SP ENERGY NETWORKS

Powering the future

Kendoon to Tongland 132kV Reinforcement Project

A 132kV overhead line, similar to some of those required between Kendoon and Tongland

Public consultation – November 20, 2017 until January 26, 2018
Deadline for feedback January 26, 2018

Background

Since 2015 SP Energy Networks has been consulting communities about our plans to modernise the ageing 132,000-volt (132kV) electricity network between Kendoon and Tongland.

These overhead lines connect five of Galloway's hydro-electric power stations to the network so that homes and businesses can use the energy they produce. They also link the area to other electricity sources and users to the north in Ayrshire and east in Dumfries.

But at more than 80 years old, the lines - which run from Polquhanity in the north, through Glenlee and down to Tongland substation - are at the end of their operational life.

To make sure they continue their vital job supplying reliable electricity for generations to come, we need to replace them.

The current 46km line is built entirely of steel lattice overhead line towers. Our new line will replace some of these towers with wooden poles, but the new towers we need will be taller than those that are there at the moment.

More information

This leaflet is just a guide to the project and the consultation. For more detailed information about the project, the process, and the work we've done so far please visit our website www.spendgsr.co.uk

The third round of consultation

Our second round of consultation in 2016 helped us identify proposed routes for the new overhead lines.

Through a combination of engineering design, environmental survey information and landowner discussions we have now developed more detailed locations for the towers, wooden poles and associated infrastructure.

We have also developed our proposals to upgrade and extend Glenlee substation. These will be the subject of a separate planning application which we hope to make in early 2018.

See inside for more information, maps, details of public exhibitions, how you can make contact and how you can give us your views.

Please make sure you send us your feedback by midnight on January 26, 2018

Kendoon to Tongland 132kV Reinforcement Project

Our existing overhead lines between Kendoon and Tongland are all 132kV and supported on steel towers approximately 20m high. In some places there are three wires (a single circuit) and in others there are six (a double circuit).

Double circuits can carry more power than single circuits. By replacing the existing overhead lines with more double circuits we can provide extra resilience and security for local electricity supplies at the same time as making sure they operate for decades to come. The extra capacity will also give us more flexibility for future generation developments in the area.

We are proposing to build a new double circuit line all the way from Polquhanity to Glenlee and from Glenlee to Tongland, and two single circuit connections between Kendoon and Carsfad and Earlstoun and Glenlee power stations.

We also need to extend our existing 132kV substation at Glenlee to the south west by approximately 90m by 40m and may need to carry out a minor boundary extension to the existing Kendoon substation.

Once the new overhead lines are completed and energised, we can remove the existing ones.

The single circuit 132kV overhead line between Glenlee and Tongland

About this round of consultation

The last round of consultation helped us decide the best proposed route for the new line. At 200m wide, it was still a broad swathe of land. The actual alignment, including detailed tower and pole locations, will be much narrower and more defined. That's what we have been working on since we last spoke to you.

After taking account of your feedback, together with a wide range of environmental and technical factors, we have now drawn up a detailed route showing potential tower and pole locations, as well as potential construction access tracks and working areas. These are what we are asking for your opinion on now.

The locations we are suggesting have been designed using detailed topographical, engineering and environmental information. However, these are not yet fixed. The suggested locations are contained within a 'design envelope' which will form the basis for this consultation. This allows us to make small adjustments to suggested locations following the consultation, to take account of any very localised circumstances at the final stage where possible. This is a normal part of the design process.

You can find an overview of what we're planning in each area on the inside fold-out of this leaflet and there are much more detailed maps of each location in our Consultation Document (October 2017), which is available online and at information points.

Please note: we are not asking for your views on Glenlee substation as part of this consultation as this will now be the subject of a separate planning application. Please see the opposite page.

Changes to the consent strategy

In Scotland, consent for new overhead lines is governed by section 37 of the Electricity Act 1989. The decision makers in this process are the Scottish Ministers.

Our application for section 37 consent would include permission for the towers and poles, as well as ancillary work like temporary access roads for construction, cable entries to substations and the removal of the existing overhead lines between Polquhanity, Kendoon, Carsfad, Earlstoun, Glenlee and Tongland.

We need to extend Glenlee substation to accommodate the extra equipment we need to operate the new overhead lines. Although it is part of the Kendoon to Tongland Reinforcement (KTR) Project, this work needs to be completed before we build the overhead lines, so we will be making a separate planning application for the substation extension to Dumfries & Galloway Council in early 2018. It will not form part of our Section 37 consent application to the Scottish Government, but it will still be accompanied by a comprehensive environmental appraisal contained in an environmental report covering all relevant issues, such as Landscape and Visual Impact Assessment (LVIA), and traffic and transport.

Have your say on Glenlee substation

We have been planning and consulting with local communities on our proposals for Glenlee as part of the Kendoon to Tongland Reinforcement (KTR) Project for two years and have considered their feedback when designing the extension for Glenlee substation.

Although we are not asking for your opinion on our substation plans as part of this consultation, you can still make your views about it known direct to the Council once a planning application is made.

After we have submitted the planning application, Dumfries & Galloway Council will conduct its own statutory consultation. This is the correct time to give your views.

We will publicise the application on our website and send an update to people who have signed up to receive emails from us to let them know it has been submitted.

You can sign up for emails using the form on our website or sending us a request to dgsr@communityrelations.co.uk. We only send emails relating to the KTR Project.

Existing 132kV substation at Glenlee

How to make your views known

Our third round of consultation will run for 10 weeks from November 20, 2017 until January 26, 2018. This consultation period is longer than usual, to take account of Christmas when people may be away. Below are the best ways to find out more or talk to us.

Come and meet us: We're holding three public exhibitions (see inside for details). Here you can see detailed maps, see our plans first hand, talk to members of the project team and pick up a feedback form.

Visit the website: Our dedicated website www.spendgsr.co.uk has lots more information. You can view or download all the project documents, send us your feedback online and sign up for project updates by email.

Call us: Our Freephone number is 0800 157 7353. Lines are open during normal office hours. Outside these hours you can leave a message but be sure to leave your contact details so we can call you back. Call us for information or to request a feedback form.

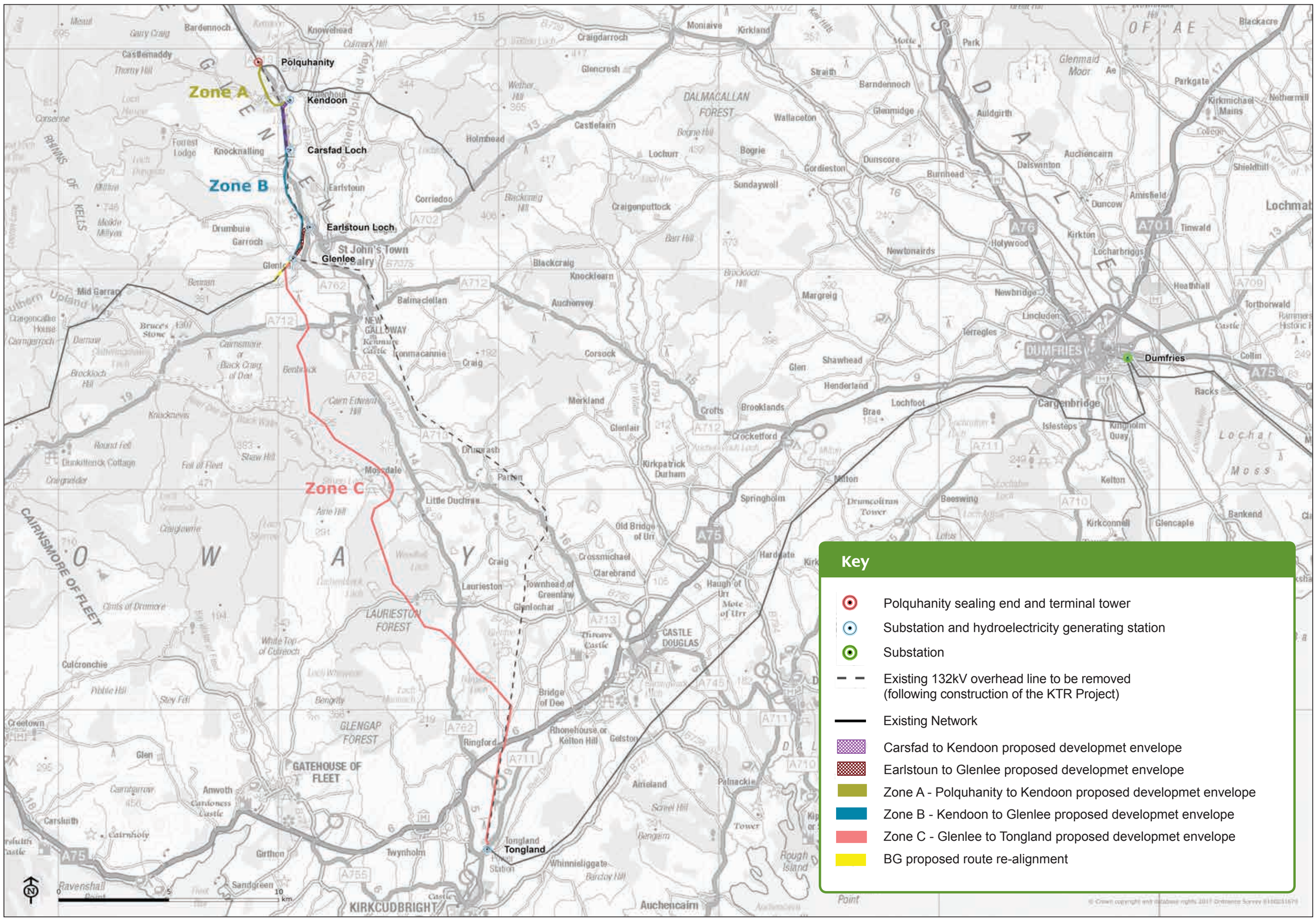
Write to us: Email us at dgsr@communityrelations.co.uk or write to us at FREEPOST SPEN DGSR (no stamp needed, just write the address exactly as it appears in a single line).

Key project documents

The following documents are also available which provide more detail about the project. You can find them on our website and at information points:

- **KTR Project: Consultation Document (October 2017)** - For detailed maps and information about alignment and location of new apparatus.
- **KTR Scoping Report (May 2017)** - Copy of SPEN's scoping request to the Scottish Ministers.
- **KTR Scoping Response from the Scottish Ministers (October 2017)** - Following a period of consultation with key stakeholders involved in the decision making process, the Scottish Ministers issued their formal scoping response detailing the issues to be included in the KTR environmental statement which will be submitted in support of SPEN's eventual Section 37 consent applications.
- **Summary of feedback from the second round of consultation (2016)** - Which contains the feedback received during the second round of consultation and how this influenced our proposed route.
- **SP Energy Networks: Approach to Routeing and Siting Major Transmission Infrastructure (May 2017)** - Describing the approach SPEN takes to routeing overhead lines.

If you would like a large text or alternative version of this document please contact us on 0800 157 7353 or go to our website www.spendgsr.co.uk.



What we need your views on

We would like to know what you think about our detailed route alignment and the potential tower and pole locations, as well as potential access track locations. Tell us if you think there is anything else you think we should take into account. We would particularly like to hear your views on your local area, for example areas you use for recreation, local environmental features you would like us to consider and any plans you may have to build in the areas we have identified.

Freephone: 0800 157 7353
Email: dgsr@communityrelations.co.uk
Post: FREEPOST SPEN DGSR

Information points

Folders containing this leaflet and all the project information will be available throughout the consultation period at the following venues. Please check in advance as opening times may vary.

Dalry Library Main Street, St. John's Town of Dalry, DG7 3UP. Tel: 01644 430234.
Kirkcudbright Library High Street, Kirkcudbright, DG6 4JW. Tel: 01557 331240.
Dumfries Ewart Library Catherine Street, Dumfries, DG1 1JB. Tel: 01387 253820.
Dumfries Planning Office English Street, Dumfries, DG1 2HS. Normal office hours.

Exhibitions

Exhibitions start at 2pm and run until 8pm.

Tuesday November 21, 2017
New Galloway
CatStrand Arts & Visitor Centre
High Street, DG7 3RN

Wednesday November 22, 2017
Kirkcudbright
Kirkcudbright Parish Church Hall
St. Mary Street, DG6 4AQ

Thursday November 23, 2017
Mossdale
Mossdale Village Hall
Mossdale, DG7 2NF

Timeline

Nov 2017
- Start of 3rd round of consultation on KTR Project (overhead lines)

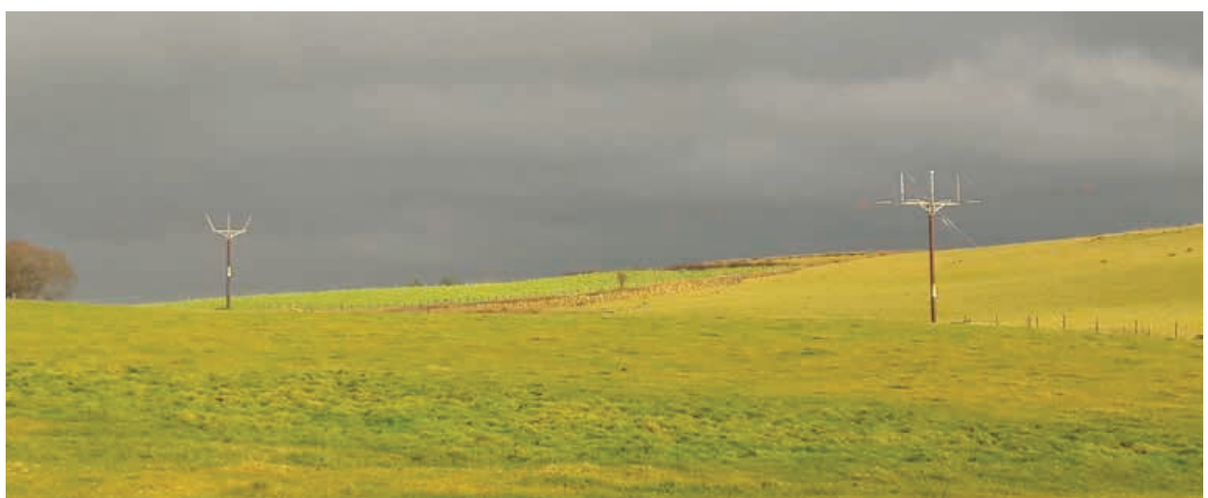
Early 2018
- Local planning application submitted to Dumfries & Galloway Council for extension to Glenlee substation, followed by statutory consultation

Jan 2018
- Consultation on KTR Project closes

Early 2019
- Section 37 consent application for overhead lines submitted to Scottish Government, followed by statutory consultation

2020
- Work starts on site (dependent on consents being granted)

2023
- Project is complete



A typical 132kV 'Trident' wooden pole overhead line

How the new towers and poles will look

Because our new overhead lines will be mostly double circuits, we will need to use a different, larger type of steel tower to support them. The diagram below shows our existing towers (PL1), which have a standard height of 20m. The new towers (L4 and L7) are larger, with standard heights of 26m and 27m respectively, and have six arms instead of three. That's because each of the two new circuits has three sets of wires and there is also an earth wire which runs along the top.

The towers shown here are 'straight line' towers. Where the line changes direction a different 'angle' tower will be used. In some places, where the ground is sloped or we need to cross features like roads or streams, we may need to increase tower heights to make sure we maintain enough safety clearance. Details of these additional tower types and where we need them are contained in our Consultation Document (see back of this leaflet for how to find a copy).

Wherever we can still use single circuit overhead lines these will be supported on 'Trident' wood poles (as shown in the picture above) rather than the steel towers which are there at the moment.

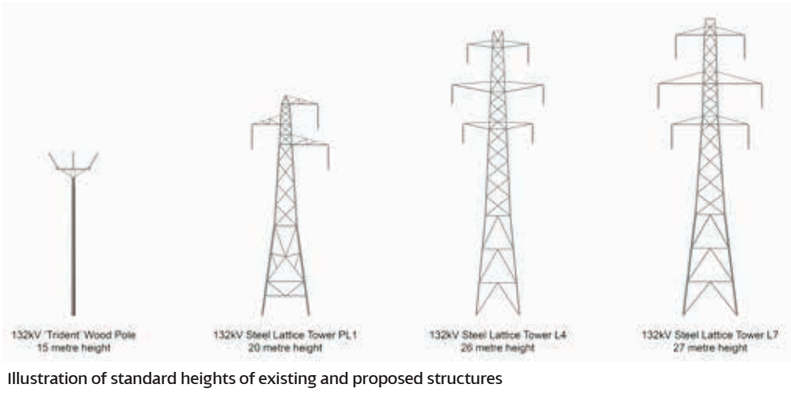


Illustration of standard heights of existing and proposed structures

Line removal

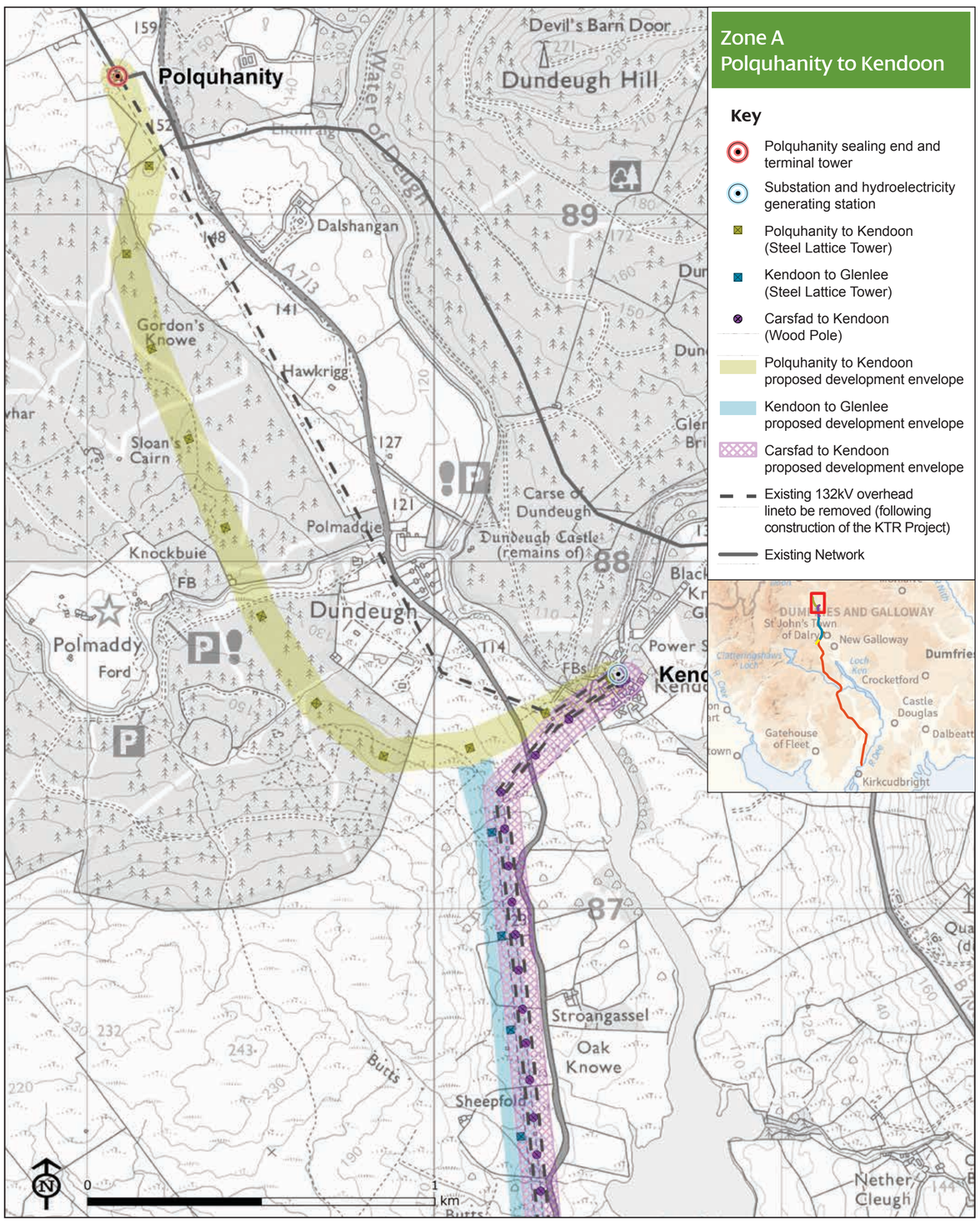
We can't remove the existing overhead lines until the new ones are built, but when the project is complete they will be taken down. Once the line is decommissioned, the towers will be removed and the components reused where possible. Foundations are removed to a minimum depth of one metre below ground level, the area cleared and the ground reinstated.

About the detailed alignment

After studying landscape, environmental and technical requirements, together with land owner and stakeholder feedback, we have identified a detailed alignment for the overhead line including tower and pole locations and potential access tracks.

The maps on this page show an overview of the project and key features. Much larger scale detailed maps showing all the locations are contained in our Consultation Document (see back of this leaflet for how to find a copy).

The locations in our Consultation Document are shown as part of a proposed 'Development envelope', which means we are allowing some tolerance in the project we eventually put forward for development consent. A tolerance is permission to allow the precise alignment of the new line to be subject to later micro adjustment within set limits, if it helps to protect or reduce the effect on specific issues, such as protected species. The tolerance would be 50m either side of our suggested alignment. This is a normal part of the design process.

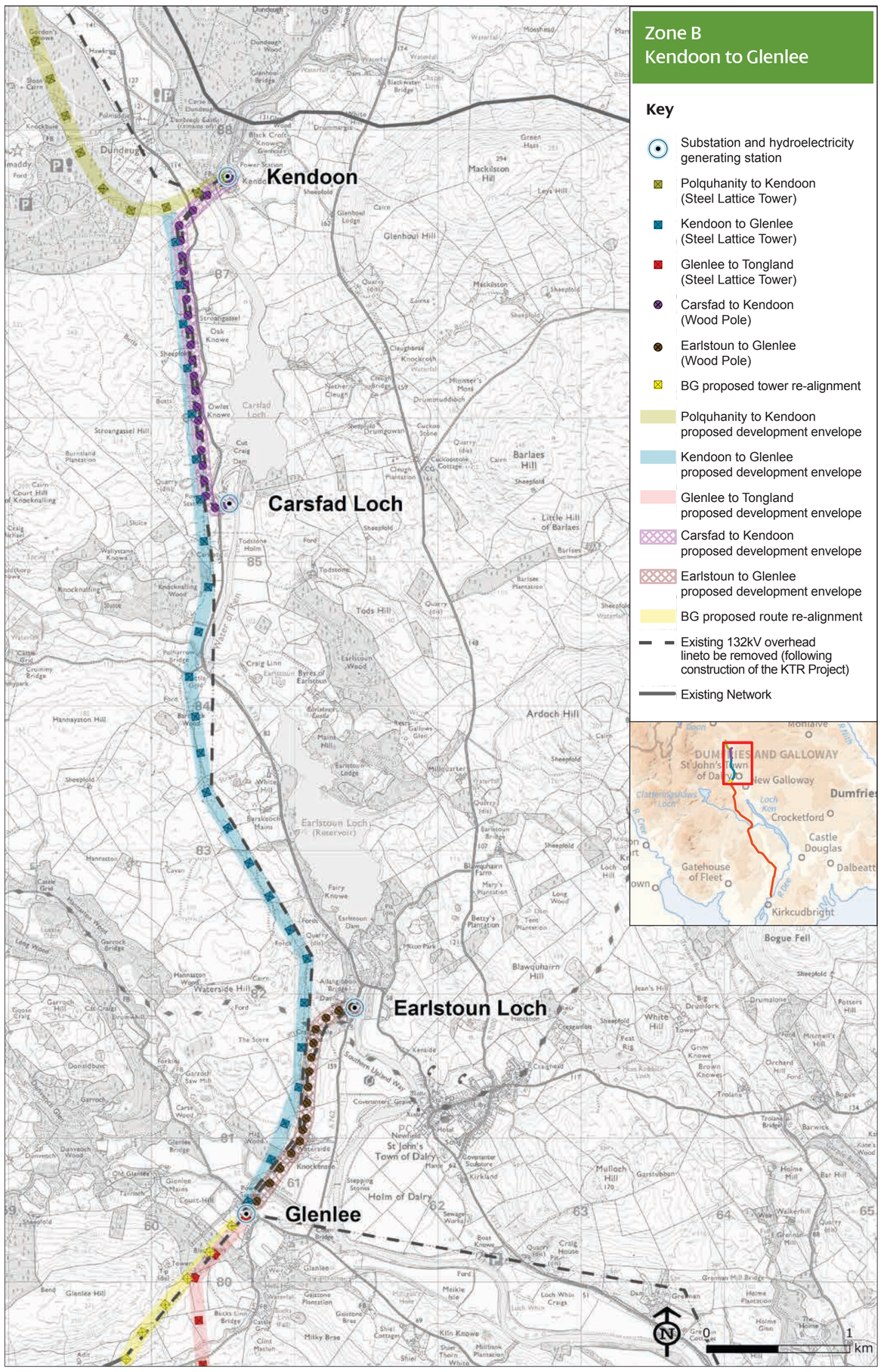


Zone A: Polquhanity to Kendoon

In this zone, the proposed overhead line starts at the point where another overhead line ends. It finishes at the existing Kendoon substation.

At the moment, the existing 132kV overhead line in this area is a mixture of single and double circuits supported on steel towers with a standard height of 20m. It will be replaced by a new double circuit 132kV overhead line supported on L7 steel towers with a standard height of 27m (exact tower heights will vary based on the final engineering design, which will take account of factors such as topography to ensure minimum ground safety clearances are maintained).

The substation at Kendoon may also need a small boundary extension to accommodate new connection works. Further details on this extension are included in the consultation document.

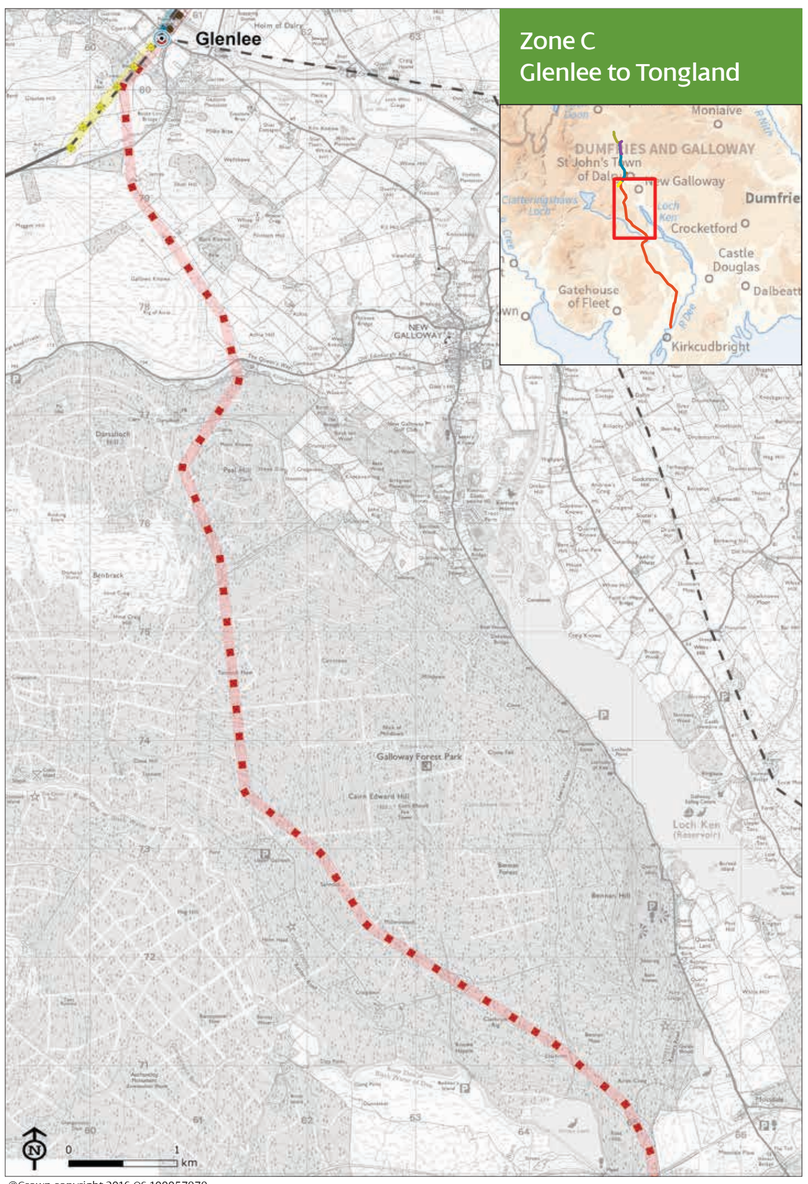


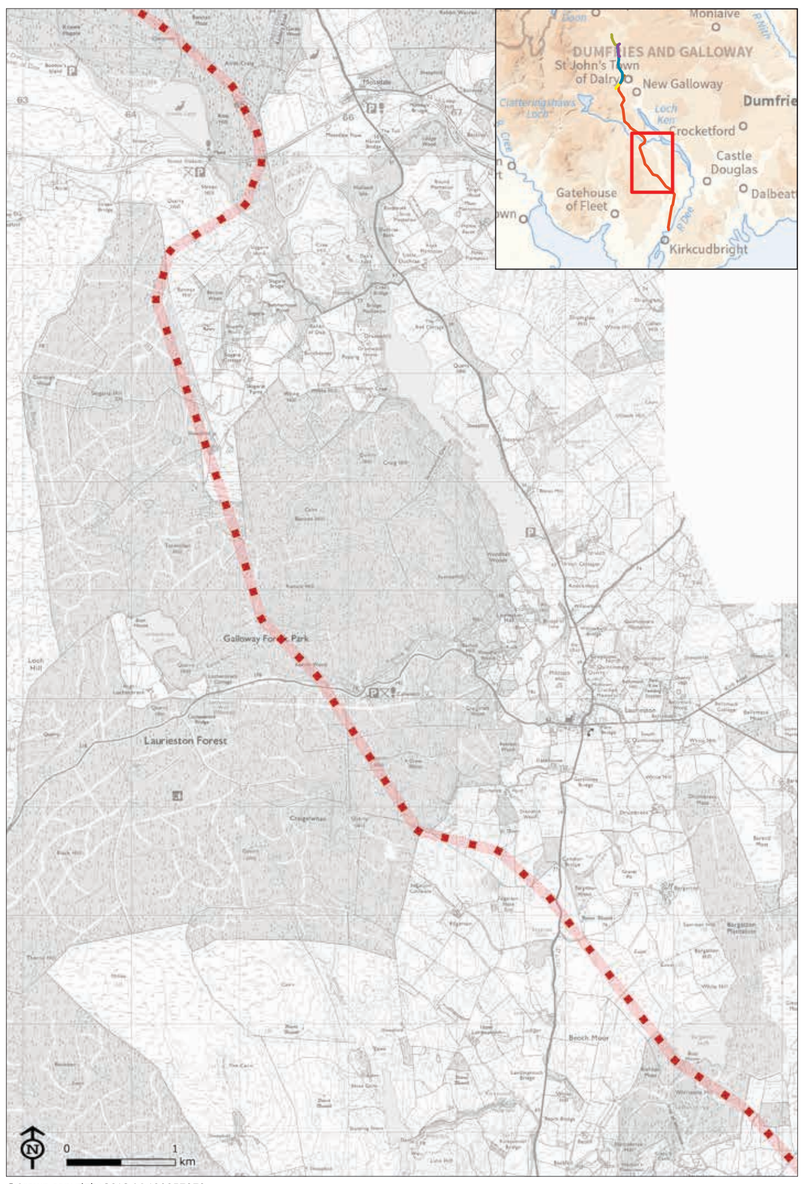
Zone B: Kendoon to Glenlee

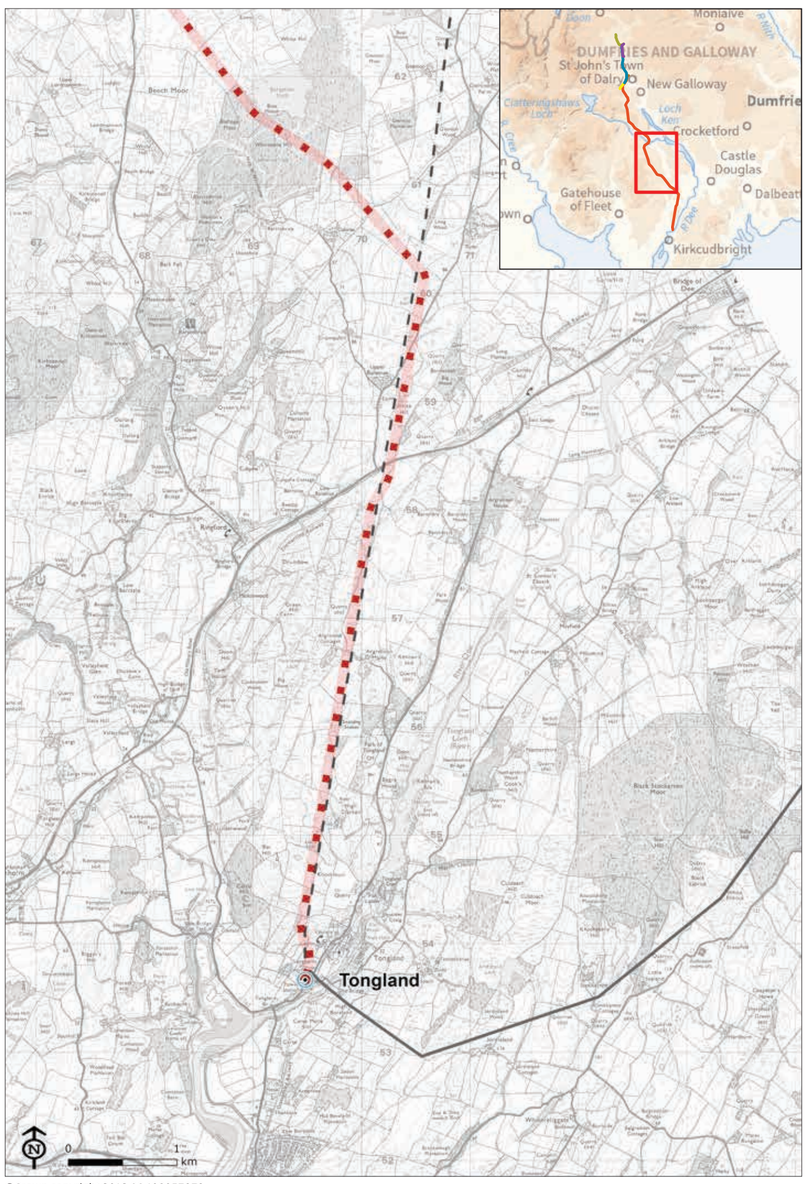
This zone requires three new 132kV overhead lines. One will be supported on steel towers. The other two will be supported on wooden poles.

At the moment the three existing 132kV overhead lines consist of single and double circuits supported on PL1 steel towers with a standard height of 20m. They will be replaced by:

- A new double circuit 132kV overhead line between Kendoon and Glenlee supported on L7 steel towers with a standard height of 27m;
- A new 132kV overhead line between Carsfad and Kendoon on 'Trident' wooden poles with a standard height of 15m; and
- A new 132kV overhead line between Earlstoun and Glenlee on 'Trident' wooden poles with a standard height of 15m.







Zone C: Glenlee to Tongland

At the moment, the existing 132kV overhead line between Glenlee and Tongland is a mixture of single and double circuits supported on PL1 steel towers with a standard height of 20m. It will be replaced by a new double circuit 132kV overhead line supported on L4 steel towers with a standard height of 26m (exact tower heights will vary based on the final engineering design, which will take account of factors such as topography to ensure minimum ground safety clearances are maintained).

Key

- Substation and hydroelectricity generating station
- Kendoon to Glenlee (Steel Lattice Tower)
- Glenlee to Tongland (Steel Lattice Tower)
- Earlstoun to Glenlee (Wood Pole)
- BG proposed tower re-alignment
- Kendoon to Glenlee proposed development envelope
- Glenlee to Tongland proposed development envelope
- Earlstoun to Glenlee proposed development envelope
- BG proposed route re-alignment
- Existing 132kV overhead lineto be removed (following construction of the KTR Project)
- Existing Network