Scottish & Southern Electricity Networks
TRANSMISSION

Powering change together

The time has come to further enhance Scotland's energy infrastructure, providing power for future generations as we move towards net zero.

The shift to a cleaner, more sustainable future is about more than climate change. It's about ensuring future generations have the same opportunities to thrive as we have all had.

Countries around the world are investing in their energy infrastructure to support the demands of modern economies and meet net zero targets. The UK is leading the way in building a modern, sustainable energy system for the future.

We all have a part to play

When it comes to net zero, we have to be in it together. The UK and Scottish governments have ambitious net zero targets, and we're playing our part in meeting them.

We work closely with the National Energy System Operator (NESO) (previously National Grid Electricity System Operator) to connect vast renewable energy resources—harnessed by solar, wind, hydro and marine generation—to areas of demand across the country. Scotland is playing a big role in meeting this demand, exporting two thirds of power generated in our network.

But there's more to be done. By 2050, the north of Scotland is predicted to contribute over 50GW of low carbon energy to help deliver net zero. Today, our region has around 9GW of renewable generation connected to the network.

At SSEN Transmission, it is our role to build the energy system of the future.

We're investing over £20 billion into our region's energy infrastructure this decade, with the potential for this to increase to over £30 billion. This investment will deliver a network capable of meeting 20% of the UK's Clean Power 2030 target and supporting up to 37,000 jobs, 17,500 of which will be here in Scotland.

Scan the QR code with your smartphone to find out more about how these policies have been assessed and determined.

Who we are

We're responsible for maintaining and investing in the electricity transmission network in the north of Scotland. We're part of SSE plc, one of the world's leading energy companies with a rich heritage in Scotland that dates back more than 80 years. We are also closely regulated by the GB energy regulator Ofgem, who determines how much revenue we are allowed to earn for constructing, maintaining and renovating our transmission network.

What we do

We manage the electricity network across our region which covers a quarter of the UK's land mass, crossing some of the country's most challenging terrain. We connect renewable energy sources to our network in the north of Scotland and then transport it to where it needs to be. From underground/subsea cables and overhead lines to electricity substations, our network keeps your lights on all year round.

Working with you

We understand that the work we do can have an impact on communities. So we're committed to minimising our impacts and maximising all the benefits that our developments can bring to your area. We're regularly assessed by global sustainability consultancy AccountAbility for how we engage with communities. That means we provide all the information you need to know about our plans and how they will impact communities like yours. The way we consult is also a two-way street. We want to hear people's views, concerns, or ideas and harness local knowledge so that our work benefits their communities: today and long into the future. You can share your views with us at: **ssen-transmission.co.uk/talk-to-us/contact-us**

BDUP@sse.com
07879 793 652
ssen-transmission.co.uk/cambushinnie

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The Pathway to 2030

Building the energy system of the future will require delivery of significant infrastructure over the next few years. In partnership with the UK and Scottish governments, we're committed to meeting our obligation of connecting new, renewable energy to where it's needed by 2030.

Achieving Net Zero

By 2030, both the UK and Scottish governments are targeting a big expansion in offshore wind generation of 50GW and 11GW respectively. The Scottish Government has also set ambitious targets for an additional 12GW of onshore wind by 2030.

Across Great Britain, including the north of Scotland, there needs to be a significant increase in the capacity of the onshore electricity transmission infrastructure to deliver these 2030 targets and a pathway to net zero.

Securing our energy future

And it's not just about net zero. It's also about building a homegrown energy system, so that geopolitical turmoil around the world doesn't severely impact the UK and push up energy prices.

The UK Government's British Energy Security Strategy further underlines the need for this infrastructure, setting out plans to accelerate homegrown power for greater energy independence. The strategy aims to reduce the UK's dependence on, and price exposure to global gas wholesale markets through the deployment of homegrown low carbon electricity generation, supported by robust electricity network infrastructure.

Meeting our 2030 targets

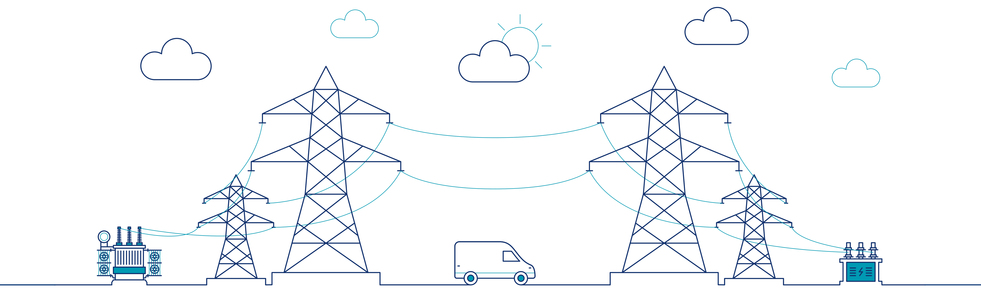
In July 2022, National Grid, the Electricity System Operator (ESO), published the Pathway to 2030 Holistic Network Design (HND). This set out the blueprint for the onshore and offshore transmission infrastructure that's required to support the forecasted growth in the UK's renewable electricity. It's an ambitious plan that will help the UK achieve net zero.

What does this mean for central Scotland?

Extensive studies informing the ESO's Pathway to the 2030 Holistic Network Design confirmed the need to upgrade the second circuit of the Beauly – Denny Overhead Line (OHL) from 275kV to 400kV.

To do this, we require to construct two new 400kV substations at Braco West and in the Fasnakyle area. We'll also require modifications or extensions to other substations along the route, including Fort Augustus, Errochty, Kinardochy and Tummel. Connections to existing substations will also be required as part of the upgrade. The upgrade of the Beauly – Denny circuit will help deliver the significant increased capacity needed to transport energy from new large scale onshore and offshore renewable generation (mainly wind farms) to demand centres via onshore and HVDC subsea links.

These projects have been highlighted as critical to delivering the UK and Scottish Government's targets,with the development of them accelerated to meet the target dates of energisation by 2030.



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07879 793 652

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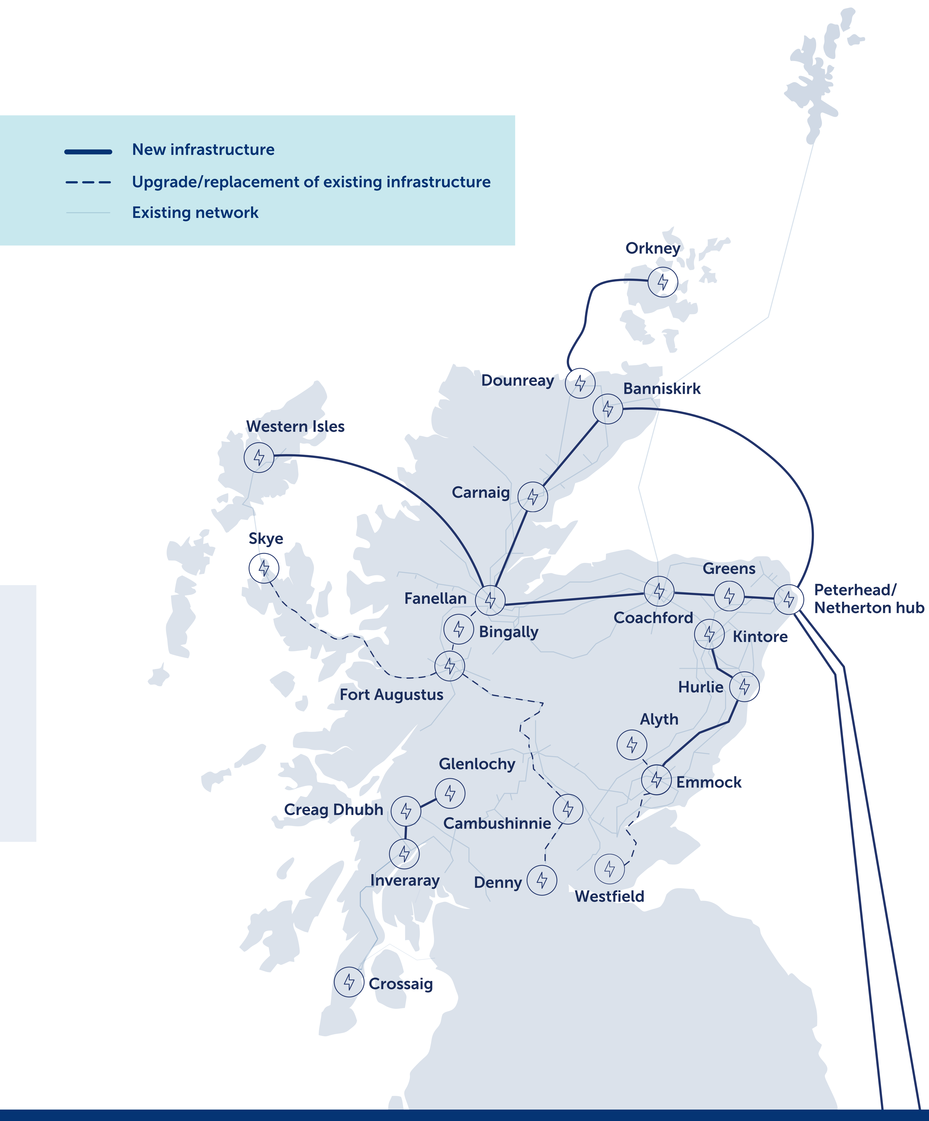
The Pathway to 2030

Future network investment requirements

To deliver energy security and net zero, further additional investment in new low carbon electricity generation and the enabling electricity transmission network infrastructure will be required across Great Britian, including the north of Scotland.

In March 2024, NESO published its 'Beyond 2030' report, which confirmed the need for several new, replacement and upgraded transmission infrastructure projects in the north of Scotland. In December 2024, Ofgem approved the next phase of regulatory funding to take these projects through the development phase.

These additional investments will soon be subject to extensive public consultation and engagement to help inform their development, with early consultation and engagement expected to take place during 2025.



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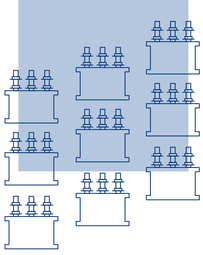

Wider Cambushinnie project overview

This consultation is related to the proposed haul road located near Braco, which will support the proposed substation construction.

The project team have engaged with the local community since August 2023 on proposals for the Cambushinnie 400kV substation project. The consultation period for the Cambushinnie substation and overhead line development is now complete, with final documents for planning permission being prepared, and the planning application due to be submitted in Q2 2025.

Beauly-Denny 400kV upgrade

The Beauly-Denny line was constructed for 400kV operation on each of its two circuits but put into service with one operating at the lower voltage of 275kV. This project will see the second circuit being uprated from 275kV to 400kV, to allow new renewable energy generation to be connected to the transmission network in the coming years.

As the line was built to run at 400kV, no alterations are required to the existing Overhead Line (OHL). However, existing 275kV connections along the OHL will need to be upgraded to allow them to continue to connect to the uprated circuit.

This means the following will be required at sites along the route:

- A new 400kV substation near Braco, named Cambushinnie substation.
- A new 400kV substation in the Fasnakyle area, named Bingally substation.
- Connections from the new substations to both the Beauly - Denny OHL (via small diversions) and the existing substations (via underground cable).
- In addition, modifications or extensions are required to other substations along the route, including Fort Augustus, Errochty, Kinardochy and Tummel.

Cambushinnie 400kV substation

The project will involve construction of a new outdoor 400kV Air Insulated Switchgear (AIS) substation, located immediately west of the existing Braco West 275kV substation.

Proposed development description:

- The approximate maximum dimensions of the proposed substation platform are 420m x 230m, not including the earthworks required to create a level platform.
- Space provision to allow for connection of future renewable energy generation projects.
- Areas for drainage, landscaping/ screening and habitat enhancement.
- Permanent and temporary access roads, with temporary areas required during construction for laydown and welfare.
- The new substation will require OHL tie-in works, comprising a new terminal tower adjacent to the substation. The new terminal tower will be of a similar height (up to 63m) and type to the existing towers. A temporary OHL diversion, including up to three towers, will also be required during the construction phase to allow the new permanent tower to be built. The OHL tie-in will not form part of the formal planning application for the Cambushinnie 400kV substation. Instead, an application will be made to the Scottish Government's Energy Consents Unit (ECU) for consent under Section 37 of the Electricity Act.

Construction access

For construction access to the substation, an existing access track which serves the existing Braco West 275kV substation will be utilised between the B8033 at Easter Feddal (west of Braco) and the proposed development. Upgrades will be required, such as widening at certain locations to accommodate the transportation of abnormal sized items. Further information on the haul road is covered throughout this consultation material.

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07879 793 652

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The haul road

Why it is necessary

Due to the size of abnormal load required for transformer delivery for the substation, which cannot pass through Braco village, a new access track (referred to as the haul road) is proposed between the A822 and Easter Feddal, via the B8033 south of Braco near Keirallan. This will be permanent in nature to facilitate both construction traffic and any operational requirements to remove any transformers from site in the event of a fault, with spare transformers to be stored at our warehouses. The haul road will be 6.5m in width with a bridge over the Keir Burn. The requirements for the haul road form its own planning independent of the substation.

What it will look like

The haul road will run from the A822, south of Braco, crossing the Keir Burn and B8033, before continuing north-west through the fields towards Easter Feddal. The haul road will then connect to the existing private track, which leads towards the existing Braco West substation.

The road will be an asphalt surface in the east by Keirallan, east of the B8033. The road will be an unbound type 1 surface west of the B8033 and the compound area.

The track will facilitate construction traffic for SSEN Transmission contractors and employees only and will be fenced off, with gate-controlled access. A controlled crossing point will be required on the B8033.

Activities so far

Design work and surveys have been progressing throughout 2024 and into 2025. This has included walkover surveys, flood risk modelling, liaison with bridge suppliers and more recently ground investigation works. All of these activities have helped the project reach 'design freeze', enabling the road position to be finalised and for discussions to commence with landowners. We have also commenced the assessment work required to facilitate the planning submission of the haul road to Perth and Kinross Council. Our consultants are developing a landscape and habitat management plan which will facilitate landowner discussions on the screening proposals.

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07879 793 652
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Feedback

The first consultation event for the haul road was held at Braco Village Hall on 20 November 2024. There was a total of 70 attendees. During the six-week feedback period which ended on 8 January 2025, 24 responses were received specific to this application.

Many of the responses requested further information on the design, visual and landscape impacts, the environment, construction and traffic volumes, and transport assessments. We have looked to summarise this feedback to best answer queries that relate to the haul road. We have not included items that relate to the substation itself, as this was covered in previous and separate consultation events.

Some of the responses posed general questions covered in our Frequently Asked Questions (FAQ) page and additional handouts such as project need, sustainability considerations and compensation. More information regarding these topics and other FAQs can be accessed at: **ssen-transmission.co.uk/2030faqs**

Scan the QR code with your smartphone to find out more about how these policies have been assessed and determined.

We have included both event feedback and statutory stakeholder feedback, as well as design feedback, outlined in the following *feedback banners*.

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Feedback

Event feedback	Response
Access Feedback made around the footpath along the Keir Burn. This is used as part of a circular walk and there are concerns this route could be blocked	During the construction period, as the haul road would form a construction working area for heavy plant, access would not be available to cross the road at the bridge. Signage would be in place to advise of alternative access arrangements. We aim to seek and provide access as far as practicable, which would be confirmed within an Access Management Plan which is anticipated to be agreed with the Council through the discharge of a relevant planning condition. Once construction has been completed, the alternative access over the haul road could be used permanently.
Community benefit Opportunities for community benefit funding shared including provisions for cyclists and pedestrians in the area; funding and compensation; landscaping and replanting; vehicle speeding mitigations.	We'd like to thank residents for providing their feedback suggesting community benefits they would like to see implemented within the local area. While some of the suggestions are outside of the scope of the project to deliver, it is our intention to work with the community to further explore opportunities in this area. This feedback has been noted and when it is appropriate to do so, will be considered by our construction team, contractors and our community benefit fund team. Our network in the north of Scotland will play a leading role in the clean energy transition, connecting and transporting renewable electricity from wind, hydro and marine generation. Our Community Benefit Fund will allow a share of the benefits to go directly to those communities that we work in. Our Community Benefit Fund is designed to bring substantial benefits and a positive, lasting legacy through local and regional initiatives across the north of Scotland. Following a UK Government announcement in November 2023 regarding community benefits from transmission infrastructure, SSEN Transmission anticipates the value of future community funds from our current investment plans to be in excess of £100m. This is subject to finalised Government guidance and approval from Ofgem and will apply to all new transmission infrastructure projects in Great Britain. We have two types of funds open to projects in our network area which not for profit, constituted groups can apply for. Our regional fund is open for any organisation in our network area with a strategic project that brings benefits under one our identified themes. Our local funds are for communities closes to our new infrastructure. The first £2m round of our regional Community Benefit Fund received 328 applications seeking grants from £40,000 to £500,000. We funded ten projects across our region and details of the projects can be found on our website at ssen-transmission.co.uk/community benefit. Based on feedback from our public consultation held in 2023, the fund will continue to provide support for strategic projects in the region and any successful application must meet one or more of the following themes: People: Focusing on skills, training and employability; Place: Emphasising the community and culture of the north of Scotland; and Alleviating fuel poverty: Looking at strategic ways to help people across the region. These themes should be reviewed in the context of a strategic fund, with the view of maximising impact to the north of Scotland. Local funds in anticipation of expected UK Government guidance on Community Benefit funding for electricity transmission infrastructure, we are launching four preliminary local funds connected to projects recently completed or currently under construction. These funds will vary to reflect the different priorities, needs and wishes of the local communities close to the transmission project. Local Community Benefit Funds are for communities close to transmission infrastructure, and we will work with those communities to design a fund that can have a positive local impact. We will use independent panels to make decisions allocating funding and will support communities to make best use of the funding opportunities. You can find out more about the communities that have already benefited from our community benefit funding by going to our website at: **ssen-transmission.co.uk/communitybenefit**
Drainage Residents highlighted existing drainage problems in the area and were asking how we plan to mitigate any further flooding with the proposed work planned.	We are aware there are existing flooding issues within the area. The Proposed Development connects to the A822 and B8033. It is noted that in the existing scenario, both of these roads appear to be at risk of flooding in close proximity to the Proposed Development, based on the baseline fluvial flood risk hydraulic modelling. The Proposed Development is located within an area which is at 'high risk' from fluvial flooding. Mitigation measures have been proposed for fluvial and surface water flooding. Fluvial flood mitigation measures have been proposed to replicate existing flooding mechanisms across the modelled area. As there is an increased impermeable surface area, a drainage impact assessment for the Proposed Development has been developed to establish an acceptable method of disposal of surface water. The drainage impact assessment will also be provided as part of the planning application.
Environment Feedback around maximising habitat enhancement proposals around the haul road. Tree planting, shrub planting, returning to non-managed land etc.	The planning application will include a Biodiversity Net Gain (BNG) assessment which will demonstrate how the SSEN Transmission commitment of a 10% minimum BNG will be achieved. A landscape and habitat management plan will be included in the Environmental Appraisal and will set out our proposed planting plan. The proposed planting will take into account habitat enhancement, BNG, compensatory tree planting, screening and landowner requirements.

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Feedback

Event feedback	Response
Environment Feedback has been received on wildlife in the area, including pine martin and beavers present around the area of works.	Ecology surveys have been completed, and an ecology assessment will be included in the Environmental Appraisal (EA) which will be submitted as part of the planning application. The EA will be publicly available to review apart from any confidential information relating to protected species. The ecology assessment will consider the potential effects (if any) on protected species, and identify any mitigation required. The presence of beavers has not been recorded to date within the survey areas. Where sensitive habitats and species are present, we will seek to avoid them wherever possible, but where unavoidable, suitable mitigation measures will be identified and agreed in consultation with the Planning Authority, NatureScot and any other relevant statutory consultee.
Environmental protected areas and protected species Comments in relation to effects on protected areas including Special Protection Areas (SPA's), Special Area of Conservation (SAC) sites and Sites of Special Scientific Interest (SSSI) were received from NatureScot. NatureScot advised it considers the Proposed Development will not have any adverse effect on site integrity of any protected area sites. NatureScot advised its standing advice in relation to protected species surveys, mitigation and licensing should be referred to for further information, and that all survey work for protected species should be undertaken in line with the best practice guidance outlined on its website.	We note the comments from NatureScot that it considers the Proposed development will not have any adverse effect on site integrity of any protected area sites. The environmental surveys completed to date have followed best practice. The results of these surveys and the assessment will be presented in the EA, alongside the methodology, and will be submitted as part of the planning application. The EA will identify appropriate mitigation to reflect the outcome of the assessment and will be in line with NatureScot standing advice.
Flooding Feedback has been made about the haul road being built on a flood plain and concern around flooding from the Keir Burn.	We acknowledge the haul road is located within the flood plain of the Keir Burn. An extensive flood risk assessment, including detailed modelling, has been carried out. An iterative process has been applied to establish appropriate mitigation options and their suitability for inclusion as final mitigation measures to address the flooding impacts observed as a result of the Proposed Development. The mitigation measures in the form of flood culverts and modification of an existing flood embankment downstream of the proposed haul road are proposed. It has been demonstrated that the Proposed Development is not at risk of flooding or that the Proposed Development is likely to lead to an increase in flood risk elsewhere.
Historic environment Comments in relation to the historic environment were received from Historic Environment Scotland (HES). It advised HES does not consider there would be any significant setting impacts from the Proposed Development.	A cultural heritage assessment will be included in the EA and will be submitted as part of the planning application. This will set out surveys undertaken and an assessment of effects on cultural heritage assets.
Landscape/visual/ screening Concerns were raised about the visual impacts from the haul road, including the compound areas and construction traffic along the haul road.	The proposed layout for the development will be shown at our consultation event. The layout will show a mix of temporary and permanent screening measures that will be put in place to ensure that the visual impacts from the haul road are reduced.

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Feedback

Event feedback	Response
Noise Feedback on noise from construction period and haul road traffic.	We recognise that noise impacts during construction will be a concern to residents. A Noise Assessment has been concluded to support our planning application. along with our embedded mitigation the design includes the installation of four noise barriers, with two of these situated near properties on the haul road. These barriers will be in place during the construction phase of the full substation construction programme. The EA (which will include details on the background noise monitoring and noise assessment) will be publicly available when the application is submitted to the Planning Authority. A Construction Environmental Management Plan (CEMP) will be produced that will detail the mitigation and management measures required to minimise environmental impact from the construction phase of the development. The CEMP forms a framework within which the measures will be implemented throughout the project.
Presented proposals Requests were made for our visual consultants 3DWebtech to provide further detail at our next consultation event. This included using a wider area of model coverage, inclusion of fences, gates, temporary compounds, landscaping etc.	Our visual consultants will be present at the event to show the latest plans. These will include the majority of the key components of the haul road during construction and also during the construction of the substation. A video flythrough will also be available at the consultation and online, as part of the virtual consultation room. The video flythrough will also show the haul road after the substation construction has completed.
Road surfacing Requests have been made to challenge why we are not using a tarmac surface for the full haul road design.	The road will be an asphalt surface in the east by Keir Allan, east of the B8033 and either side of the B8033 crossing. Along the western section of the haul road from the compound area, the surface will be an unbound Type 1 surface. Where tarmac has been included in the design (rather than Type 1), this has been for technical requirements for the road to meet our engineering standards and specifications. We understand the concerns around the use of Type 1 material full mitigation measures will be outlined in the construction environmental management plan (CEMP) to minimise impacts during construction.
The bridge Request for more information on the bridge and a request that it be left in situ after completion	In order to have a fully connected haul road, a bridge is required to cross over the Keir Burn. The bridge will be removed after construction. On the *imagery banner,* further images can be found for the bridge.
Third party use of the haul road Feedback around third-party users and developments (including battery storage sites), and whether they can use the haul road to reduce construction traffic through the village	We are in the process of securing access rights over the haul road. We will not own the haul road, therefore, it would not be within our gift to grant access over the haul road to third parties during or following the construction of the substation. Post substation construction, the temporary bridge will be removed.
Traffic management and construction Feedback received around the construction and sequencing of the haul road, including timings and locations. Requests also made to confirm the working times and vehicle numbers expected. Comments made in objection to weekend working.	The construction programme for the haul road will be approximately 12 months in duration, with works taking place across the entirety of the haul road, rather than a sequential approach. This option reduces the construction timescales and subsequent impact on the local village. Further details on the above can be found on *The Construction Detail* banner under traffic management. Construction activities would in general be undertaken during daytime periods. Working hours are currently anticipated between approximately 07.00 to 19.00 Monday to Friday, 08.00 to 13.00 on Saturdays year round. These are standard construction working hours, Perth and Kinross Council will have the opportunity to review and comment on these.
Wheel wash facilities Feedback around the location of the proposed vehicle wash, and questions raised about how it may impact existing drainage problems in the area, how noise and pollution may affect local residents and the environment.	The water will be sourced from bowsers on site, and it will be removed via drainage ditches and swales leading to the road crossing. The water will be discharged at a rate that will not impact the existing drainage arrangement. Should the road crossing at the B8033 need to be cleared to facilitate the flow of water, our contractors will arrange for this to be happen. On the *imagery banner,* we have shown a representative example of a standard industry wheel wash.

BDUP@sse.com
07879 793 652
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