SP ENERGY NETWORKS

Glenlee Substation Extension

Pre-Application Consultation (PAC) Report

SP Energy Networks

September 2019

Glenlee Substation Extension

Proposed extension, road improvements, landscaping and temporary construction works

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August 2019

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Executive summary

This report summarises the pre-application consultation carried out by SP Energy Networks (SPEN) for the proposed extension to the Glenlee electricity substation.

It accompanies the planning application and associated documents submitted to Dumfries and Galloway Council.

SPEN carried out two rounds of public consultation on the proposals.

The first round of consultation ran from Monday 12 March 2018 to Friday 06 April 2018, and sought people's views on the proposed extension, road improvements and landscaping proposals.

The majority of feedback received during the first round of consultation was from local residents asking SPEN to consider extending the substation on the far side of Glenlee hydro power station, further away from nearby homes.

After considering this feedback, SPEN investigated a range of potential alternatives, and in October 2018 published an *Appraisal of Alternative Substation Options* Report which confirmed the site originally proposed should be taken forward.

SPEN took particular note of concerns raised by Glenlee residents living closest to the application site, and has since been working closely with them, both individually and collectively, to find ways to minimise disturbance to them and their properties.

Whilst substation development does not fall under the schedules of development set out within the Town & Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, SPEN elected to carry out a full Environmental Impact Assessment (EIA) of the proposals to ensure that the effects of the substation are considered alongside those of the wider KTR Project. The EIA assesses potential construction impacts, so the 'red line boundary' on the original plans was extended to include temporary as well as permanent works.

Following the decision to extend the application site boundary, SPEN carried out a second round of public consultation from Monday 10 June 2019 to Friday 05 July 2019, seeking people's views on the proposed extension, road improvements, landscaping and temporary construction works (including construction compounds, vehicle holding area and drainage measures).

Feedback received during both rounds of consultation has been taken into account in the design of the scheme, and issues raised have been addressed wherever possible.

1 Background

1.1 Need for the project

1.1.1 Glenlee substation adjoins Glenlee hydro power station on the Water of Ken, near St John's Town of Dalry. The power station is the hub of the network of six Galloway hydro-electric power stations, which are all operated from Glenlee. The substation converts the 11kV (11,000 volts) electricity output from the power station up to grid voltage of 132kV, for onward transmission through the power network.

1.1.2 SP Energy Networks (SPEN) needs to extend Glenlee substation to accommodate the extra equipment required to connect and operate the new overhead lines proposed as part of the Kendoon to Tongland Reinforcement (KTR) Project (*see 1.3 below for more information on the KTR Project*).

1.1.3 SPEN has been planning and consulting with local communities on its proposals for Glenlee as part of the KTR Project for three years, and has considered their feedback when designing the extension for Glenlee substation.

1.1.4 However, the work at Glenlee needs to be completed before construction of the new overhead lines. SPEN therefore needs to make a planning application specifically for the extension to Glenlee substation in advance of and separate from, the consent applications for the wider KTR Project. SPEN is applying to Dumfries and Galloway Council for planning permission for the Glenlee substation extension under the Town and Country Planning (Scotland) Act 1997, as amended.

1.2 The role of SP Energy Networks (SPEN)

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.

1.3 The Kendoon to Tongland Reinforcement (KTR) project

1.3.1 The proposed extension to Glenlee substation forms part of the KTR Project, a major investment which will modernise the ageing 132kV electricity network between Kendoon and Tongland in Dumfries and Galloway.

1.3.2 The overhead lines which run from Kendoon in the north, through Glenlee and down to Tongland substation, connect five of Galloway's hydro-electric power stations to the transmission network. They also link the area to other electricity sources, and users to the north in Ayrshire and east in Dumfries.

1.3.3 However, at more than 80 years old, the lines are at the end of their operational life, and need to be replaced so that SPEN can continue the vital job of supplying electricity for generations to come.

1.3.4 SPEN is proposing to build a new double-circuit line from Polquhanity (north of Kendoon) to Glenlee and from Glenlee to Tongland, a single-circuit connection between Kendoon and Carsfad power stations, and another single-circuit connection between Earlstoun and Glenlee. Once the new lines are operational, SPEN will remove the existing lines.

1.3.5 As stated above, SPEN has been consulting on the KTR Project for three years, and during this period has considered feedback from local people, statutory consultees and interested parties when developing its plans, alongside engineering design, environmental survey information and landowner discussions.

1.3.6 The third and final round of consultation on the KTR Project, which ended on January 26, 2018, focused on the detailed route alignment, including potential locations for steel towers, wood poles, construction accesses and working areas. SPEN aims to submit applications for consent of the overhead lines, under Section 37 of the Electricity Act 1989, to the Scottish Ministers in quarter four of 2019.

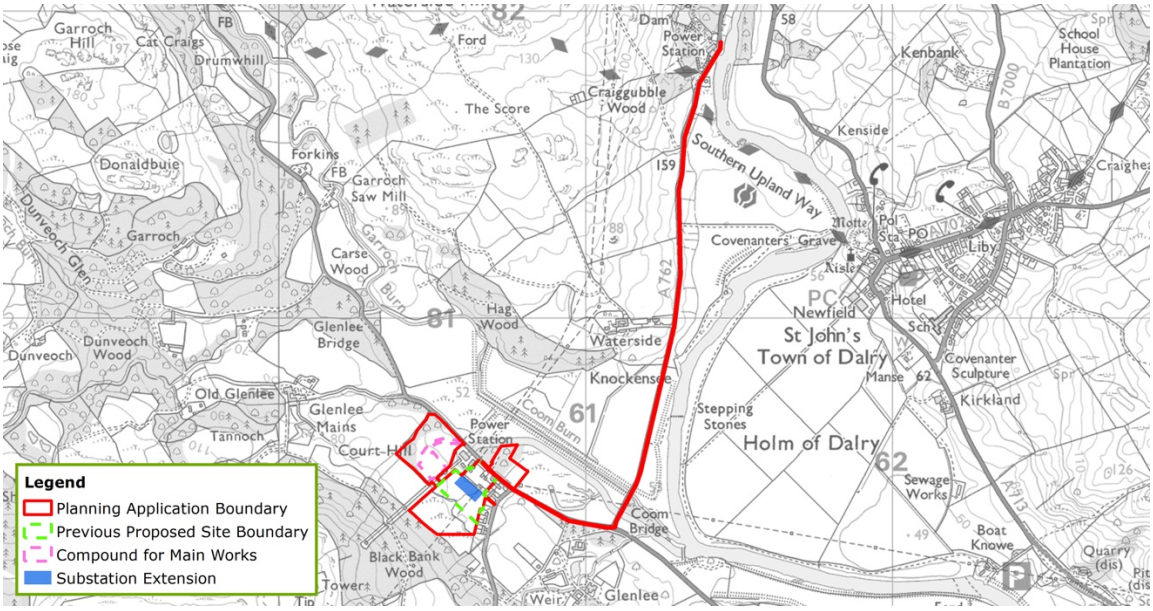
2. Glenlee substation proposals

2.1 Overview

2.1.1 SPEN's proposals (see Figure below) include:

- The substation extension;
- Road improvements on the A762 and the unclassified road leading to Glenlee hydro power station (U2S);
- Landscaping; and
- Temporary construction works

Figure 1



2.2 Substation extension

2.2.1 This will include a new 3.0m steel palisade security fence around the perimeter, new electrical switchgear and plant to connect the proposed new KTR Project overhead lines, and drainage works to divert the existing watercourse which is located within the planning application site into a new section of culvert underneath the substation extension.

2.3 Road improvements

2.3.1 Construction traffic will use the A713 and then the A762 before turning west at Coom Bridge on to the U2S (the existing unclassified access road to Glenlee village, substation and hydro power station).

2.3.2 SPEN proposes to create temporary passing places on the A762 and the unclassified road leading to Glenlee to ensure the safety of all road users during the construction works. The proposals for these are included in the planning application as part of a draft construction traffic management plan (CTMP). Vehicle movements will be managed using the final CTMP (to be agreed with Dumfries and Galloway Council roads and planning departments) during the works.

2.4 Landscaping

2.4.1 SPEN plans to use the rising landform to the south west of the proposed extension to limit visibility of the site from the surrounding area, including nearby residential properties. Glenlee hydro power station and the existing substation will limit visibility of the proposed extension from the wider Glenkens Valley.

2.4.2 Given the size and scale of the substation proposals it is not possible to fully screen the site in all views. However, it is planned to plant native shrubs and trees to the south and west of the proposed extension to soften the appearance of the perimeter of the site and help the development blend in to the surrounding landscape more effectively.

2.4.3 The types and heights of trees and shrubs will be informed by local planning policy and guidance and the need to maintain safety clearances from the proposed and existing steel towers and overhead lines, taking into consideration the views expressed by local residents. SPEN submitted draft landscape proposals with the planning application, and final details will be agreed through a landscape mitigation plan which will be submitted to Dumfries and Galloway Council for approval.

2.5 Temporary works

2.5.1 Temporary works proposed as part of the planning application include:

- A temporary construction compound for initial enabling works (including road improvements and formation of the main construction works compound), on the site of the existing hydro power station overflow car park, north-east of the substation on the opposite side of the public road (U2S)
- A second temporary compound for the main construction works, west of the existing substation and behind the power station (an area used for previous construction works)
- A temporary vehicle holding area up-slope from the proposed substation extension
- Temporary drainage measures known as Sustainable Drainage Systems (SuDs) to prevent the pollution of watercourses during construction

2.5.2 All temporary works areas (compounds, vehicle holding area and soil storage) will be reinstated to their former condition following the completion of construction work.

3. Pre Application Consultation

3.1 Legislation and guidance

3.1.1 SPEN is applying to Dumfries and Galloway Council for planning permission for the Glenlee substation extension under the Town and Country Planning (Scotland) Act 1997, as amended.

3.1.2 Because Glenlee substation operates at 132kV, the proposed extension is classified as a national development in terms of the Scottish Government's National Planning Framework 3. This means that an applicant must carry out pre-application consultation and submit both a report on Pre-Application Consultation (PAC) and an Access and Design statement with the application.

3.1.3 As explained in paragraph 1.3, SPEN has been planning and consulting on proposals for Glenlee substation as part of the wider KTR Project for three years. However, because of the need to submit a separate planning application for the work at Glenlee, SPEN carried out two rounds of public consultation specific to the Glenlee proposals in 2018 and 2019. Feedback from that consultation has helped to inform SPEN's final proposals, and is summarised in this report, along with responses to the comments raised.

3.2 SPEN's statutory and licence responsibilities

3.2.1 As a transmission license holder for central and southern Scotland, SPEN is required under Section 9(2) of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

3.2.2 In addition, as holder of a transmission licence, SPEN has a duty under section 38 of Schedule 9 of the Electricity Act 1989, to have regard to the desirability of the preservation of amenity, the natural environment, cultural heritage, landscape and visual quality. SPEN also considers the effect of work on communities when putting forward proposals for new electricity lines and other transmission development.

3.2.3 As a result of the above, SPEN is required to identify electrical connections that meet the technical requirements of the electricity system, which are economically viable, and cause, on balance, the least disturbance to the environment and the people who live, work and enjoy recreation within it.

3.3 SPEN's commitment to engagement

3.3.1 Stakeholder and public involvement is an important component of the Scottish planning 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.

3.3.2 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 a project's development, and continues into construction once consent has been granted.

3.3.3 Its approach to stakeholder engagement for major electricity infrastructure projects is outlined in Chapter 5 of the document *Major Infrastructure Projects: Approach to Routeing and Environmental Impact Assessment* (available to download from http://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.

3.4 Consultation strategy and approach

3.4.1 As noted above, SPEN had already consulted on initial substation proposals as part of the wider KTR Project (see *KTR Project: Routeing and Consultation Document October 2016*). However, because the Glenlee substation extension proposals are subject to a separate planning application, SPEN consulted on them specifically to ensure local people were aware there would be a separate planning application related to Glenlee and therefore had the opportunity to comment on these proposals and to help shape the final plans.

3.4.2 SPEN decided to carry out a full Environmental Impact Assessment (EIA) of the proposals, even though this is not a statutory requirement. The EIA includes potential construction impacts, so the 'red line' boundary on the original proposals was extended to include temporary as well as permanent works.

3.4.3 SPEN held a second round of consultation in 2019 to give people a further opportunity to give their views on both the permanent and temporary works proposed within the extended boundary.

3.4.4 The strategy for consultation was based on the statutory requirements and government guidance as described previously. It was designed to ensure that stakeholders:

- Had access to project information and understood its development;
- Could put forward their own views and be confident that issues raised would be considered;
- Played an active role in developing and influencing SPEN's proposals; and
- Received timely responses and were informed about progress and outcomes.

3.4.5 Dumfries and Galloway Council was consulted on the Glenlee consultation strategy as part of the formal Proposal of Application Notice (PAN). This submission set out a description of the development in general terms, including maps to identify the site, and set out SPEN's proposals for undertaking pre-application consultation for the substation development.

3.4.6 SPEN used a range of communication channels to publicise and promote the consultations, which are detailed in the following sections of this document.

3.4.7 Respondents were also able to give feedback in different ways, depending on their own preference:

- Email: dgsr@communityrelations.co.uk
- Freepost: FREEPOST SPEN DGSR
- Freephone: 0800 157 7353
- Face-to-face or in writing at public consultation exhibitions
- Statutory consultees and directly-affected landowners and residents were also able to give their views direct to the project team through personal meetings and established channels.

3.4.8 Each respondent was sent a standard acknowledgement, and the response was assigned a unique identification number and logged on a central database. Respondents who indicated they were directly affected by the proposal, or who raised a site-specific issue, received a follow-up contact from the project team.

4. First round of public consultation (2018)

4.1 Consultation activities

4.1.1 The first round of consultation ran from Monday 12 March 2018 to Friday 06 April 2018, and sought people's views on the proposed Glenlee substation extension, road improvements and landscaping proposals.

4.1.2 Approximately two weeks before the start of consultation, a **project leaflet** explaining the proposals and the consultation process was mailed to all 228 postal addresses within 2km of the site. Because the 2km radius did not include all of St John's Town of Dalry, an additional 90 addresses in the Midtown area were also included in the mailing to avoid the potential exclusion of one part of the community.

4.1.3 Email notifications were also sent to:

- statutory consultees;
- non-statutory consultees;
- members of the KTR Project Statutory Stakeholder Liaison Group;
- local interest groups (including Dumgal Against Pylons and Galloway Without Pylons); and
- respondents to previous KTR consultations who had registered for updates.

4.1.4 The leaflet was the principal form of direct communication with local people and explained the proposed substation extension, landscaping and road improvements, including a site map and photomontage, along with details of a public exhibition about the plans, and how people could give their views during the public consultation. The leaflet was full-colour A3, tri-folded and mailed in a clearly marked and branded envelope a full week before the start of the consultation. A copy of the leaflet can be found in **Appendix A**.

4.1.5 To promote the public consultation and the drop-in exhibition, SPEN placed quarter-page **newspaper advertisements** in the Galloway News and Dumfries & Galloway Standard in the week before the exhibition and start of consultation. These publications were selected as they are the primary local newspapers for the Glenlee area. See **Appendix A** for copies of the advertisements

4.1.6 The project leaflet, plans, information about the consultation period and public exhibition, and frequently asked questions, were made available on the KTR **project website** www.spendgsr.co.uk.

4.1.7 Using the KTR Project website had the added benefit of allowing SPEN to explain the wider context of the Glenlee proposals, and providing website visitors with access to KTR Project documents if they wished to view them. The website was already familiar to many local people who had taken part in previous KTR Project consultations.

4.1.8 A **public consultation exhibition** was held at the CatStrand Arts and Visitor Centre in New Galloway on Tuesday 13 March 2018, between 4pm and 8pm. The venue was selected because of its accessibility and location, and had been used successfully for a similar event during the third round of consultation on the KTR Project.

4.1.9 At the exhibition, people were able to drop in without appointment to view SPEN's proposals for Glenlee substation and to talk to the project team. Materials included pull-up exhibition banners, large-scale A0 maps, photomontages and a computer model with a 3D visualisation showing how the substation extension might look in the landscape. Information about the KTR Project was also available, along with information from the Energy Networks Association about electric and magnetic fields, and general information about local power supplies and networks. Visuals of the exhibition banners are contained in **Appendix A**.

4.1.10 A total of 33 people visited the exhibition. The majority of attendees either lived or worked in or near Glenlee, or were involved in the community council, and were interested in the substation proposals. A few people came to ask further questions about the KTR Project, or were in New Galloway and saw the exhibition so came in to find out more.

4.1.11 The project team also made direct contact with landowners and residents directly affected by the proposals and held private one-to-one meetings where appropriate, in addition to one-to-one discussions with those who attended the public exhibition.

4.2 Summary of feedback to first round of consultation

Approach to analysis

4.2.1 SPEN's approach was to analyse response data and report it in a way that enabled the issues raised to be easily understood.

4.2.2 Each individual comment, query or concern within a single piece of feedback was identified and considered by SPEN under the four themes set out in section 4.2.5 of this report. During analysis, additional themes or issues which emerged were categorised which enabled SPEN to understand the broader context of the responses.

4.2.3 A number of responses were received requesting the undergrounding of proposed new overhead lines which would terminate at the substation. The proposed new lines do not form part of the Glenlee substation proposals, and had already been consulted on through the KTR Project. Comments about proposed overhead lines have therefore not been considered here, but have been considered in SPEN's response to the KTR Project consultation.

Feedback received

4.2.4 A total of 36 consultation responses were received. The stakeholders who responded can be classified as follows:

Stakeholder type	Number of responses
Public	28
Statutory	1
Non-statutory	1
Elected representatives	1
Community councils	4
Interest groups	1

4.2.5 The number of comments made on each of the key themes is set out in the table below. The total number of comments is greater than the number of responses listed above, because several responses included comments on more than one issue.

Issue	Number of comments
Substation extension	21
Road improvements	4
Landscaping	2
Other issues including undergrounding	15

4.3 Summary of comments regarding the proposed substation extension

4.3.1 All comments from members of the public relating to the proposed substation extension raised the issue of proximity to neighbouring homes at Glenlee, and asked SPEN to consider building the substation extension on the other side of the Glenlee hydro power station site, to minimise impacts on local residents.

4.3.2 The interest group Dumgal Against Pylons expressed concern about the visual impact on neighbouring properties, but praised the efforts made in scheme design to minimise this impact as far as possible.

4.3.3 Dumgal Against Pylons also expressed disappointment that SPEN was not proposing a full Environmental Impact Assessment (EIA) of the proposals.

SPEN's response

4.3.4 Following the consultation feedback, SPEN investigated potential alternatives to the proposed extension site. In October 2018 the company published an 'Appraisal of Alternative Substation Options' Report (see **Appendix B**), which confirmed the site originally proposed should be taken forward. Since then SPEN has been working closely with neighbouring residents to find ways to minimise disturbance to them and their properties.

4.3.5 SPEN had originally intended to undertake a full environmental appraisal (to EIA standards) in order to assess potential effects arising from the proposal and produce an environmental appraisal report in support of the planning application to Dumfries and Galloway Council. However, following the first round of consultation, SPEN reviewed this approach and elected to undertake a full EIA for the proposal to ensure that potentially significant environmental effects are assessed and appraised in a manner consistent with the wider KTR Project.

4.4 Summary of comments regarding proposed road improvements and construction traffic routes

4.4.1 Respondents who commented on the proposed road improvements and construction traffic routes were primarily concerned about possible inconvenience from large vehicles using the unclassified road to Glenlee. Their concerns focused on:

- The need to keep the road open at all times to allow access for emergency vehicles and vulnerable people;
- Potential impact on roadside car parking and school bus stop; and
- Potential for damage to verges, driveways and roadside drainage.

SPEN's response

4.4.2 Following the consultation feedback, SPEN investigated ways to construction vehicles from 'stacking' on public roads whilst waiting to enter site. The creation of a temporary vehicle holding area within the substation extension construction site was subsequently put forward at the second round of public consultation.

4.4.3 Vehicle movements during the works will be managed using a Construction Traffic Management Plan, to be agreed with Dumfries and Galloway Council before the start of works. This will also include proposals for temporary school bus stops, pedestrian safety and mitigation for the avoidance of damage to roadside verges, driveways and roadside drainage.

4.5 Summary of comments regarding landscaping proposals

4.5.1 In addition to calling for the substation extension to be on the opposite side of the power station, respondents who commented on the landscaping proposals raised concerns about the visual impact from the back gardens of neighbouring residential properties:

- Boundary and palisade fencing would have a negative impact on views, and alternatives should be investigated.

SPEN's response

4.5.2 A new 3.0m steel palisade and security fence around the perimeter of the site is required for safety and security reasons. SPEN has been working closely with neighbouring residents to find ways to minimise disturbance to them and their properties, including possible screening between residential gardens and the new palisade fencing if appropriate.

4.6 Summary of comments highlighting other issues

4.6.1 Respondents made a number of comments about the new overhead lines proposed as part of the KTR Project, which can be summarised as follows:

- New lines into the substation should be put underground to avoid the need for three new large pylons, which would be highly visible from residents' gardens;
- New pylons and overhead lines at Glenlee could exacerbate problems already caused by roosting birds;
- The overhead line project could jeopardise the potential for Galloway to achieve National Park status;
- Potential negative impact on local property values; and
- Could the existing S line route (Dumfries-Tongland) be rebuilt as an alternative to the KTR Project.

SPEN's response

4.6.2 As explained in 4.1.3 above, the proposed new overhead lines do not form part of the Glenlee substation proposals and comments about them have therefore not been considered here, but many of the issues raised have been addressed in SPEN's KTR Project third round of consultation report (published in July 2019[1]). Final positioning of towers will be considered prior to submission of SPEN's application to Ministers for the KTR Project in 2019, and SPEN continues to work closely with local residents to find ways to minimise disturbance to them and their properties. Agreements have now been reached in several cases.

[1] Report available at: https://www.spenergynetworks.co.uk/userfiles/file/20190618_KTR_-_Third_Round_Consultation_-_Summary_of_Feedback_VA_2.pdf

5. Second round of public consultation (2019)

5.1 Consultation activities

5.1.1 The second round of consultation ran from Monday 10 June 2019 to Friday 05 July 2019, and sought people's views on the temporary construction works as well as the proposed Glenlee substation extension, road improvements and landscaping proposals.

5.1.2 SPEN followed the same processes and carried out the same consultation activities as in the first round of consultation, as detailed in section 4.1 of this report. A **project leaflet** explaining the proposals and the consultation was mailed to local residents, a **newspaper advertisement** publicising the consultation was placed in the same local newspapers, and a **public consultation exhibition** was held at the CatStrand Arts & Visitor Centre in New Galloway from 4pm to 8pm on Tuesday 11 June 2019. Copies of the leaflet, newspaper advertisement and exhibition display banners can be viewed in **Appendix C**.

5.1.3 The public consultation exhibition was visited by 36 members of the public. The majority of those who attended were local residents who wanted to talk on an individual basis to members of the project team about the proposals. There were also a small number of attendees who wanted to ask questions about the wider KTR Project.

5.2 Summary of feedback to second round of consultation

5.2.1 SPEN followed the same approach to analysis of consultation responses as detailed in section 4.2 above.

5.2.2 A total of 5 consultation responses were received, of which 4 commented on the overall KTR Project including requests for undergrounding of the proposed overhead lines. As explained in 4.6.2 above, the overhead lines do not form part of the Glenlee consultation so those comments are not addressed here.

5.2.3 The other consultation response referred to the proposed road improvements, and asked SPEN to create passing places on the north side of the U2S unclassified road leading to the substation rather than on the south side, to avoid encroaching on private land and entrances to Glenlee Park.

SPEN's response

5.2.4 Following discussion with the respondent, SPEN can confirm that entrances to Glenlee Park will not be used as passing places, and that original plans have been altered to reflect that road-widening will take place on the north side of the U2S. Clear signage will be placed on the U2S during construction to ensure drivers are aware not to use entrances to Glenlee Park as passing places.

6. Conclusions and next steps

6.1 SPEN has carried out extensive pre-application consultation on its proposals for Glenlee substation, from initial consultation as part of the KTR Project through to two site-specific consultations in 2018 and 2019.

6.2 During the first round of site-specific public consultation in 2018, SPEN was asked to consider siting the Glenlee substation extension on the other side of the hydro power station, to minimise disturbance to local people.

6.3 As a direct result of that feedback, SPEN carried out a thorough appraisal of potential alternative site options for the substation extension, and published its findings in a report in October 2018. The study concluded that the original proposal was the most economic and efficient as well as one which best met SPEN's duties under Schedule 9 of the Electricity Act 1989 as detailed in section 2 above.

6.4 Following completion of the options appraisal, SPEN continued discussions with neighbouring residents both collectively and individually to explore ways of minimising the impact of the works on them and their properties. SPEN has now reached agreements with several residents, and discussions continue with others.

6.5 SPEN had originally intended to undertake a full environmental appraisal (to EIA standards) in order to assess potential effects arising from the proposal and produce an environmental appraisal report in support of the planning application to Dumfries and Galloway Council. However, following the first round of consultation, SPEN reviewed this approach and elected to undertake a full EIA for the proposal to ensure that potentially significant environmental effects are assessed and appraised in a manner consistent with the wider KTR Project.

6.6 SPEN has also taken account of consultation feedback on the proposed road improvements, which have been refined to address concerns raised wherever possible. Revised proposals will be included with our planning application submission to Dumfries and Galloway Council.

6.7 Once the planning application has been received and validated by Dumfries and Galloway Council, the council will publicise and conduct its own formal consultation on the plans. SPEN will publish all supporting documents, such as the Design and Access Statement, EIA Report and PAC report on our website, and will notify by email all stakeholders who have registered with SPEN for project updates. SPEN will also make paper copies available for viewing at the council Planning Offices in Kirkbank House, English Street, Dumfries.

Appendices

Appendix A: Consultation first round (2018) leaflet, newspaper advertisements and exhibition banners

Leaflet

SP ENERGY NETWORKS

Newspaper advertisements

SP ENERGY NETWORKS

Glenlee substation extension

We'd like your views

SP Energy Networks needs to extend Glenlee substation, next to the hydro power station, to accommodate the extra equipment we need to connect and operate the new overhead lines proposed as part of the Kendoon to Tongland Reinforcement (KTR) Project.

Before we submit a planning application, we want to hear what local people think about the proposed extension, road improvements, our landscaping plans and any concerns you may have.

The Glenlee substation extension is part of the KTR project, but we are submitting a separate planning application for the work because it needs to be complete before we build the new overhead lines.

We are consulting on our plans for Glenlee substation from **Monday 12 March to Friday 06 April.**

We are holding a public exhibition on Tuesday 13 March from 4pm to 8pm at the CatStrand Arts & Visitor Centre, High Street, New Galloway, DG7 3RN where you can view our plans and ask questions of our project team.

You can also find out more at our website **www.spendgsr.co.uk**, and you can contact us as follows:
Email: dgsr@communityrelations.co.uk
Post: FREEPOST SPEN DGSR
Freephone: 0800 157 7353

At this stage, your comments are not representations to the planning authority. We intend to submit a planning application to Dumfries and Galloway Council at the end of April, when you will be able to inductions make formal representations directly to the Council.

Exhibition banners

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements and landscaping

Why is this work needed?

We need to extend Glenlee substation to accommodate the extra equipment needed to connect and operate the new overhead lines proposed as part of the Kendoon to Tongland Reinforcement (KTR) Project.

We have been planning and consulting with local communities on our proposals for Glenlee as part of the KTR Project for two years, and we have considered this feedback when designing the extension for Glenlee substation.

However, the work at Glenlee needs to be completed before we build the new overhead lines, so we need to make a planning application specifically for Glenlee substation before, and separate from, our applications for the KTR Project.

We will be applying to Dumfries and Galloway Council for consent for the Glenlee substation extension under the Town and Country Planning (Scotland) Act 1997, as amended.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements and landscaping

How and where will the substation be extended?

The proposed extension covers an area of approximately 90m x 40m, primarily to the south west of SPEN's existing substation site.

The proposed extension site is bounded to the north by the existing hydropower station and substation and local road, to the east by residential housing and a local road, to the south by undeveloped green field land, and to the west by the penstock of the Glenlee Power Station and undeveloped green field land.

The work will include a new 2.74m steel palisade security fence around the perimeter of the substation itself, new electrical switchgear and plant to connect the proposed new KTR overhead lines, and drainage works to divert the existing watercourse that crosses the field into a culvert underneath the substation.

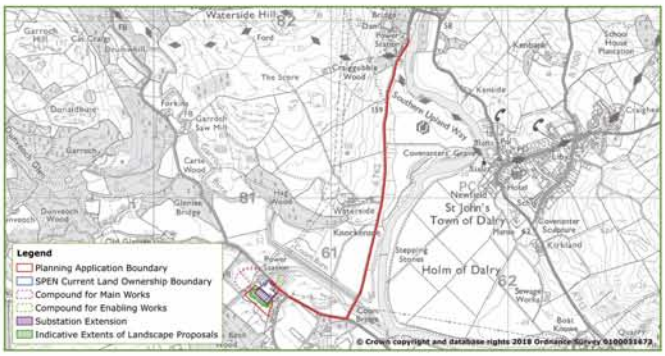
We also plan to create two temporary construction compounds, which will be reinstated to their former condition following our work. These compounds will not be part of our planning application because they are classed as 'permitted development'.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements and landscaping

Road improvements



Construction traffic will use the A713 and then the A762 before turning west at Coom Bridge on to the U2S (the existing unclassified access road to Glenlee village, substation and power station).

We propose to create temporary passing places on the A762 and the unclassified road leading to Glenlee to ensure the safety of all road users during the construction works. The final proposal for these will be included in our planning application.

Vehicle movements will be managed using a Construction Traffic Management Plan during the works.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements and landscaping

Landscaping

How the site looks now

How the site will look after the extension

We plan to use the rising landform to the south west of the proposed extension to limit visibility of the site from the surrounding area, including nearby residential properties. Glenlee power station and the existing substation will limit visibility of the proposed extension from the wider Glenkens Valley.

We plan to plant native shrubs and trees to the south and west of the proposed extension to soften the appearance of the perimeter of the site and help the development blend in to the surrounding landscape more effectively. The types and heights of trees and shrubs will be informed by local planning policy and guidance and the need to maintain safety clearances from the proposed and existing steel towers and overhead lines.

We will submit draft landscaping proposals with the planning application, and final details will be agreed through a landscape mitigation plan.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements and landscaping

We need your views

We want to know what you think about our plans for Glenlee substation, including:

- The proposed substation extension
- Proposed road improvements and construction traffic routes
- Landscaping proposals
- Other issues

How to get in touch

You can give us your views by contacting us as follows:
Email: dgsr@communityrelations.co.uk
Post: FREEPOST SPEN DGSR
Freephone: 0800 157 7353

The deadline for feedback is Friday 06 April, 2018

What happens next?

We will produce a Pre-Application Consultation (PAC) Report detailing the feedback received and how this has been taken into account in the design of the proposals. This report will accompany our planning application to Dumfries and Galloway Council, which we expect to submit in late April 2018.

Subject to receiving planning consent, work will start on site in early 2019 and should finish in autumn 2021. Depending on consents being obtained for the KTR overhead lines, further occasional works to connect the new lines are likely to continue until 2024.

Find out more at **www.spendgsr.co.uk**

Appendix B: 'Appraisal of Alternative Substation Options' report

SP ENERGY NETWORKS

Glenlee Substation

Appraisal of Alternative Substation Sites

October 2018

Glenlee Substation

Appraisal of Alternative Substation Sites

SP Energy Networks
October 2018

Contents

1. Background

1.1. Since 2015 Scottish Power Energy Networks (SPEN) has been consulting communities about its plans to modernise and reinforce the existing 132,000 volt (132kV) electricity network between Kendoon and Tongland, known as the Kendoon to Tongland Reinforcement (KTR) Project.

1.2. As part of these proposals, SPEN is also bringing forward separate plans to extend Glenlee Substation to accommodate the extra equipment we need to connect and operate the new overhead lines proposed as part of the KTR Project.

1.3. Although part of the KTR Project, the Glenlee Substation work has to be completed in advance of the overhead line works in order to meet the limited outage dates available on the transmission system for connecting the proposed overhead lines, so SPEN needs to make a planning application for the substation works to Dumfries and Galloway Council that is separate from our application for the KTR Project.

2. Consultation

2.1. Consultation is a fundamental part of the development of any project, and SPEN has undertaken extensive consultation with local communities on the proposals for Glenlee as part of the KTR Project, with feedback taken into consideration when designing the substation extension.

2.2. SPEN held a separate consultation in March and April 2018 specifically on our plans for Glenlee substation, to ensure that local people understood and had the opportunity to comment on the proposals.

2.3. The Glenlee consultation in March and April 2018 ran separately from the wider KTR third round consultation, which focused on detailed routes for the overhead lines that form the KTR Project and which took place from November 2017 to January 2018. Previous rounds of consultation had taken place in 2016 (on proposed routes for the lines) and in 2015 (on the need for the project).

2.4. SPEN is currently reviewing the feedback received in relation to the KTR third round consultation and intends to publish a separate summary of feedback report detailing our responses in late 2018.

2.5. Any issues relating to overhead lines and routeing raised during the Glenlee substation consultation, such as undergrounding and overhead line entries to substations, will be considered and addressed as part of the KTR summary of feedback report.

3. Glenlee consultation feedback

3.1. During the Glenlee consultation we received feedback from key stakeholders, communities and interested individuals on a range of issues; in particular regarding the siting and design of the substation.

3.2. Following this feedback, SPEN has undertaken a full review and evaluation of potential options before drawing up final proposals for which planning permission will be sought. All potential options were considered against SPEN's statutory obligations as a transmission licence holder under the Electricity Act, which require us to develop the transmission system in an economic and efficient manner as well as considering and mitigating impacts on people and the environment.

3.3. The purpose of this document is to respond specifically to the question of whether the proposed substation extension could be moved to the north west of the Glenlee Power Station building, and to set out the next steps in the process. The intention is that this will inform future discussions with stakeholders and communities in advance of a planning application being made to Dumfries and Galloway Council.

4. SPEN's Statutory and Licence Duties and the role of Ofgem

4.1. As a transmission licence holder for southern Scotland, SPEN is required under Section 9(2) of the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical system of electricity transmission.

4.2. In addition, Schedule 9 of the Electricity Act 1989 imposes a further statutory duty on SPEN to take account of the following factors in formulating proposals for the installation of overhead transmission lines and other transmission works:

4.3. "(a) to have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and,

4.4. (b) to do what it reasonably can to mitigate any effects which the proposals would have on the natural beauty of the countryside or any such flora, fauna, features, sites, buildings or objects."

4.5. In terms of its electricity transmission licence, SPEN is required to develop the transmission system in the most economic and efficient manner possible within the constraints of industry standards, statutory consents, approvals or permissions. Ofgem (the Office of Gas and Electricity Markets) has to approve investment decisions within the transmission system and its role is to protect the electricity consumer from unnecessary or unjustified costs. Ultimately, the financial burden of undertaking works at Glenlee will be placed on electricity consumers throughout Great Britain. As a result, the financial costs of all options for alternative substation sites have to be evaluated against the obligations above, to establish whether they can be justified.

4.6. In considering these issues, SPEN's overall objective for the siting of the substation at Glenlee is to identify a technically feasible and economically viable site which causes, on balance, the least disturbance to the environment and the people who live, work and enjoy recreation within it.

5. Substation Options

5.1. The initial suggestion from the community was to move the substation extension element to the opposite side of the Glenlee Power Station and penstock pipe, retaining the existing substation in the same location adjacent to the properties of Rannoch, Tummel and Carville. This was suggested as a means to reduce potential impact on residents during both the construction and future operation of the substation. However, following initial consideration of this feedback, SPEN decided to develop additional options, including moving the entire substation. On this basis, SPEN identified four potential substation options for Glenlee:

Option 1: Extension of the existing substation site (original option);
Option 2: Retain the existing substation but move the proposed extension to the opposite side of the Glenlee Power Station;
Option 3: Move entire substation (proposed and existing) to the opposite side of the Glenlee Power Station as an air insulated substation (AIS); and
Option 4: Move entire substation (proposed and existing) to the opposite side of the Glenlee Power Station as a gas insulated substation (GIS).

5.2. The following provides a more detailed description of each option which has been considered.

5.3. Option 1

This option would involve extending the existing substation directly adjacent to the south-west. The development footprint would include gantries connecting to the first terminal tower on the proposed realignment of the existing BG Route overhead line route as part of the wider KTR Project. The development footprint for the substation extension is approximately 0.69 hectares (including the access and changes to ground levels). The existing control building would require a minor extension. Option 1 is illustrated in Figure 1.

5.4. Option 2

This option would involve locating the proposed substation extension behind the existing Glenlee Power Station as an entirely new substation site. The development footprint for the substation extension is approximately 1.83 hectares (including the access and changes to ground levels). The layout of Option 2 is illustrated in Figure 2.

5.5. Option 3

This option would involve moving the whole substation (i.e. existing substation plus new extension) as an Air Insulated Substation (with most equipment outdoors, as existing substation). This option would allow the existing site to be demolished. The development footprint for the substation extension is approximately 1.78 hectares (including the access and changes to ground levels). The layout of Option 3 is illustrated in Figure 3.

5.6. Option 4

This option would involve moving the whole substation as a Gas Insulated Substation (with the GIS switchgear contained inside a building). This option would allow the existing site to be demolished. The development footprint for the substation extension is approximately 1.1 hectares (including the access and changes to ground levels). The layout of Option 4 is illustrated in Figure 4.

6. Appraisal of Options

6.1. SPEN has undertaken a full appraisal of each of the four options described in section 5 of this document. In light of SPEN's statutory and licence obligations, each option has been appraised against the following criteria:

Economic

- Overall construction cost of the option taking into account expected civils, plant, equipment and labour costs (based on 2018 estimates)

Technical

- Size of development footprint;
- Feasibility of constructing on the site; and
- Risk to supplies to existing customers during construction and commissioning of the extended/new substation

Environmental

- Landscape and visual amenity;
- Ecology;
- Ornithology;
- Cultural heritage;
- Hydrology;
- Construction noise and vibration and operational noise;
- Peat; and
- Traffic and transport.

6.2. The detailed appraisal of these options is captured in the tables in appendix 1 of this document. Where relevant, commentary is provided on how each alternative option compares with the original option (Option 1).

7. Conclusion

7.1. Following consideration of the technical, economic and environmental factors relating to each of the four options, **SPEN has concluded that the option to be taken forward is Option 1**. This decision has been made on the following basis:

- All options are technically feasible and will achieve the same operational goal of connecting the overhead lines being proposed as part of the KTR Project.
- Options 2, 3 and 4 are not considered to be economic or efficient when evaluated against SPEN's statutory and licence obligations as each of these options is at least double the cost in comparison with Option 1.
- Option 2 is not efficient or coordinated, requiring construction of a new substation extension less than 200m from the existing site and increasing risks to customers fed from Glenlee during construction of the extension.
- Options 3 and 4 are not efficient in that they would involve the demolition of an existing substation site with an expected remaining asset life of 20-30 years. Due to operational issues requiring the existing substation to be retained while the new substation is being constructed, it is not considered feasible to utilise existing plant and equipment on the new substation site.
- Options 2, 3 and 4 extend the presence and influence of transmission electrical infrastructure beyond that of the existing substation and the Glenlee Power Station into an area of currently undeveloped farmland with mature trees on the boundary.
- Options 2, 3 and 4 will likely result in re-alignment of the existing BG overhead line route and proposed Glenlee to Tongland routes with the towers having to pass over the higher ground formed by the north-eastern shoulder of Glenlee Hill to the west, south-west of the penstock. The likely result is that these towers would be visible over a more extensive area, including views from St John's Town of Dalry and locations on the Southern Upland Way, and leading to potentially greater landscape and visual effects when compared with Option 1.
- Due to their elevated nature and topography, options 2, 3 and 4 will result in extensive earthworks to construct the substation platform, leading to a further increase in vehicle movements during the construction period.
- Options 2, 3 and 4 vary in development footprint size being between 1.5 and 2.5 times larger than option 1 and will therefore require a greater amount of materials to construct the substation platform and compound, leading to a further increase in vehicle movements during the construction period.
- Options 2, 3 and 4 (the new sites separate from the existing substation) will create a greater visual impact to the surrounding area in comparison to Option 1.

7.2. It is acknowledged that Option 1 will give rise to greater impacts on residents during construction as a result of construction noise and vibration in comparison with options 2, 3 and 4. These impacts will be limited to during the main earthworks and formation of the substation extension platform.

7.3. In relation to Option 1, the extension site will require a substantial amount of earthworks to enable construction of the substation platform, but will also provide opportunities to screen much of the substation infrastructure in distant and elevated views from the Glenkens Valley, and from the nearby properties of Orrin, Garry, Maree, Navar and Tarbert. The substation infrastructure will be lower than neighbouring properties and their curtilages, with opportunities for further mitigation measures (landscape mitigation planting) around the outer extents of the substation and surrounding earthworks to further reduce its impact on views from nearby properties.

7.4. **Considering the above issues in the context of SPEN's statutory and licence duties and obligations, SPEN considers that Option 1 (an extension to the existing substation site) is the most technically feasible, economic and efficient option which causes, on balance, least disturbance to the environment and people.**

7.5. However, we recognise that Option 1 will cause disturbance to residents and landowners, and we are committed to working with them to explore further opportunities to mitigate the potential effects during the construction and operational phases of the site.

8. Next Steps

8.1. SPEN understands the importance of consultation and that residents, the wider community and key stakeholders will wish to discuss the conclusions of this appraisal process in further detail. Therefore, in advance of a planning application being made, SPEN will hold a further drop-in event at the CatStrand centre in New Galloway where members of the project team will be available to discuss these proposals and explore further mitigation opportunities.

8.2. It is intended to hold this event during autumn 2018 with the planning application to be made to Dumfries and Galloway council during early 2019.

8.3. The planning application will be supported by:

- A full Environmental Impact Assessment Report (EIAR) detailing the environmental assessment of the site; and
- Pre-Application Consultation (PAC) report setting out the feedback received during the pre-application consultation and SPEN's responses to this feedback, including where this has influenced the scope and design of the proposals.

8.4. SPEN will publicise the application on our website and send an update to people who have signed up to receive email from us to let them know it has been submitted. You can sign up for emails by sending a request to dgsr@communityrelations.co.uk.

8.5. Following submission of the planning application, Dumfries and Galloway Council will hold its own statutory consultation which will offer a further opportunity for key stakeholders, residents and the wider community to make their views known and have these taken account of in the decision making process.

Technical, Economic and Environmental Review of Glenlee Substation Alternative Options

Table 1: Technical, Economic and Environmental Review of Glenlee Substation Alternative Options

Criteria	Option 1	Option 2 – Alternative substation extension location	Option 3 – Replacement of entire substation (proposed and existing) with an air insulated substation (AIS)	Option 4 – Replacement of entire substation (proposed and existing) with a gas insulated substation (GIS)
Technical Considerations				
Size of development footprint	The development footprint for the substation extension (including the areas of cut and fill and access track) is approximately 0.69 hectares. No new control building would be required.	The development footprint for this option (including the areas of cut and fill and access track) is approximately 1.83 hectares, including a new control building.	The development footprint for this option (including the areas of cut and fill and access track) is approximately 1.78 hectares, including a new control building. It is noted that this option has a smaller footprint than Option 2. This is due to the fact that a similar amount of 132kV circuit breaker (CB) bays [9-off] are required. Both options also require a new Control Building and access road, and similar civils/ground preparation works and are therefore of a similar size.	The development footprint for this option (including the areas of cut and fill and access track) is approximately 1.1 hectares, including a new GIS Switchgear Control Building.
Feasibility and Risk to Supply to Customers	This option is technically feasible and minimises risks to supplies to existing customers. The existing Glenlee site supplies approximately 18,000 customers in this area. Extending the existing site is the most effective way to manage required outages on the existing system during construction and tie in new connections for Newton Stewart / Glenluce, Earlstoun, Tongland and New Cumnock, thereby reducing risk to these customers. The existing substation was refurbished 20 years ago and is not due to be replaced/refurbished for a further 20-30 years. This option allows the existing site plant and equipment to be maintained in use.	This option is technically feasible. However, it presents a significant risk in terms of how construction outages are managed and staged to tie in new connections for Newton Stewart / Glenluce, Earlstoun, Tongland and New Cumnock. This option would also require 2 additional overhead line connections to the existing Glenlee site over the penstock pipe. The existing substation was refurbished 20 years ago and is not due to be replaced/refurbished for a further 20-30 years. This option allows the existing site plant and equipment to be maintained in use, in addition to the new substation extension site. This would require the construction of a new substation extension site less than 200m from the existing site.	This option is technically feasible. However, it presents a lesser risk compared to option 2 in terms of how construction outages are managed and staged to tie in new connections for Newton Stewart / Glenluce, Earlstoun, Tongland and New Cumnock. This option would involve 2 new overhead lines entering the new substation site from the south (from the top of the hill). This option would involve the demolition of the existing substation site which still has a 20-30 year operational lifetime. It is not economically efficient or operationally acceptable to reuse existing plant and switchgear and associated gantries on the construction of an alternative site while trying to maintain and operate the existing substation site.	This option is technically feasible. However it presents a lesser risk compared to Option 2 in terms of how construction outages are managed and staged to tie in new connections for Newton Stewart / Glenluce, Earlstoun, Tongland and New Cumnock. This option would involve 2 new overhead lines entering the new substation site from the south (from the top of the hill). This option would involve the demolition of the existing substation site which still has a 20-30 year operational life. As this proposal is a GIS, much of the existing plant could not be re-utilised. Generally, it is not economically efficient or operationally acceptable to reuse existing plant and switchgear and associated gantries on the construction of an alternative site while trying to maintain and operate the existing substation site.
Economic Considerations				
Overall construction costs	**Overall cost of construction work to extend the existing site is £12.0m** (based on 2018 estimate of plant and civils costs). This is the most efficient and coordinated option.	**Overall cost of Option 2 is £24.7m** (based on 2018 estimate of plant and civils costs). The additional costs are attributed to the substantial site footprint required to accommodate the new AIS switchgear and increased civils costs due to difference in slope gradients across the site. As this is a new substation site there would also be a requirement for a new control building to manage the substation during operations and also a requirement for a new access road. Additional costs would be incurred in re-routing Tongland 1 / 2 and NS/Glenluce 1 / 2 OHL circuits into the new substation site, and also for 2 new overhead line connections between the new and existing Glenlee substation sites.	**Overall cost of Option 3 is £26.7m** (based on 2018 estimate of plant and civils costs). The additional costs are attributed to the substantial site footprint required to accommodate the new AIS switchgear and also increased civils costs due to difference in slope gradients across the site. As this is a new substation site there would also be a requirement for a new control building to manage the substation during operations and also a requirement for a new access road. Additional costs would be incurred in re-routing Tongland 1 / 2 and NS/Glenluce 1 / 2 OHL circuits into the new substation site, and also for additional 11kV and 132kV cabling works and a new 132kV/11kV Transformer. The costs also include the demolition of the existing substation site.	**Overall cost of Option 4 is £28.5m** (based on 2018 estimate of plant and civils costs). The additional costs are attributed to the large site footprint required to accommodate the new GIS switchgear building, OHL Terminal Towers, 132/11kV Transformer and also increased civils costs due to difference in slope gradients across site. There would also be a requirement for a new access road. Gas insulated switchgear is more expensive to purchase and install than AIS, however it can be contained within a building requiring a smaller footprint so estimated civils costs are reduced. Additional costs would be incurred in re-routing Tongland 1 / 2 and NS/Glenluce 1 / 2 OHL circuits into the new substation site, and also for additional 11kV and 132kV cabling works and a new 132kV/11kV Transformer. The costs also include the demolition of the existing substation site.
Environmental				
Ecology	The majority of the land upon which this option would be located is improved grassland which is common and widespread and generally low value for wildlife. No notable flora species were noted during the Phase 1 Habitat Survey. Some trees with bat roost potential will require to be removed for the construction and operation of this option. This option will require a diversion to an existing watercourse. Electrofishing surveys confirmed that no fish or crayfish are present.	The majority of the land upon which these options would be located is improved grassland which is common and widespread and generally low value for wildlife. No notable flora species were noted during the Phase 1 Habitat Survey. The only ecological features of note in the area of the development relate to bats, as these options extends to an area of broadleaved woodland and there is therefore potential for effects on protected species, including bats. There would be no need for a diversion to the watercourse that flows under the existing substation.		
Ornithology	The site and surrounding area are overall considered to be of low value for habitats and protected species. No ornithological species of note were identified during surveys of these areas.			
Cultural Heritage	The development footprint for the substation extension, including the proposed infrastructure associated with this option (landing gantry 2 and the working area for R-BG-102), falls within an area where metal working debris (slag) has previously been recorded as having been exposed and washed out of the bed and banks of a small stream in the 1970s. This information suggests the possible presence of a metal working site in this field. Mitigation in the form of test-pitting or small trial trenching within the development footprint would determine	The proposed infrastructure, (new intermediate trident pole line between the existing substation and the proposed substation) falls within an area where metal working debris (slag) has previously been recorded as having been exposed and washed out of the bed and banks of a small stream in the 1970s. This information suggests the possible presence of a metal working site in this field. Mitigation in the form of test-pitting or small trial trenching within the development footprint would determine whether a metal working site is preserved and would also be likely to recover some dating evidence for the site. The Glenlee Power Station and Glenlee Power Station Bridge are Category B Listed Buildings. However, it is considered that there will	There are no previously recorded heritage constraints within the footprint of options 3 and 4. The Glenlee Power Station and Glenlee Power Station Bridge are Category B Listed Buildings. However, it is considered that there will be no adverse effect on the setting of the listed buildings identified given that these are an integral part of the existing substation. The alignment of the proposed Glenlee-Tongland OHL and the realignment of the existing Glenlee-Glenluce (BG Route) connections would likely have to pass over the higher ground formed by the north-eastern shoulder of Glenlee Hill to the west southwest of the penstock before deviating towards the existing alignment of the Glenluce (BG route at c. tower 098-099). This is likely to result in skylining of the towers. As a consequence, the new OHL alignments would potentially be more visible than the current alignment when seen from Glenlee Park Non-Inventory Designed Landscape (NIDL) and its associated Listed Buildings (including Category B Listed Glenlee Park Country House (LB9737)) which at its closest lies c.60m to the southeast of the proposed development. The more visible OHL alignments would change the wider landscape surroundings and may have an effect on the setting of the Glenlee Park NIDL and its associated listed buildings.	

Criteria	Option 1	Option 2 – Alternative substation extension location	Option 3 – Replacement of entire substation (proposed and existing) with an air insulated substation (AIS)	Option 4 – Replacement of entire substation (proposed and existing) with a gas insulated substation (GIS)
	whether a metal working site is preserved and would also be likely to recover some dating evidence for the site. The Glenlee Power Station and Glenlee Power Station Bridge are Category B Listed Buildings. However, it is considered that there will be no adverse effect on the setting of the listed buildings given that these are an integral part of the existing substation. To mitigate the visual impact of the proposals on nearby residential properties to the south (see below), the substation extension will be situated at a lower elevation than the nearby properties to facilitate opportunities for landscape mitigation planting around the outer extents of the substation. A consequence of the landscape mitigation planting is that the substation and the proposed R-BG-102 tower would be mostly screened from view from within Glenlee Park Non-Inventory Designed Landscape (NIDL) and from associated listed buildings, including Category B Listed Glenlee Park Country House (LB9737), to the southeast of the proposed development. As a result it is likely that any impact on the setting of Glenlee Park NIDL and its associated listed buildings from the proposals would be minimal.	be no adverse effect on the setting of the listed buildings given that these are an integral part of the existing substation. The alignment of the proposed Glenlee-Tongland OHL and the realignment of the existing Glenlee-Glenluce (BG Route) connections would likely have to pass over the higher ground formed by the north-eastern shoulder of Glenlee Hill to the west southwest of the penstock before deviating towards the existing alignment of the Glenluce (BG route at c. tower 098-099). This is likely to result in skylining of the towers. As a consequence, the new OHL alignments would potentially be more visible than the current alignment when seen from Glenlee Park Non-Inventory Designed Landscape (NIDL) and its associated Listed Buildings (including Category B Listed Glenlee Park Country House (LB9737)) which at its closest lies c.60m to the southeast of the proposed development. The more visible OHL alignments would change the wider landscape surroundings and may have an effect on the setting of the Glenlee Park NIDL and its associated listed buildings.		
Noise	Construction activities are predicted to result in noise levels above recommended thresholds at some of the adjacent properties during certain periods of the construction programme. To mitigate this noise, a 2 metre barrier is proposed to be installed between the site and the residential properties which would provide acoustic screening, bringing all activities within required thresholds at the receiver locations. Noise levels from vehicle movements adjacent to the nearest noises sensitive properties would also be within the set threshold. The extension to the substation does not require any new transformers therefore there will be no change in background noise once operational.	Given the increased distance from the closest residential properties, it is likely that this option would result in slightly lower noise effects during construction than Option 1; therefore installation of noise screens would not be required. Noise levels from vehicle movements at the nearest noise sensitive properties would be within the set threshold. Under this option, there would not be a transformer located within the new substation site (transformer would remain at the existing substation site).	Given the increased distance from the closest residential properties, it is likely that this option would result in slightly lower noise effects during construction than Option 1, therefore removing the requirement for the installation of noise screens. Noise levels from vehicle movements at the nearest noises sensitive properties would be within the set threshold. In regards to operational noise, the existing transformer would not be required and will be taken out of service. A new AIS transformer would be installed at the site therefore moving all operational plant further away from residential properties. This would potentially decrease operational noise when compared to the current noise baseline.	Given the increased distance from the closest residential properties, it is likely that this option would result in slightly lower noise effects during construction than Option 1, therefore removing the requirement for the installation of noise screens. Noise levels from vehicle movements at the nearest noises sensitive properties would be within the set threshold. In regards to operational noise, under this option, a new GIS transformer would be required. As with Option 3, this takes the substation further away from residential properties so there is potential for this option to decrease operational noise when compared to the current noise baseline.
Landscape and Visual Amenity	**Substation Siting Implications:** The site is located wholly within Galloway Hills Regional Scenic Area (RSA) and within Upper Dale (Valley) LCT (Upper Glenkens) which is judged to have a Medium capacity to accommodate both substation and overhead transmission infrastructure. This option will extend the existing Glenlee substation footprint to the south, approximately doubling the overall footprint, but will contain the presence of transmission infrastructure one side of the Glenlee Power Station penstock and not substantially increase its influence over a much wider area. The extension site will require substantial cut and fill to facilitate construction of the substation platform, however as a consequence opportunities will exist to effectively screen much of the substation infrastructure in distant and elevated views from the Glenkens Valley, and from the nearby properties of Orrin, Garry, Maree, Navar and Tarbert. As the substation infrastructure will be situated at a lower elevation to the properties and their curtilages, with opportunities for further mitigation measures (landscape mitigation planting) to be implemented around the outer extents of the substation and surrounding earthworks to further reduce its influence in views from nearby properties.	**Substation Siting Implications:** The site is located wholly within Galloway Hills Regional Scenic Area (RSA) and wholly within Upper Dale (Valley) LCT (Upper Glenkens) which is judged to have a Medium capacity to accommodate both substation and overhead transmission infrastructure. This option extends the presence and influence of electrical infrastructure beyond that of the existing substation and the Glenlee Power Station into an area of currently undeveloped farmland with mature boundary and individual field trees. The substation extension footprint is c.5-6 times larger than that of Option 1, and will require a substantial extent of cut and fill and loss of existing mature trees to the north of the penstock. The location occupies a more elevated position to the north of the Glenlee Power Station and penstock, and as a consequence will be more widely visible and perceptible from elevated locations such as Mulloch Hill and Waterside Hill on the Southern Upland Way (SUW), and other elevated locations in the settlement of St. John's Town of Dalry. As a consequence, the site and its immediate surroundings offer less opportunity for the implementation of landscape mitigation planting to assimilate the substation into the immediate and wider landscape, and screen the substation in longer distance views. This option avoids the presence of additional infrastructure in close proximity to the residential properties of Orrin, Garry, Maree, Navar and Tarbert, with views of the proposed new substation infrastructure experienced at a greater distance of c.200-250m, beyond the penstock and partial screened/filtered by existing mature deciduous trees south-east of the penstock.	**Substation Siting Implications:** The site located is wholly within Galloway Hills Regional Scenic Area (RSA) and wholly within Upper Dale (Valley) LCT (Upper Glenkens) which is judged to have a Medium capacity to accommodate both substation and overhead transmission infrastructure. This option extends the presence and influence of transmission infrastructure beyond that of the existing substation and the Glenlee Power Station into an area of currently undeveloped farmland with mature boundary and individual field trees. Substation extension footprint is c.5-6 times larger than that of the proposed Planning Application Option, and will require a substantial extent of cut and fill and loss of existing mature trees to the north of the penstock. The alternative location occupies a more elevated position to the north of the Glenlee Power Station and penstock, and as a consequence will be more widely visible and perceptible from elevated locations such as Mulloch Hill and Waterside Hill on the Southern Upland Way (SUW), and other elevated locations in the settlement of St. John's Town of Dalry. As a consequence, the site and its immediate surroundings offer less opportunity for the implementation of landscape mitigation planting to assimilate the substation into the immediate and wider landscape, and screen the substation in longer distance views. This option removes the presence of additional infrastructure in close proximity to the residential properties of Orrin, Garry, Maree, Navar and Tarbert, with views of the proposed substation infrastructure experienced at a greater distance of c.200-250m, beyond the penstock and partial screened/filtered by existing mature deciduous trees south-east of the penstock.	**Substation Siting Implications:** The site is located wholly within Galloway Hills Regional Scenic Area (RSA) and wholly within Upper Dale (Valley) LCT (Upper Glenkens) which is judged to have a Medium capacity to accommodate both substation and overhead transmission infrastructure. This option extends the presence and influence of transmission infrastructure beyond that of the existing substation and the Glenlee Power Station into an area of currently undeveloped farmland with mature boundary and individual field trees. Substation extension footprint is c.3-4 times larger than that of the proposed Planning Application Option, and will require a substantial extent of cut and fill and loss of existing mature trees to the north of the penstock. The reduced footprint of this option offers greater opportunity for the implementation of landscape mitigation planting to assimilate the substation into the immediate and wider landscape, and screen the substation in longer distance views. Given the increased distance from the closest residential properties of c.200-250m, it is likely that this option would not result in significant effects on residential visual amenity during either construction or operation. The removal of the Glenlee-Glenluce (BG Route) terminal tower within the existing Glenlee substation will remove this infrastructure from existing views from the rear of the properties of Tummel, Rannoch and Carville, However, whilst all unnecessary transmission infrastructure, such as switchgear, would be removed from the existing substation compound, the current transformer, though not operational, would remain in situ for potential future operational requirements. The site would therefore remain enclosed by steel palisade security fence.

Criteria	Option 1	Option 2 – Alternative substation extension location	Option 3 – Replacement of entire substation (proposed and existing) with an air insulated substation (AIS)	Option 4 – Replacement of entire substation (proposed and existing) with a gas insulated substation (GIS)
	Mature deciduous field trees will be lost to the south-east of the penstock to facilitate the substation extension. The removal of trees/hedgerow vegetation to the rear of the properties of Carville, Tummel and Rannoch which currently effectively screen views of much of the existing substation, will lead to potential significant effects on residential visual amenity during construction, and potentially extending into the operational phase as unimpeded views of the existing substation are introduced. However, opportunities may exist to implement mitigation measures to screen immediate views from these properties (fences and replacement hedgerow planting) of both the existing and proposed substation infrastructure. This would be agreed on an individual basis with affected residents.	Given the increased distance from the closest residential properties, it is likely that this option would not result in significant effects on residential visual amenity during either construction or operation. The removal of the Glenlee-Glenluce (BG Route) terminal tower within the existing Glenlee substation will remove this infrastructure from existing views from the rear of the properties of Tummel, Rannoch and Carville. Connections between the existing substation and the alternative substation extension site would be via trident wood pole OHL connections, crossing the penstock before terminating on new structures to the south-west of the existing Glenlee substation. These are unlikely to appear as prominently in principal views from the rear of residential properties south-west and south of the existing substation, in contrast to the proposed terminal tower proposed in Option 1.	Given the increased distance from the closest residential properties, it is likely that this option would not result in significant effects on residential visual amenity during either construction or operation. The removal of the Glenlee-Glenluce (BG Route) terminal tower within the existing Glenlee substation will remove this infrastructure from existing views from the rear of the properties of Tummel, Rannoch and Carville. However, whilst all unnecessary transmission infrastructure, such as switchgear, would be removed from the existing substation compound, the current transformer, though not operational, would remain in situ for potential future operational requirements. The site would therefore remain enclosed by steel palisade security fence.	
	Routeing Implications: The proposed alignments of the Kendoon-Glenlee and Earlstoun-Glenlee connections from the north-east, and the proposed Glenlee-Tongland and realigned Glenlee-Glenluce (BG Route) connections to the south-west have been identified as the most suitable overhead line connections to the existing Glenlee substation and proposed substation extension site. This contains the presence of transmission infrastructure within an area already occupied by existing infrastructure, thus avoiding the potential for extending landscape and visual effects over a wider area. The terminal tower for the realigned Glenlee-Glenluce (BG Route) connection will be visible in views from the rear of the residential properties of Orrin and Garry, and to a lesser extent from the rear of the properties of Maree, Navar and Tarbert, resulting in potential significant effects on views from the rear of these properties.	**Routeing Implications:** The alignment of the proposed Glenlee-Tongland and realignment of the existing Glenlee-Glenluce (BG Route) connections would likely have to cross the penstock to meet the existing and preferred alignments or pass over the higher ground formed by the north-eastern shoulder of Glenlee Hill to the west, south-west of the penstock, before deviating towards the existing alignment of Glenlee-Glenluce (BG Route at c. tower 098-099). This is likely to result in skylining of the towers which would be visible over a greater area, including views from St John's Town of Dalry and locations on the SUW. In relation to the Kendoon-Glenlee connections approaching this alternative site from the north-east, the necessary change in alignment will likely result in an increased loss of woodland at Hag Wood to the south-west of Waterside where the existing proposed alignment utilises the existing wayleave as far as is practical. This alignment is also likely to require the introduction of two additional angle towers (Type D60 L7 Spec) into the existing proposed alignment of the Kendoon to Glenlee connection once south-west of the woodland. The Earlstoun-Glenlee connection would remain as proposed, and connect to the existing Glenlee substation site from its terminal position via underground cable.		
Hydrology	The vast majority of the site lies above the 1 in 200-year, 1 in 500-year, 1 in 1000-year and 1 in 200-year plus climate change peak water levels for the larger watercourses downgradient (e.g. Water of Ken, Coom Burn, and the Tailrace) and it is at low risk of flooding from these watercourses, and from Dickson's Strand and the burn located to the north-west of the site, south of Glenlee Mains. However, this option will require the diversion of the unnamed watercourse and extension/re-alignment of the existing culvert which runs under the existing Glenlee Substation. The watercourse was culverted through the site of the existing Glenlee substation when the Glenlee Power Station was constructed. Modelling work has established that the existing culvert is undersized to convey the 1 in 200-year flow. Due to space restrictions within the site and local topography (which is relatively steep to the south of the existing substation but predominantly flat in the lower parts of the existing substation and between the substation and the tailrace), modelling work has shown that it is not possible to develop a culvert that can convey the 1 in 200-year flow. As such, it is proposed that flows in excess of the capacity of the network will be conveyed along the proposed substation road network within the site, and intercepted by a 'road verge drain' with a view to minimising the risk of flooding within the site and downstream of the culvert.	Option 2 is located adjacent to the unnamed watercourse which flows in an easterly direction along the southern boundary of the site, before passing under the penstock. This option would require to be cut into the ground next to the watercourse, so the channel would have to be engineered to ensure flows can't enter the site; this would require a licence under the CAR regulations. In addition, infrastructure within the site may have to be raised a suitable freeboard (factor of safety) above flood levels of the watercourse. A detailed flood risk assessment has not been undertaken for this option; however, it appears to be located outside of the 1000 year floodplain of the larger watercourses downgradient (e.g. Water of Ken, Coom Burn, and the Tailrace). This option would not require realignment and culverting of the unnamed watercourse required for Option 1. However, it is possible that this option may still be at risk of flooding from this watercourse and appropriate mitigation measures would be required (e.g. engineering the channel upgradient of the site) and providing a suitable flow-path if the culvert/channel under the penstock became blocked.	Option 3 is located adjacent to the unnamed watercourse which flows in an easterly direction along the southern boundary of the site, before passing under the penstock. This option would require to be cut into the ground next to the watercourse, so the channel would have to be engineered to ensure flows can't enter the site; this would require a licence under the CAR regulations. In addition, infrastructure within the site may have to be raised a suitable freeboard above flood levels of the watercourse. A detailed flood risk assessment has not been undertaken however this option appears to be located outside of the 1000 year floodplain of the larger watercourses downgradient (e.g. Water of Ken, Coom Burn, and the Tailrace). This option would not require realignment and culverting of the unnamed watercourse required for Option 1. However, it is possible that this option may still be at risk of flooding from this watercourse and appropriate mitigation measures would be required (e.g. engineering the channel upgradient of the site) and providing a suitable flow-path if the culvert/channel under the penstock became blocked.	Option 4 is located approximately 60m north of the unnamed watercourse which flows in an easterly direction, before passing under the penstock. This option would require to be cut into the ground, however given the distance from the watercourse, engineering of the watercourse is not likely to be required. However, flood risk from the watercourse would need to be assessed and flood flow paths within the site provided if taken forward. In addition, infrastructure within the site may have to be raised a suitable freeboard above flood levels of the watercourse. A detailed flood risk assessment has not been undertaken however this option appears to be located outside of the 1000 year floodplain of the larger watercourses downgradient (e.g. Water of Ken, Coom Burn, and the Tailrace). This option would not require realignment and culverting of the unnamed watercourse required for the preferred option. However, it is possible that this option may still be at risk of flooding from this watercourse and appropriate mitigation measures may be required and providing a suitable flow-path if the culvert/channel under the penstock became blocked.

Criteria	Option 1	Option 2 – Alternative substation extension location	Option 3 – Replacement of entire substation (proposed and existing) with an air insulated substation (AIS)	Option 4 – Replacement of entire substation (proposed and existing) with a gas insulated substation (GIS)
	A maintenance regime will be put in place to maintain the culvert including the inlet and the proposed channel to prevent blockages, thereby minimising the potential for future flood risk.			
Peat	Detailed peat probing has not been undertaken in this location. However, a review of the drift geology mapping and the SHN carbon and peatland map 2016 indicates that no peat is present in these areas and the habitats present do not suggest the presence of peat.			
Access, Traffic and Transport	Construction of this option will result in a peak of HGV movements on the following sections of road during the main earth works phase: • A713 north of A762: 18 daily HGV movements over a 3 month duration; • A713 south of A762: 18 daily HGV over a 3 month duration; • A762 between A713 and U2s: 36 daily HGV movements over a 3 month duration; • U2s: 36 daily HGV movements over a 3 month duration. Reduced section of the U2s impacted compared with other options as this option uses the new construction access route resulting in no vehicles passing in front of the hydro station, adjacent properties and properties to the north. Notes and clarifications: **Note 1** HGV movement accounts for entry and return. **Note 2** Vehicles to remove material, depending on quarry locations - assume 18 from north (towards Ayr) and 18 from south (towards Castle Douglas) of the site. **Note 3** All vehicles, from both north and south of site will need to use A762 and U2 hence 36 vehicles listed here. **Note 4** Extracting 45, 000 T of material, using a 9 hour working day (08:00 – 17:00 Hrs, Monday – Friday) using 36 total HGV movements per day. **Note 5** THIS CALCULATION IS FOR EARTHWORKS ACTIVITIES ONLY – NO ALLOWANCE MADE FOR DELIVERIES, SITE STAFF and VISITORS. * *45, 000 T = 22, 500 m3 material,* *HGV holds 10 m3 therefore = 2, 250 HGV movements total,* *Assume 21 working days per month = 63 working days total for earthworks phase,* *At 36 HGVs per day, this equates to a load being taken off site every 15 minutes.*	Construction of this option will result in an increase of peak of HGV movements on the following sections of road during the main earth works phase due to an area increase of 2.5 times compared with Option 1: • A713 north of A762: 18 daily HGV movements over a 5 month period; • A713 south of A762: 18 daily HGV movements between over a 5 month period; • A762 between A713 and U2s: 36 daily HGV movements over a 5 month period; • U2s: 36 daily HGV movements over a 5 month period. There would be increased disturbance on the U2s compared with Option 1 due to the location on the other side of the penstock; vehicle traffic would pass the hydro station and affect adjacent properties. Notes and clarifications: **Note 1** HGV movement accounts for entry and return. **Note 2** Vehicles to remove material, depending on quarry locations - assume 18 from north (towards Ayr) and 18 from south (towards Castle Douglas) of the site. **Note 3** This option is 2.5 times the area of Option 1 but is not necessarily 2.5 times number of vehicle movements. This is because, whereas Option 1, is almost entirely cut operation to remove material; Option 2 may be feasible to achieve some cut / fill balance in alternative location and so reduce vehicle movements on the road to less than 2.5 times but still significantly higher than Option 1. Figures provided above are an estimate on that basis. **Note 4** Durations increased to 5 months to allow for construction as it is not considered feasible to increase vehicle frequency any further from Option 1. **Note 5** THIS CALCULATION IS FOR EARTHWORKS ACTIVITIES ONLY – NO ALLOWANCE MADE FOR DELIVERIES, SITE STAFF and VISITORS.	Construction of this option will result in an increase of peak of HGV movements on the following sections of road during the main earth works phase due to an area increase of 2.5 times compared with Option 1: • A713 north of A762: 18 daily HGV movements over a 9.5 month period; • A713 south of A762: 18 daily HGV movements over a 9.5 month period; • A762 between A713 and U2s: 36 daily HGV over a 9.5 month period; • U2s: 36 daily HGV over a 9.5 month period. There would be increased disturbance on the U2s compared with Option 1 due to the location on the other side of the penstock; vehicle traffic would pass the hydro station and affect adjacent properties. Demolition of the old substation site would result in an increase of peak of HGV movements on the following sections of road during the demolition of buildings, plant and concrete foundations: • A713 north of A762: 18 daily HGV movements; • A713 south of A762: 18daily HGV movements; • A762 between A713 and U2s: 36 daily HGV movements; • U2s: 36 daily HGV movements. The requirement to remove the demolished materials would further increase disturbance on the U2s. Notes and clarifications: **Note 1**The 9.5-month period covers both construction and demolition works. **Note 2** HGV movement accounts for entry and return. **Note 3** Vehicles to remove material, depending on quarry locations - assume 18 from north (towards Ayr) and 18 from south (towards Castle Douglas) of the site. **Note 4** This option is 2.5 times the area of Option 1 but is not necessarily 2.5 times number of vehicle movements. This is because, whereas Option 1, is almost entirely cut operation to remove material; Option 3 may be feasible to achieve some cut / fill balance in alternative location and so reduce vehicle movements on the road to less than 2.5 times but still significantly higher than Option 1. Figures provided above are an estimate on that basis. **Note 5** Although areas are similar, this option has a longer duration than Option 2 due to the fact that demolition and reinstatement of the existing substation will be required. **Note 6** Durations increased to 9.5 months to allow for construction and demolition as it is not considered feasible to increase vehicle frequency any further from Option 1. **Note 7** THIS CALCULATION IS FOR EARTHWORKS AND DEMOLITION ACTIVITIES ONLY – NO ALLOWANCE MADE FOR DELIVERIES, SITE STAFF and VISITORS.	Construction of this option will result in an increase of peak of HGV movements on the following sections of road during the main earth works phase due to an area increase of 1.5 times compared with Option 1* (although this is notably less than for Options 2 and 3): • A713 north of A762: 18 daily HGV movements over a period of 8.5 months; • A713 south of A762: 18 daily HGV movements over a period of 8.5 months; • A762 between A713 and U2s: 36 daily HGV over a period of 8.5 months; • U2s: 36 daily HGV movements over a period of 8.5 months. U2s due to the location on the other side of the penstock vehicle traffic will be passing the hydro station and impacting adjacent properties. Increased disturbance. Demolition of old substation site will result in an increase of peak of HGV movements on the following sections of road during the demolition of buildings, plant and concrete foundations: • A713 north of A762: 18 daily HGV movements; • A713 south of A762: 18 daily HGV movements; • A762 between A713 and U2s: 36 daily HGV movements; • U2s: 36 daily HGV movements. The requirement to remove the demolished materials would further increase disturbance on the U2s. Notes and clarifications: **Note 1** The 8.5-month period covers both construction and demolition works. **Note 2** HGV movement accounts for entry and return. **Note 3** Vehicles to remove material, depending on quarry locations - assume 18 from north (towards Ayr) and 18 from south (towards Castle Douglas) of the site. **Note 4** This option is 1.5 times the area of Option 1 but is not necessarily 1.5 times number of vehicle movements. This is because, whereas Option 1, is almost entirely cut operation to remove material; Option 4 may be feasible to achieve some cut / fill balance in alternative location and so reduce vehicle movements on the road to less than 1.5 times but still significantly higher than Option 1. Figures provided above are an estimate on that basis. **Note 5** Durations increased to 8.5 months to allow for construction and demolition as it is not considered feasible to increase vehicle frequency any further from Option 1. **Note 6** THIS CALCULATION IS FOR EARTHWORKS AND DEMOLITION ACTIVITIES ONLY – NO ALLOWANCE MADE FOR DELIVERIES, SITE STAFF and VISITORS.
Preference	Following consideration of the technical, economic and environmental factors relating to each of the four options, **SPEN has concluded that the option to be taken forward is Option 1**. This decision has been made on the following basis: • All options are technically feasible and will achieve the same operational goal of connecting the overhead lines being proposed as part of the KTR Project. • Options 2, 3 and 4 are not economic or efficient when evaluated against SPEN's statutory and licence obligations as each of these options is at least double the cost in comparison with Option 1. • Option 2 is not efficient or coordinated, requiring construction of a new substation extension less than 200m from the existing site and increasing risks to customers fed from Glenlee during construction of the extension. • Options 3 and 4 are not efficient in that they would involve the demolition of an existing substation site with an expected remaining asset life of 20-30 years. Due to operational issues requiring the existing substation to be retained while the new substation is being constructed, it is not considered feasible to utilise existing plant and equipment on the new substation site. • Options 2, 3 and 4 extend the presence and influence of transmission electrical infrastructure beyond that of the existing substation and the Glenlee Power Station into an area of currently undeveloped farmland with mature trees on the boundary.			

Criteria	Option 1	Option 2 – Alternative substation extension location	Option 3 – Replacement of entire substation (proposed and existing) with an air insulated substation (AIS)	Option 4 – Replacement of entire substation (proposed and existing) with a gas insulated substation (GIS)
	• Options 2, 3 and 4 will likely result in re-alignment of the existing BG Route overhead line and proposed Glenlee to Tongland routes with the towers having to pass over the higher ground formed by the north-eastern shoulder of Glenlee Hill to the west, south-west of the penstock. The likely result is that these towers would be visible over a more extensive area, including views from St John's Town of Dalry and locations on the Southern Upland Way, and leading to potentially greater landscape and visual effects when compared with Option 1. • Due to their elevated nature and topography, options 2, 3 and 4 will result in extensive earthworks to construct the substation platform, leading to a further increase in vehicle movements during the construction period. • Options 2, 3 and 4 vary in development footprint size, being between 1.5 and 2.5 times larger than Option 1 and will therefore require a greater amount of materials to construct the substation platform and compound, leading to a further increase in vehicle movements during the construction period. • Options 2, 3 and 4 (the new sites separate from the existing substation) will create a greater visual impact to the surrounding area in comparison to Option 1.			

Figures

Glenlee Substation Extension Environmental Impact Assessment

Glenlee Substation
Option 1

Area of New Development
Land Take

0 50 100 Metres

Map Scale @ A3: 1,250

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CB:JN EB:nunn_j LUCGLA OPTION1-4_6113-001_Glenlee_Substation_A3L 09/08/2018

Glenlee Substation Extension Environmental Impact Assessment

Glenlee Substation
Option 2

- Existing Infrastructure
- New Development
- Plant to be removed
- Land Take

0 50 100 Metres

Map Scale @ A3: 1,250

LUC

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Glenlee Substation Extension Environmental Impact Assessment

Glenlee Substation
Option 3

- Existing Infrastructure
- New Development
- Plant to be removed
- Land Take

0 50 100 Metres

Map Scale @ A3: 1,250

LUC

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CB:JN EB:nunn_j LUCGLA OPTION1-4_6113-001_Glenlee_Substation_A3L 09/08/2018

Glenlee Substation Extension Environmental Impact Assessment

Glenlee Substation
Option 4

- New Development
- Plant to be removed
- Existing Infrastructure
- Land Take

0 50 100 Metres

Map Scale @ A3: 1,250

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CB:JN EB:nunn_j LUCGLA OPTION1-4_6113-001_Glenlee_Substation_A3L 09/08/2018

Appendix C: Consultation second round (2019) leaflet, newspaper advertisements and exhibition banners

Leaflet

[illegible]
specifically for Glenlee substation before, and separate from, our [illegible] the Town and Country Planning (Scotland) Act 1997, as amended.

[illegible] an 'Appraisal of Alternative Substation Options' Report (available at [illegible]), which confirmed our proposed site should [illegible] neighbouring residents to find ways to minimise disturbance to them [illegible]

[illegible] Assessment (EIA) of our proposals, even though this is not a statutory requirement. The EIA will include potential construction impacts, so [illegible]

[illegible]

- [illegible]
- [illegible] traffic routes
- [illegible]
- [illegible]

[illegible] ensure the transmission network in this area is fit for purpose. You can find out more about the wider KTR project at our website. [illegible]

[illegible] before we finalise our proposals. We will produce a Pre-Application Consultation (PAC) Report detailing the feedback received and how [illegible] Galloway Council, which we expect to submit in late August 2019.

[illegible] summer 2020 and will finish in autumn 2024.

SP ENERGY NETWORKS

[illegible] improvements on the A762 and the road leading to Glenlee power station, [illegible]

This will include a new 2.74m steel palisade security fence around [illegible] existing watercourse that crosses the field into a culvert underneath [illegible]

Construction traffic will use the A713 and then the A762 before turning west at Coom Bridge on to the U2S (the existing unclassified access [illegible]

We propose to create temporary passing places on the A762 and the unclassified road leading to Glenlee to ensure the safety of all road users during the construction works. The final proposal for these will be included [illegible] Construction Traffic Management Plan during the works.

[illegible] and final details will be agreed through a landscape mitigation plan [illegible]

- A temporary construction compound for initial enabling works [illegible] works compound), on the site of the overflow car park, north-east of [illegible]
- A second temporary compound for main construction works, west of [illegible]
- A temporary vehicle holding area up-slope from the proposed [illegible]
- [illegible]

All temporary works areas (compounds, vehicle holding area and soil [illegible]

[illegible] approximately 90m x 40m, [illegible] green field land, and to the [illegible] undeveloped green field land.

Newspaper advertisements

SP ENERGY NETWORKS

Glenlee substation extension

We'd like your views!

SP Energy Networks needs to extend Glenlee substation, next to the hydro power station, to accommodate the extra equipment needed to operate the new overhead lines proposed as part of the Kendoon to Tongland Reinforcement (KTR) Project.

Last year we held a consultation about the proposed extension, road improvements, construction traffic routes and landscaping plans.

Now we want to hear your views on all aspects of the proposals, including our temporary construction works. These include compounds for plant and equipment, drainage works and a vehicle holding area.

We are consulting on our plans for Glenlee substation from **Monday 10 June to Friday 05 July**.

We are holding a public exhibition on Tuesday 11 June from 4pm to 8pm at the CatStrand Arts & Visitor Centre, High Street, New Galloway, DG7 3RN where you can view our plans and ask questions of our project team.

You can also view the proposals on our website **www.spendgsr.co.uk**.

To contact us or give us your views:
Email: dgsr@communityrelations.co.uk
Post: FREEPOST SPEN DGSR
Freephone: 0800 157 7353

At this stage, your comments are not representations to the planning authority. We expect to submit a planning application to Dumfries and Galloway Council in late summer, and you will be able to make formal representations at that stage.

Exhibition banners

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements, landscaping and temporary construction works

Why is this work needed?

We need to extend Glenlee substation to accommodate the extra equipment needed to operate the new overhead lines proposed as part of the Kendoon to Tongland Reinforcement (KTR) Project.

However, the work at Glenlee needs to be completed before we build the new overhead lines, so we need to make a planning application specifically for Glenlee substation before, and separate from, our application for the KTR Project.

We have been planning and consulting with local communities on our proposals for the KTR Project for three years, and in March last year we consulted specifically on our plans to extend the substation.

We have now decided to carry out a full Environmental Impact Assessment (EIA) of our proposals, even though this is not a statutory requirement. The EIA will include potential construction impacts, so the 'red line boundary' on our plans has been extended to include temporary as well as permanent works.

Because we have extended the 'red line boundary', we are consulting again so that local people can give us their views on this larger area and both the temporary and permanent works.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements, landscaping and temporary construction works

How and where will the substation be extended?

The proposed extension covers an area of approximately 90m x 40m, primarily to the south west of SPEN's existing substation site.

The proposed extension site is bounded to the north by the existing hydropower station, substation and local road, to the east by residential housing and a local road, to the south by undeveloped green field land, and to the west by the penstock of the Glenlee Power Station and undeveloped green field land.

The work will include a new 2.74m steel palisade security fence around the perimeter, new electrical switchgear and plant to connect the proposed new KTR overhead lines, and drainage works to divert the existing watercourse that crosses the field into a culvert underneath the substation.

Our temporary works will include:

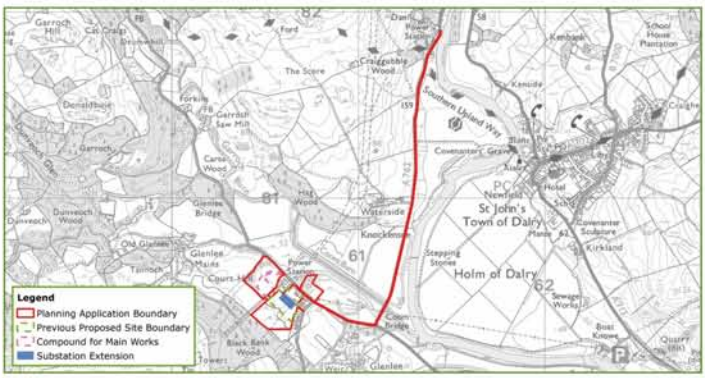
- A temporary construction compound for initial enabling works (including road improvements and formation of the main construction works compound), on the site of the overflow car park, north-east of the substation on the opposite side of the public road (U2S)
- A second temporary compound for main construction works, west of the existing substation and behind the power station (an area used for previous construction works)
- A temporary vehicle holding area up-slope from the proposed substation extension
- Temporary drainage measures to prevent the pollution of watercourses during construction

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements, landscaping and temporary construction works

Road improvements



Construction traffic will use the A713 and then the A762 before turning west at Coom Bridge on to the U2S (the existing unclassified access road to Glenlee village, substation and power station).

We propose to create temporary passing places on the A762 and the U2S roads leading to Glenlee, to ensure the safety of all road users during the construction works. The final proposal for these will be included in our planning application.

Our temporary works will also include a vehicle holding area up-slope from the proposed substation extension, to help us manage vehicles entering and leaving the site.

Vehicle movements will be managed using a Construction Traffic Management Plan during the works.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements, landscaping and temporary construction works

Landscaping

How the site looks now

How the site will look after the extension

Note: photo montage does not include landscaping proposals

We plan to use the rising landform to the south west of the proposed extension to limit visibility of the site from the surrounding area, including nearby residential properties. Glenlee power station and the existing substation will limit visibility of the proposed extension from the wider Glenkens Valley.

We plan to plant native shrubs and trees to the south and west of the proposed extension to soften the appearance of the perimeter of the site and help the development blend in to the surrounding landscape more effectively. The types and heights of trees and shrubs will be informed by local planning policy and guidance and the need to maintain safety clearances from the proposed and existing steel towers and overhead lines.

We will submit draft landscape proposals with the planning application, and final details will be agreed through a landscape mitigation plan.

Find out more at **www.spendgsr.co.uk**

SP ENERGY NETWORKS

Glenlee Substation
Proposed extension, road improvements, landscaping and temporary construction works

We need your views

We want to know what you think about our plans for Glenlee substation, including:

- The proposed substation extension
- Proposed road improvements and construction traffic routes
- Landscaping proposals
- Other issues

How to get in touch

You can give us your views by contacting us as follows:
Email: dgsr@communityrelations.co.uk
Post: FREEPOST SPEN DGSR
Freephone: 0800 157 7353

The deadline for feedback is Friday 05 July, 2019

What happens next?

We will produce a Pre-Application Consultation (PAC) Report detailing the feedback received and how this has been taken into account in the design of the proposals. This report will accompany our planning application to Dumfries and Galloway Council, which we expect to submit in late August 2019.

Subject to receiving planning consent, work will start on site in summer 2020 and should finish in autumn 2024.

Find out more at **www.spendgsr.co.uk**