email.

Website

Summary of comments received

9.4.12 There were concerns regarding the consultation website. Some found the maps, documentation and online feedback form hard to find. There was a comment that some links led to blank pages.

9.4.13 There were several comments that the capacity of the online feedback form to take text was too limited – with particular reference to questions 12 and 13.

9.4.14 A few respondents mentioned that the options in the drop-down box for personal title was limited to Mr, Mrs or Miss, which they felt was discriminatory.

9.4.15 A number of people reported having problems submitting the feedback form online.

9.4.16 There was a comment that the resolution of the maps in the downloadable versions of the *Routeing and Consultation Document* was not very clear.

9.4.17 Conversely, a number of respondents commented that the information presented on the website was informative and useful.

9.4.18 There was a view that people without internet access would have found it difficult to access the project information documents and as such it was inappropriate that documents were available mainly online.

SPEN's response

9.4.19 We review and update our website on a regular basis and aim to rectify any issues as soon as we are aware of them.

9.4.20 In light of feedback received during consultation, we adjusted the capability of text boxes and added additional title options before the consultation ended.

9.4.21 We welcome the comments made on the website and will take these into account for future rounds of consultation.

9.4.22 We accept that for some people website access is an issue, especially in a rural area, which is why we made hard copies of information available at many public information points.

Project documents

Summary of comments received

9.4.23 There was appreciation for SPEN's detailed background work and assessments outlined in the project documents.

9.4.24 There was a suggestion that details in the document had changed after publication.

9.4.25 Respondents requested a clearer explanation of how SPEN intended to mitigate the impact of the project on residents, the wildlife and scenery, and address the reduction in monetary value of property as the result of the project.

9.4.26 Respondents were unsure how areas were chosen or how SPEN intended to meet its stated aim of balancing the technical, environmental and economic needs of the project.

9.4.27 It was felt that more information should have been supplied about corridor width, the design of the towers and the amount of area the project would sterilise for future development. There was a further suggestion that information should have been provided on matters such as access for construction and maintenance, the impact on roads and the presence of other infrastructure.

9.4.28 There was also a comment that not enough information had been provided about the issue of electric and magnetic fields (EMFs) in that the only mention was in a referred document written by National Grid. It was stated that this does not comply with the two Codes of Practice on EMFs from overhead lines published by DECC in March 2012 and agreed by the National Grid and the Energy Networks Association (ENA).

SPEN's response

9.4.29 There were no changes to documentation subsequent to publication.

9.4.30 At this early stage in the design process we are seeking people's views on broad corridor areas. Our aim in mitigating the impact of the project has been to avoid areas of highest environmental value. As the project progresses into more detailed routeing we will be able to look at more detailed localised ways of mitigating the impact. For information on property values, please see ***Effect on property values*** paragraph 7.5.20.

9.4.31 Please see Chapter 11 for our conclusions following consideration of the feedback received in this round of consultation.

9.4.32 We welcome comments about the level of detail in the project documentation and will take them into account when designing the project documentation for the next round of consultation. At this early stage in the design process we are seeking people's views on broad corridor areas and substation siting areas. Detailed information about specific construction impacts and the presence of existing buried infrastructure at individual locations will be available once we move into the next stage of the routeing process.

9.4.33 We understand people's concern about EMFs and have answered people's queries openly and transparently. Copies of the Energy Networks Association's publication *Electric and Magnetic Fields, the Facts* was made available at exhibitions and on request by phone, email and letter, and we will include a link to the online version on our project website in future rounds of consultation. Please also see the section ***Health and electric and magnetic fields (EMFs)*** from paragraph 7.6.9. We will take these comments into account when planning future rounds of consultation.

Maps

Summary of comments received

9.4.34 Some respondents felt the quality of the maps in the leaflet, online and at the information points lacked definition. It was felt it would have been more helpful if larger-scale maps had been available.

SPEN's response

9.4.35 Maps were somewhat limited by file size and print size online and at information points but large-scale high definition maps were available at exhibitions and excerpts were provided by email where requested.

Exhibitions

Summary of comments received

9.4.36 Respondents said staff at SPEN's exhibitions were well-informed, helpful and approachable. However, some people felt they received vague or contradictory answers to some questions and that staff had displayed lack of personal knowledge of the local area.

9.4.37 It was felt difficult to get access to the maps at busy times due to them being on tables rather than display boards.

9.4.38 Some respondents felt the venue for the exhibition in Kirkcudbright should have been in the town centre rather than at the community centre.

9.4.39 There was a comment about the drop-in event organised at the request of Tongland and Ringford Community Council which had not been advertised by SPEN. It was felt that this had resulted in low numbers. It was suggested that the reason given for not advertising was that SPEN staff had felt overwhelmed at a previous event.

9.4.40 Some respondents felt a more formal, debate-type meeting would have been helpful at which topics could have been discussed.

9.4.41 There was a suggestion that an independent professional, such as a planning official, should also have been at the exhibitions to give people impartial advice.

SPEN's response

9.4.42 We welcome comments on the availability and presentation of information at exhibitions, as well as the suitability of the venues used, and will take them into account when planning the exhibitions for the next round of consultation.

9.4.43 We advertised and arranged two public drop-in exhibitions across consultation zones 3 and 4. In addition, project staff attended a number of meetings arranged by other organisations, such as community councils. These took a number of formats. Some were attendance at formal meetings, others were local drop-in events. However, advertising and promotion of these events was the responsibility of the event organiser.

9.4.44 There are a number of ways of presenting information, but experience has shown us that most people prefer to discuss their individual concerns and locations on a one-to-one basis with reference to local maps. A drop-in exhibition is one of the best ways to do this. It allows us to explain the project at an individual level and attempt to address people's specific questions as they arise. Having a range of relevant specialists on hand allows people first-hand access to a number of experts in the same room. Feedback suggests most people get more out of this approach.

9.4.45 Members of the project team, including independent environmental consultants, were on hand at public exhibitions to discuss all aspects of the project. While it would not be appropriate to have a planner present due to their role in the decision-making process, SPEN has actively engaged with the local planning authority and parties are able to contact planning officials directly should they wish to discuss any matter.

Information points

Summary of comments received

9.4.46 Respondents felt locations for information points offered limited access at evenings or weekends.

SPEN's response

9.4.47 We welcome comments about locations and opening times of information points and will take these into account for the next round of consultation.

9.5 Suggestions for future rounds of consultation

Summary of comments received

9.5.1 Respondents felt the use of 3D visual imagery, or images of the proposed line against actual landscape or satellite photographs, would have helped people understand the scale and impact better.

9.5.2 It was suggested that a questions and answers section in plain English would have been helpful.

9.5.3 Several people expressed a hope that SPEN had adopted lessons learned from the experience of communicating over the Beauly to Denny project.

9.5.4 There was a suggestion to include a smaller map of the whole route with a series of more detailed ones of each area.

9.5.5 There was a comment that SPEN should proactively educate people about the project more, to help them understand that everyone needs electricity.

9.5.6 There was a request to improve the information provided about electric and magnetic fields (EMFs).

9.5.7 It was suggested that a section on how local suppliers can benefit from the scheme should be included.

9.5.8 A number of means to advertise future rounds of consultation locally were suggested, such as advertising in shops, pubs, community centres, libraries, post offices, health centres, supermarket noticeboards, erection of static displays in village halls or empty shop windows and the use of temporary banners on exhibition days.

9.5.9 It was suggested that more information should be shared with communities via community and parish councils.

9.5.10 It was suggested that future mailings be sent to named householders in clearly marked envelopes identified as containing important information about overhead lines in your neighbourhood.

9.5.11 Requests for paper versions of reports to be made available for residents with poor or no internet.

SPEN's response

9.5.12 We are committed to working closely with communities. We welcome suggestions to improve the range of information, the design of materials, maps and project documentation, and for potential venues and arrangements for events during the next round of consultation. We plan to use 3D visualisations to assist with future rounds of public consultation. This was not possible during the first round of consultation as we were not discussing detailed routes.

9.5.13 It is too early to say how local suppliers might benefit from the project at this stage, as we do not yet know exactly where infrastructure will be built. Much of the work involved in building electricity transmission infrastructure is specialised, but we will work with local agencies and main works contractors to benefit local suppliers as much as possible.

9.5.14 We used the latest available lists from the Royal Mail to compile databases based on the mapping of postcodes in areas we needed to reach. This does not include personal information, only addresses. It is not possible to associate people's name to their address unless they write in to us.

9.5.15 Folders containing the consultation feedback report will be made available at public information points when the report is published. CD copies will also be sent to community councils.

10. Evaluation of consultation with members of the public

10.1 Overview

10.1.1 The information in this chapter relates to consultation with members of the public. Feedback from statutory and non-statutory stakeholders, community interest groups and MPs and MSPs is contained within Appendices A to E of this document. Please refer to Chapter 3 for details of consultation with these groups of stakeholders.

10.2 Who took part?

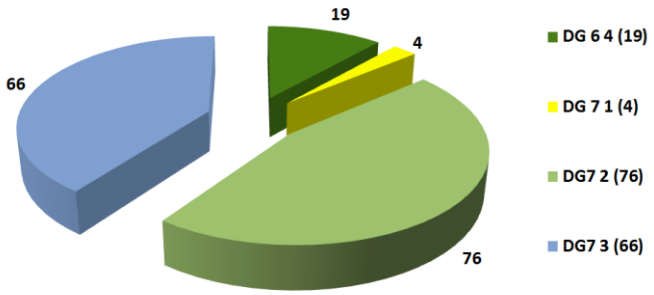
10.2.1 A total of 135 visits were recorded to the public consultation events. Appendix T details the number of attendees to each consultation event. During the first round of consultation, the website received 4,700 visits. This figure represents all visits to the website for the entire DGSR Project.

10.2.2 These figures represent a very small proportion of those people made aware of the project through leaflets, letters, local adverts and other awareness-raising activities. It may be that those who did not respond chose not to do so, perhaps because they felt the project did not affect them, or they were unconcerned. It is possible that they did not feel strongly enough, either positively or negatively about the proposals, to attend or forward concerns/ideas, or that they had at this stage no additional views to add.

10.2.3 An *'About You'* section on the project's official printed and online feedback forms (Appendix G) was used to monitor information given by the respondents. This monitoring exercise gathered information about those choosing to respond to the first round of consultation. The data collected included names/organisations, addresses, email addresses and age categories. Although not all respondents provided the information in its entirety, it gives an indication about which sectors of the wider community took part. This will be assessed by SPEN to improve the reach and penetration of future rounds of consultation.

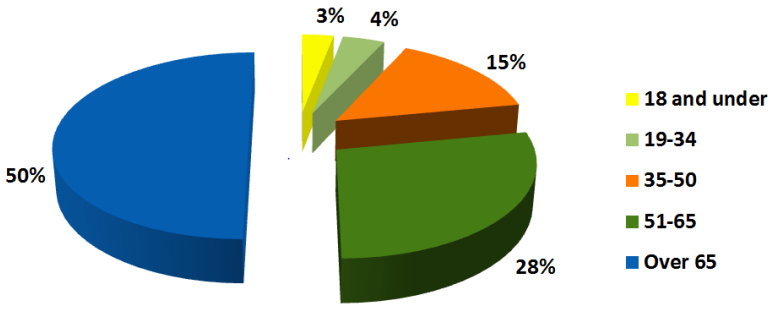
10.2.4 From the feedback received, 165 people in Zones 3 and 4 supplied postcodes enabling their location to be tracked. The locations of all respondents who supplied this information is shown in Chart 10.1 'Locations of all Respondents in Zones 3 and 4 (where given)'.

Chart 10.1 Locations of all Respondents in Zones 3 and 4 (where given)



10.2.5 From the feedback forms which included comments on Zones 3 and 4, 159 people identified their age group. The breakdown is shown in Chart 10.2 'Ages of Respondents who Commented on Zones 3 and 4 (where given)'.

Chart 10.2 Ages of Respondents who Commented on Zones 3 and 4 (where given)



10.3 Ongoing consideration of feedback

10.3.1 SPEN will continue to consider the local information people provided in their feedback to inform the project's development and to improve communication strategies for the next round of consultation.

10.3.2 SPEN will keep communities up to date as its proposals move forward and there will also be further opportunities for people to provide feedback during future rounds of consultation.

11. SPEN's conclusions following the first round of consultation

11.1 Overview

11.1.1 SPEN has reviewed and considered in detail all feedback received from the public, consultee bodies and local interest groups in relation to the first round of consultation for those elements of the original DGSR project which are to be progressed, specifically within consultation Zones 3 and 4.

11.1.2 The feedback received has informed SPEN's review of the KTR Project with regard to the following:

- People's views on the project as a whole, including the routeing methodology;
- People's views on SPEN's corridors;
- Information about the local area, for example, areas people use for recreation, local environmental features people wanted us to consider, and any plans people had to build anything in our preferred corridors; and
- People's views on conducting future rounds of consultation.

11.1.3 The following headings outline our conclusions on the feedback we received and explain the next steps.

11.2 Need case and strategic options

11.2.1 There were numerous comments on SPEN's need case and the strategic options which had been considered. These comments are presented in Chapter 6.

11.2.2 Although SPEN was not consulting on these issues, it understands and appreciates people's desire to see more detail on the need case and strategic optioneering and how these have ultimately influenced the project.

11.3 Routeing and siting

11.3.1 As outlined in Chapter 2, SPEN's overarching objective for the Kendoon to Tongland 132kV Reinforcement (KTR) Project is:

"To identify a technically feasible and economically viable route for a continuous 132kV overhead line connection supported on lattice steel towers from Polquhanity to Kendoon, from Kendoon to Glenlee, and from Glenlee to Tongland. The project is also required to identify new 132kV overhead line connections supported on Trident wood poles from Carsfad to Kendoon , and from Earlstoun to Glenlee. This route and the related connections should, on balance, cause the least disturbance to the environment and the people who live, work and recreate within it."

11.3.2 In relation to corridor selection, as outlined in Chapter 8, a number of feedback responses were received from the public, consultee bodies and local interest groups suggesting either:

- A preference for the SPEN preferred corridor in a particular location;
- A preference for an alternative corridor identified by SPEN;
- Suggested modifications to a corridor identified by SPEN; or
- Suggestions for new corridors.

11.3.3 SPEN and its planning and environmental advisers reviewed each of these suggestions in detail against:

- The overarching KTR Project routeing objective; and
- The methodology for the identification and appraisal of corridors, as set out in the *Routeing and Consultation Document*.

11.3.4 Where feedback suggestions conflicted with the project objective and/or the methodology, these suggestions have not been taken forward by SPEN and the explanation for this is set out in Chapter 8.

11.3.5 Where feedback suggestions were considered viable options for routeing, these are being taken forward by SPEN to the next stage of the routeing process. In terms of the KTR Project, this has resulted in corridor G/T 2 being extended (widened) as outlined in paragraph 8.2.51.

11.3.6 On this basis SPEN's proposed corridors are set out below by consultation zone and are shown on the map in **Figure 11.1**.

11.4 Confirmation of proposed corridors

Zone 3: Glenlee to Tongland (see Figure 11.1)

11.4.1 The preferred corridor G/T 2 has been selected as SPEN's proposed corridor for the 132kV overhead line between Glenlee and Tongland. However, as the result of feedback received during the first round of consultation, SPEN will extend the corridor to the west in the vicinity of Mossdale, to incorporate the Laurieston Forest.

Zone 4: Glenlee to Kendoon (see Figure 11.1)

11.4.2 The preferred corridor K/G 1 has been selected as SPEN's proposed corridor for the 132kV overhead line between Glenlee and Kendoon.

11.5 Consultation process

11.5.1 SPEN has listened carefully to the comments and suggestions about the process of the first round of consultation. As a result, a number of changes will be considered as part of the consultation strategy for the second round of consultation. This strategy will be discussed and agreed with the Statutory Stakeholder Liaison Group (SSLG). Proposed changes to the consultation strategy for the second round of consultation will include:

- Correspondence relating to the project will be mailed in branded envelopes, to help people recognise it as project information and not marketing material;
- The difference in height and design between existing and proposed towers will be made clearer in future consultation materials, where appropriate;
- Supporting documentation to explain the process and provide further information on decision-making will be published as and when it becomes available;
- During consultation periods, the online feedback form will be continually reviewed in response to comments;
- Data storage devices containing higher resolution versions of key project documents will be available on request at a lower cost than printed copies;
- Copies of information leaflets about electric and magnetic fields (EMFs) (prepared by others) will be made available at information points and online and will be available on request;
- A5 posters will be made available for local notice boards and other community display points to maximise awareness of the consultation and exhibitions; and
- An alternative, more central venue will be sought for future exhibitions in Kirkcudbright.

11.6 Next steps

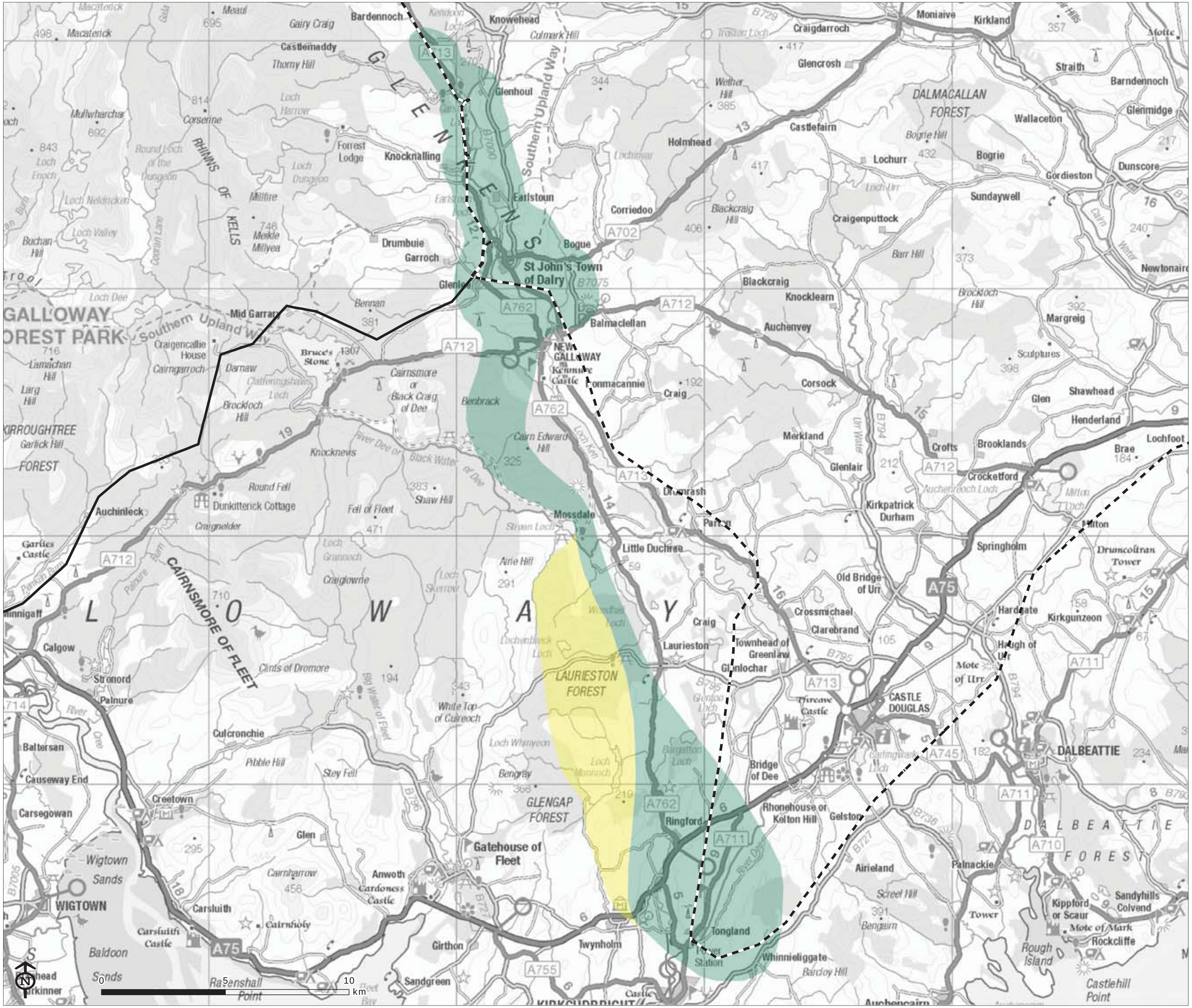
11.6.1 The next stage of the routeing process is the line routeing stage, comprising Steps E to G of the overarching routeing methodology, which is outlined in Chapter 2 (**Figure 2.2**). The route selection steps will involve the desk-based collation of more localised data e.g. individual properties and locally designated sites/features, supported by field work, to identify and appraise overhead line route options. It will also continue to take account of information about local constraints received through feedback during the first round of consultation.

11.6.2 This stage will culminate in the identification of preferred routes for the KTR Project. Information collated from feedback received as part of the first round of consultation relating to regionally and locally important areas and features will be reflected in the methodology where relevant.

11.6.3 Following the identification of preferred routes, SPEN will hold a second round of consultation to gather feedback on them.

11.6.4 Responses to the second round of consultation will be used to review and test the conclusions of this process on these preferred routes. Following the conclusion of this review, SPEN will confirm the proposed routes to be progressed to the EIA stage.

11.6.5 The work carried out in this stage of the routeing process, together with the process for consulting on it, will be explained in documentation accompanying the second round of consultation.



Kendoon to Tongland 132kV Reinforcement Scheme

Figure 11.1: Proposed Corridors

Proposed Corridor

Proposed Corridor Extension

Existing 132kV overhead line

Existing 132kV line to be removed

Map Scale @ A3:1:150,000

LUC

SP ENERGY NETWORKS

CB:SR EB:nunn_j LUCGLA FIG08-01_6104-001-r0_Proposed_Corridors 30/06/2016

Source: National Grid

Glossary

Amenity: A positive element or elements that contribute to the overall character, enjoyment or value of an area. For example, open land, trees, historic buildings and the interrelationship between them, or less tangible factors such as tranquillity.

Ancient woodland: Woodland that has existed continuously since at least AD 1600.

Biodiversity: The variety of life forms, the different plants, animals and microorganisms, the genes they contain and the ecosystems they form.

Consultation Strategy: The Consultation Strategy which is based upon planning principles for a National Development for overhead transmission lines (in Scotland) and Nationally Significant Infrastructure Projects (in England) and current Government guidance, and will involve local authorities, communities and statutory consultees early in the project development to bring about benefits for all parties.

Consultation zone: The consultation zone for the DGSR Project which extends approximately 1 km either side of the broad corridors.

Converter station: a specialised type of substation which forms the terminal equipment for a high-voltage direct current (HVDC) transmission line. It converts direct current to alternating current or the reverse.

Corridor: A swathe of land between two substations within which potential routes for overhead lines may be sought.

Cost-benefit analysis: A process by which business decisions are analysed. The benefits of a given situation or business-related action are totalledand then the costs associated with taking that action are subtracted.

Cumulative impact: Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions, together with the project.

Designated area: Area designated and protected by national or international law for its landscape, biodiversity, or historic interest.

Ecological Clerk of Works (ECoW): ECoWs ensure that planning conditions are adhered to and that operatives do not break the law; particularly important when working near sensitive sites, such as an SSSI.

Electric and Magnetic Fields (EMFs): Electric Field: A measure of the force experienced by a static electric charge in the presence of the other electric charges. Magnetic Field: A measure of the force experienced by a moving electric charge, due to the motion of other charges.

Environmental Impact Assessment (EIA): The statutory process of gathering environmental information; describing a development; identifying and describing the likely significant environmental effects of the development; defining ways of preventing/avoiding, reducing or offsetting any adverse environmental affects; consulting the public and specific bodies with responsibilities for the environment and presenting the results to the decision maker to inform the decision on whether the development should be approved.

Environmental Statement (ES): A document which includes all of the environmental information which is reasonably required to assess the environmental effects of a development having regard to current knowledge and methods of assessment and produced in accordance with the EIA Regulations.

Holford Rules: Guidance for the routeing of new high voltage overhead transmission lines.

Horlock Rules: Guidance for the siting and design of new substations.

HVDC (high-voltage direct current): A highly efficient alternative to alternating current for transmitting large amounts of electricity over long distances and for special purpose applications.

Kilovolt (kV): 1,000 volts.

Landscape and Visual Impact Assessment (LVIA): A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as a resource and on people's views and visual amenity. May form part of the Environmental Impact Assessment.

Landscape capacity: The degree to which a particular landscape character type or area is able to accommodate change without unacceptable adverse effects on its character. Capacity is likely to vary according to the type and nature of change being proposed.

Landscape character: The distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape.

Landscape character type (LCT): Distinct types of landscape that are relatively homogeneous in character. A landscape type will have broadly similar patterns of geology, landform, soils, vegetation, land use, settlement and field pattern discernible in maps and field survey records.

Low carbon generation: Electricity that comes from processes or technologies that cause lower amounts of carbon dioxide emissions than is emitted from conventional fossil fuel power generation.

Megawatt (MW): 1,000,000 watts.

Moratorium: a delay or suspension of an activity or a law.

National Grid Electricity Transmission (NGET): The company which is the GB electricity transmission network System Operator, responsible for operating the over 275kV electricity transmission network in England and Wales and for overseeing the operation of the 275kV and 400kV networks across Scotland, England and Wales.

National Scenic Area (NSA): A conservation designation used in Scotland, and currently administered by Scottish Natural Heritage. NSAs are defined as having outstanding scenic interest or unsurpassed attractiveness.

Nationally Significant Infrastructure Project (NSIP): A definition which applies in England and Wales to large projects that support the economy and vital public services, including railways, large wind farms, power stations, reservoirs, harbours, airports and sewage treatment works, as defined in the Planning Act 2008.

Need case: Document setting out the background requirements and need for extensions/reinforcements to SPEN's electricity transmission system in response to connection applications to ensure that SPEN complies with its licence standards.

Non-statutory consultees: Consultees who, whilst not designated in law, are likely to have an interest in a proposed development.

Ofgem: The Office of the Gas and Electricity Markets (Ofgem) is the regulator for Britain's gas and electricity industries, its role is to promote choice and value for customers.

Overhead Line: An electricity line installed above ground usually supported by lattice steel pylons or wooden poles.

Preferred Corridor: Culmination of the Step D appraisal, the preferred corridor is identified following technical and environmental considerations. (Step D is the Approach to Appraisal of Route Corridor Options and Substation Siting Areas in the Routeing and Consultation document).

Preferred Substation Siting Area: culmination of Step D (see above) appraisal, the preferred substation siting area is identified following technical and environmental considerations.

Proposed corridor: The corridor selected following a review of feedback in the first round of consultation to go forward to the next stage of the routeing process, which is the identification and appraisal of line route options.

Proposed substation siting area: The siting area selected following a review of feedback in the first round of consultation to go forward to the next stage of the siting process, which is the identification and appraisal of substation site options.

RIIO-T1: The first transmission price control review which set out what the transmission network companies are expected to deliver and details of the regulatory framework that supports both effective and efficient delivery for energy consumers over the eight years from 2013 – 2021. Regulated by Ofgem.

Regional Scenic Area (RSA): An area of scenic value at the regional scale which has a level of protection in Dumfries and Galloway Council's Local Development Plan.

Schedule 9 Statement: A document which sets out how a company aims to incorporate environmental considerations into its business according to duties under Schedule 9 of the Electricity Act 1989.

Site of Special Scientific Interest (SSSI): The main national conservation site protection measure in Britain designated under the Wildlife and Countryside Act 1981.

Socio-economic impact: The impacts development has on community social and economic well-being.

SPEN: ScottishPower Energy Networks or SP Energy Networks, the company responsible for the development, operation and maintenance of electricity transmission and distribution networks in Central and Southern Scotland.

Statutory Stakeholder Liaison Group (SSLG): A group made up of the DGSR Project's statutory stakeholders from both Scotland and England. The main aim of this group is to ensure good lines of communication with statutory consultees and to discuss the key planning, landscape and environmental matters relating to the project.

Statutory consultees: Bodies which must be consulted on certain planning and development consent applications as set out in law.

Strategic Wider Works (SWW): A mechanism set by Ofgem as part of the RIIO-T1 price control process, which allows Transmission Owners to bring forward large investment projects. It allows Ofgem to consider the need and funding for these projects during the price control period, so that delivery of these outputs can be brought forward in a timely manner.
Study area: A broad area within which the routeing and siting study took place.

Substation: Infrastructure which controls the flow and voltage of power by means of transformers and switchgear, with facilities for control, fault protection and communications.

Substation Siting Area: An area of land large enough to accommodate each substation design option in a number of locations.

System Operator: The company which operates the GB electricity transmission system as a whole. This is National Grid Electricity Transmission plc (NGET) in Great Britain.

Terms of Reference: a description of the purpose and structure of a project, committee, meeting, negotiation, or any similar collections of people who have agreed to work together to accomplish a shared goal.

Tower: A galvanised steel lattice structure which carries the conductors and earth wires. Each overhead line will require several different types of tower including line, angle and terminal towers. Towers can also be referred to as pylons.

Transmission Operator: The company which owns and maintains the electricity transmission network in an area. In Central and Southern Scotland this is SPEN. In England this is National Grid.

Undergrounding: The name for laying electricity cables in a trench in the ground.

Visual amenity: The value of a particular view or area in terms of what is seen by people whether living, working or travelling through an area.

Volts: the international system unit of electric potential and electromotive force.

Watt: the unit of electric power.

Zone of Theoretical Visibility (ZTV): A computer generated map showing areas of land from which an development is theoretically visible. It is theoretical in that there may be visual barriers, such as buildings or trees, that would screen it. ZTVs can be used as part of a Landscape and Visual Impact Assessment (LVIA).