

# Argyll and Bute Region

## Information Sharing Webinar

10 May 2022



**Scottish & Southern**  
Electricity Networks

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TRANSMISSION

# Agenda

## Topic:

Welcome & Introductions

SSEN Transmission & The Pathway to Net Zero

Development Projects  
(Inc. the Argyll and Kintyre 275kV Strategy)

Recent & Ongoing Construction Projects

Keeping Connected

Facilitated Q&A

## Speaker:

Greg Clarke – Head of Corporate Affairs Transmission

Christianna Logan – Director of Customers and Stakeholders

Dougie Hill – Senior System Planning and Investment Engineer  
Russell Stewart – Regional Development Project Manager

Ian Clark – Lead Delivery Project Manager

Greg Clarke – Head of Corporate Affairs Transmission

Greg Clarke – Head of Corporate Affairs Transmission

# Handling feedback and information



Everybody in SSEN Transmission works hard to encourage and demonstrate transparency around our projects, proposals and plans. All information and content in today's presentation, provided by us, can be shared with others outside of this engagement.

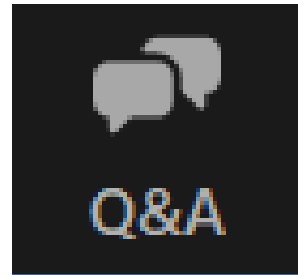


However, feedback gathered during today's engagement will not be associated with you specifically. As one of our contributing stakeholders, we may publish your feedback in any reports or submissions we subsequently produce, **but we will anonymise this**. Instead of quoting specific stakeholders, we will describe the origin of feedback using broad categories, such as "Local Resident" or "Landowner" as examples. We will also take care to avoid 'jigsaw identification'.

**Thank you in advance for your honest feedback and constructive participation.**

# Ask a Question

To submit questions, click the Q&A button:



Then, type your question in the box below, and press send.

*Your question(s) will only be seen by the SSEN Transmission team.*

Type your question here...

Cancel

Send

# SSEN Transmission & The Pathway to Net Zero

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Christianna Logan

Director of Customers and Stakeholders, SSEN Transmission



# Who we are: SSEN Transmission

- Maintain and invest in the high voltage 132kV, 220kV, 275kV and 400kV electricity transmission network in the north of Scotland
- License area extends over a quarter of the UK's land mass, crossing some of its most challenging terrain
- Develop critical national infrastructure which is essential to deliver net zero and supports economic growth
- **5 Year Business Plan to 2026 “A Network for Net Zero”**
- Anticipated investment of £4bn in the five years to 2026\*
- Part of the SSE Group which also includes electricity distribution, renewable and thermal generation

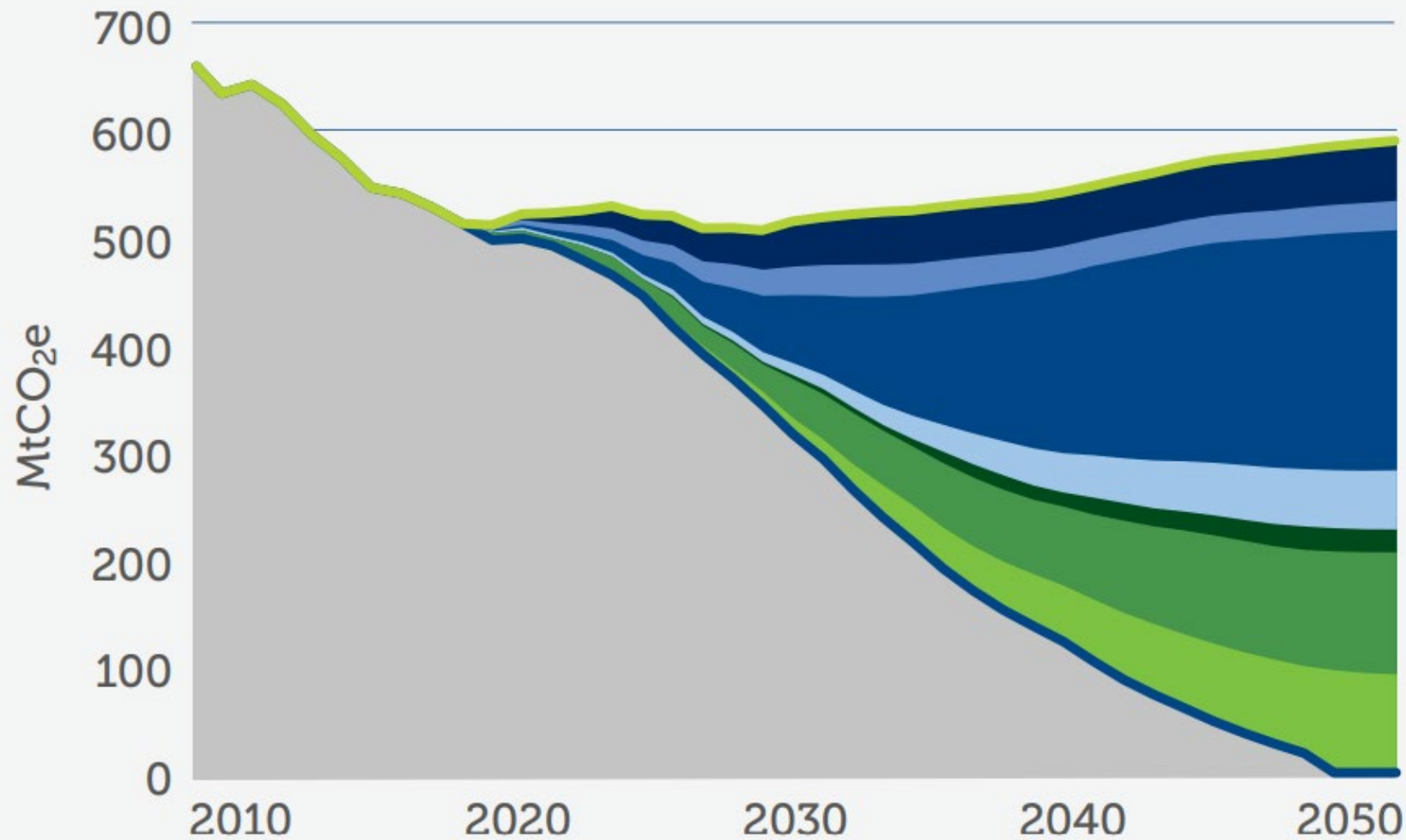
\*subject to regulatory approvals

## Five years Five clear goals

- **Transport the renewable electricity that powers 10 million homes**  
Our RIIO-T2 Certain View will deliver an electricity network with the capacity and flexibility to accommodate 10 GW renewable generation in the north of Scotland by 2026
- **Aim for 100% transmission network reliability for homes and businesses**  
By investing in new technology and ways of working, when cost effective for customers to do so, we will strive for 100% transmission network reliability for homes and businesses by 2026
- **Every connection delivered on time**  
By 2026 we will provide every network connection, tailored to meet our customers' needs, on time, on budget and to our customers' satisfaction
- **One third reduction in our greenhouse gas emissions**  
Reduce the controllable greenhouse gas emissions from our own operations by 33% by 2026, consistent with a net zero emissions pathway
- **£100 million in efficiency savings from innovation**  
Our RIIO-T2 Certain View includes £100 million of cost savings through productivity and increased innovation, and we aim to go further to save more

# Getting to Net Zero

The critical contribution from energy generated in the north of Scotland



- Reduce demand
- Improve efficiency
- Low carbon solutions: electrification
- Low carbon solutions: hydrogen and other low carbon technology
- Low carbon solutions: CO<sub>2</sub> capture from fossil fuels and industry
- Produce low carbon energy
- Offset emissions using land and greenhouse gas removals
- Outturn and baseline
- Balanced Net Zero Pathway



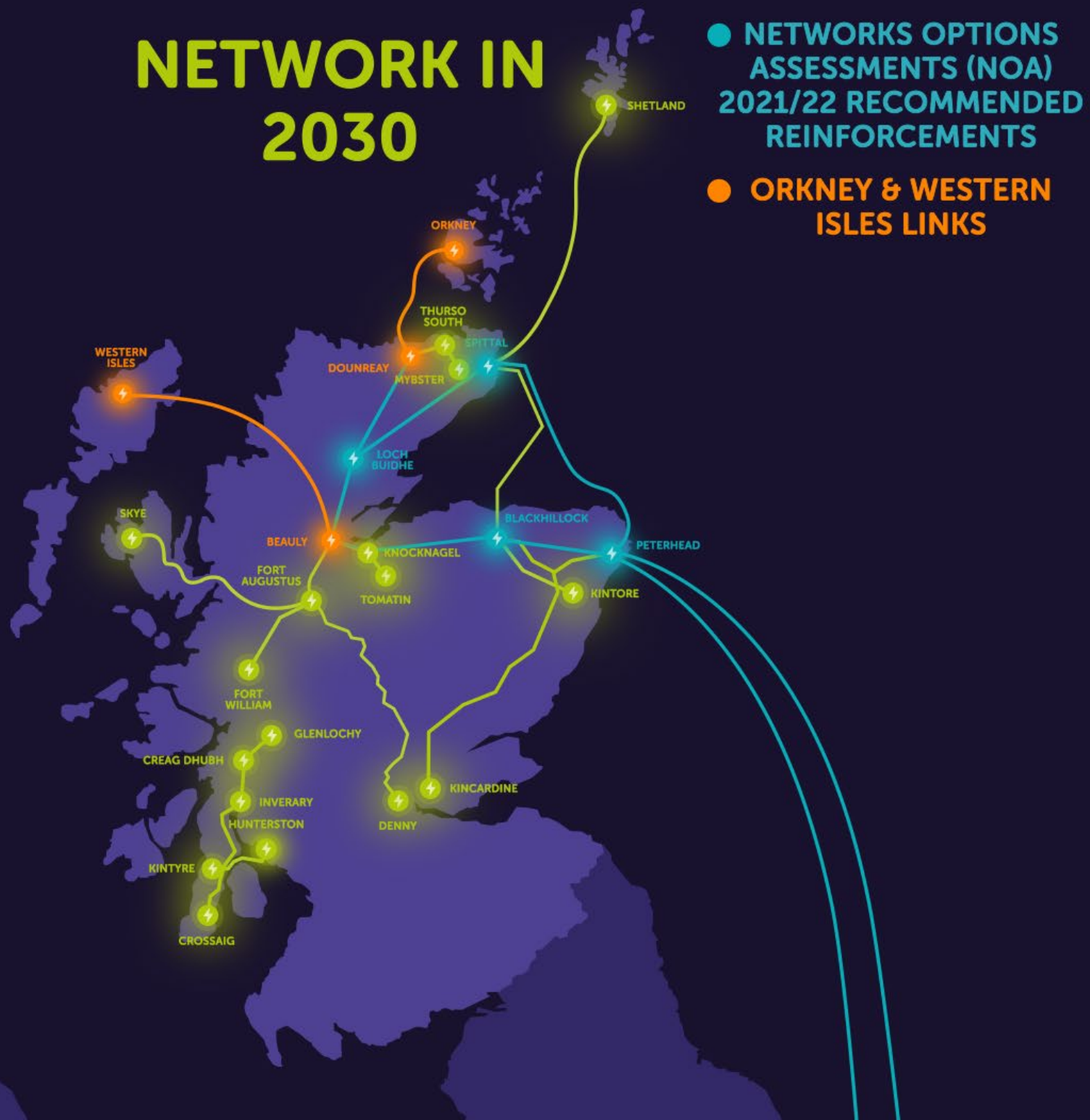
Source [Getting to Net Zero: the critical contribution from electricity generated in the north of Scotland](#), SSEN Transmission, November 2021



# NETWORK IN 2026



# NETWORK IN 2030



● NETWORKS OPTIONS  
ASSESSMENTS (NOA)  
2021/22 RECOMMENDED  
REINFORCEMENTS

● ORKNEY & WESTERN  
ISLES LINKS

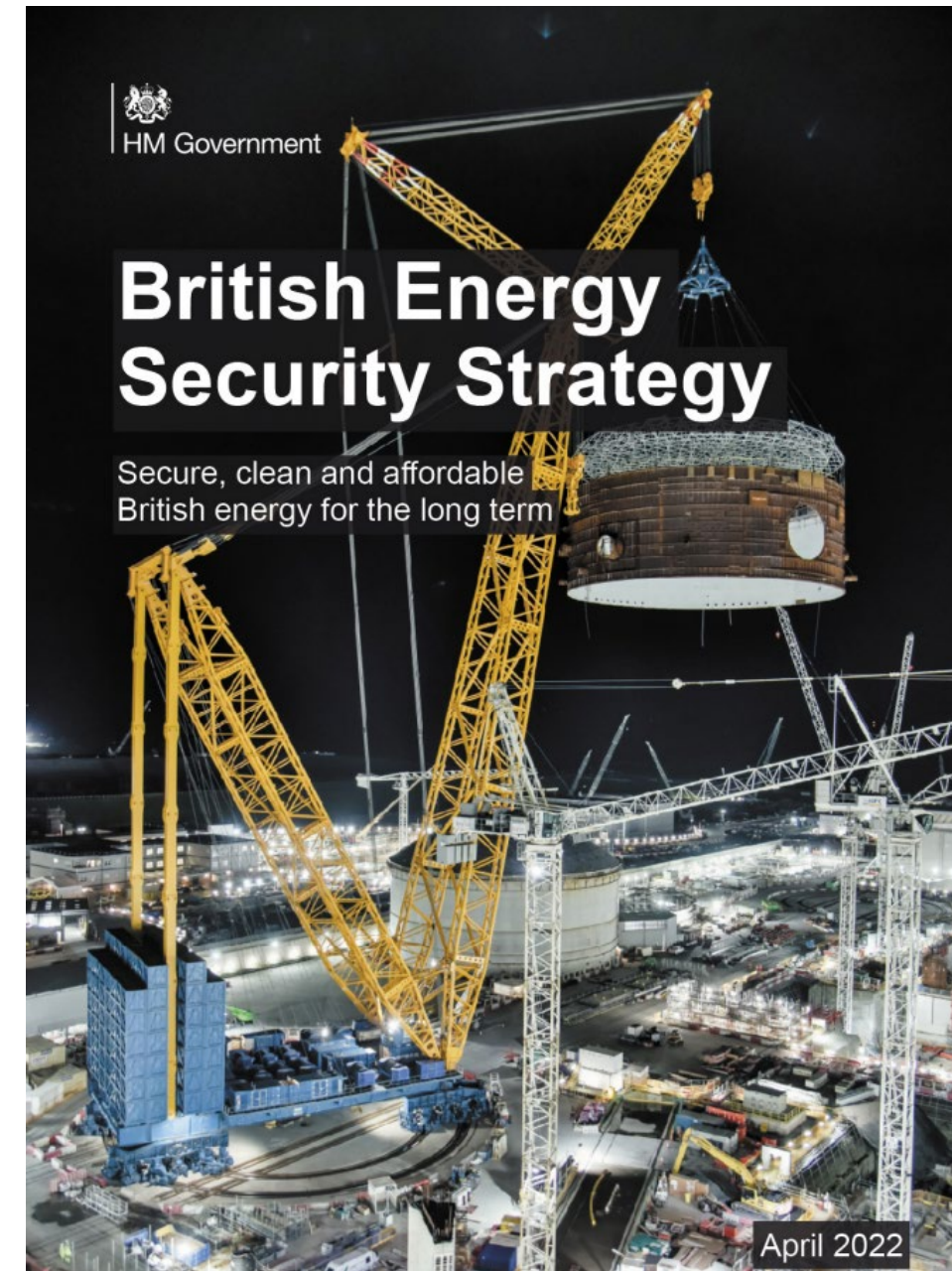


# UK Gov British Energy Security Strategy

The UK Government's Energy Security Strategy confirms the requirement for accelerated and timely investment in the GB transmission network to support Net Zero and energy security goals.

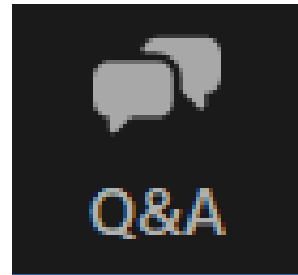
Some of the actions that UK Government have proposed in the strategy are:

- Working with developers and the supply chain, we will **increase pipeline visibility** and certainty to help accelerate procurement timelines. And we will work with Ofgem to speed up connections to the local distribution networks
- Dramatically reducing timelines for delivering strategic onshore transmission network infrastructure by around three years. We will work with Ofgem, network operators and the supply chain to find further savings, for example in the procurement, manufacture and construction stages. **Overall, we aspire to halve the end-to-end process by the mid-2020s.**
- Ensuring that **local communities can benefit from development** of onshore infrastructure in their area, we will consult on community benefit options.



# Any Questions?

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Cancel

Send



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# Development Projects Including the Argyll and Kintyre 275kV Strategy

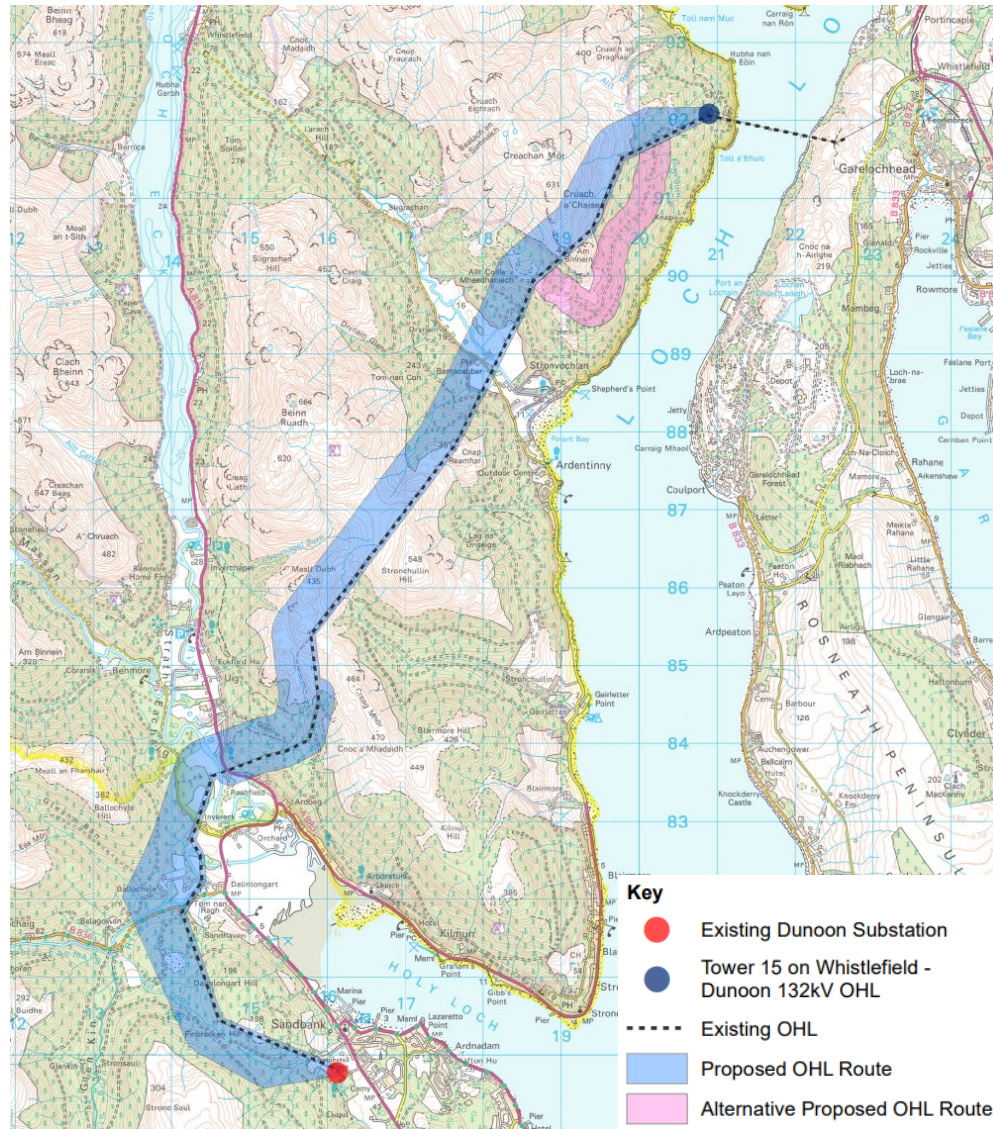
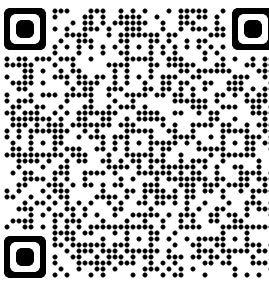
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Russell Stewart - Regional Development Project Manager

Dougie Hill – Senior System Planning and Investment Engineer



# Dunoon Overhead Line Rebuild



## Scope

- Due to current asset condition and requirement to intervene because of fault issues on these circuits, SSEN Transmission are progressing the Dunoon Overhead Line Rebuild
- Construction of approximately 16 km of new 132kV overhead line from North of Ardentinnny to Dunoon Grid Supply Point (GSP) located near Sandbank
- Reconductoring of the Loch Long crossing
- Decommissioning/removal of the existing 16 km of 132kV overhead line from Ardentinnny to Sandbank

## Work to Date

- Consultation with statutory and public stakeholders was held in Nov 2020 and Aug 2021 (virtual)
- We will continue to work closely with local stakeholders prior to determining our final preferred alignment and submitting our planning application later this year
- A pre-application information sharing event will take place in June 2022
- Following the submission, formal representations can be made

Pre-Application  
Consultation  
June 2022

Planning Application  
Submitted  
Late Summer 2022

Construction Start  
Spring 2024

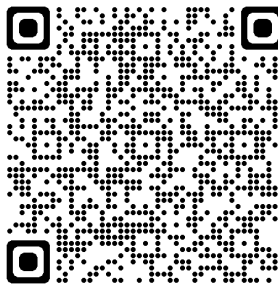
Works Complete  
Late 2026

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# Sloy Power Station Transformer Replacement Project



## Scope

- Transmission assets reaching end of working life to be replaced
- Includes new substation near the existing one at the power station - comprises 4 new grid transformers with associated 132kV circuit breakers and 11kV infrastructure
- Tower and gantry works required for connection to the existing overhead line - 11kV cables to be installed to connect back to the power station from the new substation location
- Removal of existing grid transformers and associated equipment at the existing substation

## Work to Date

- Identification of 6 potential sites- consulted on in late Summer 2021
- Once a preferred site has been determined, further public consultation will be held
- Engagement with stakeholders remains ongoing (including SSE Renewables who own the power station and surrounding land)



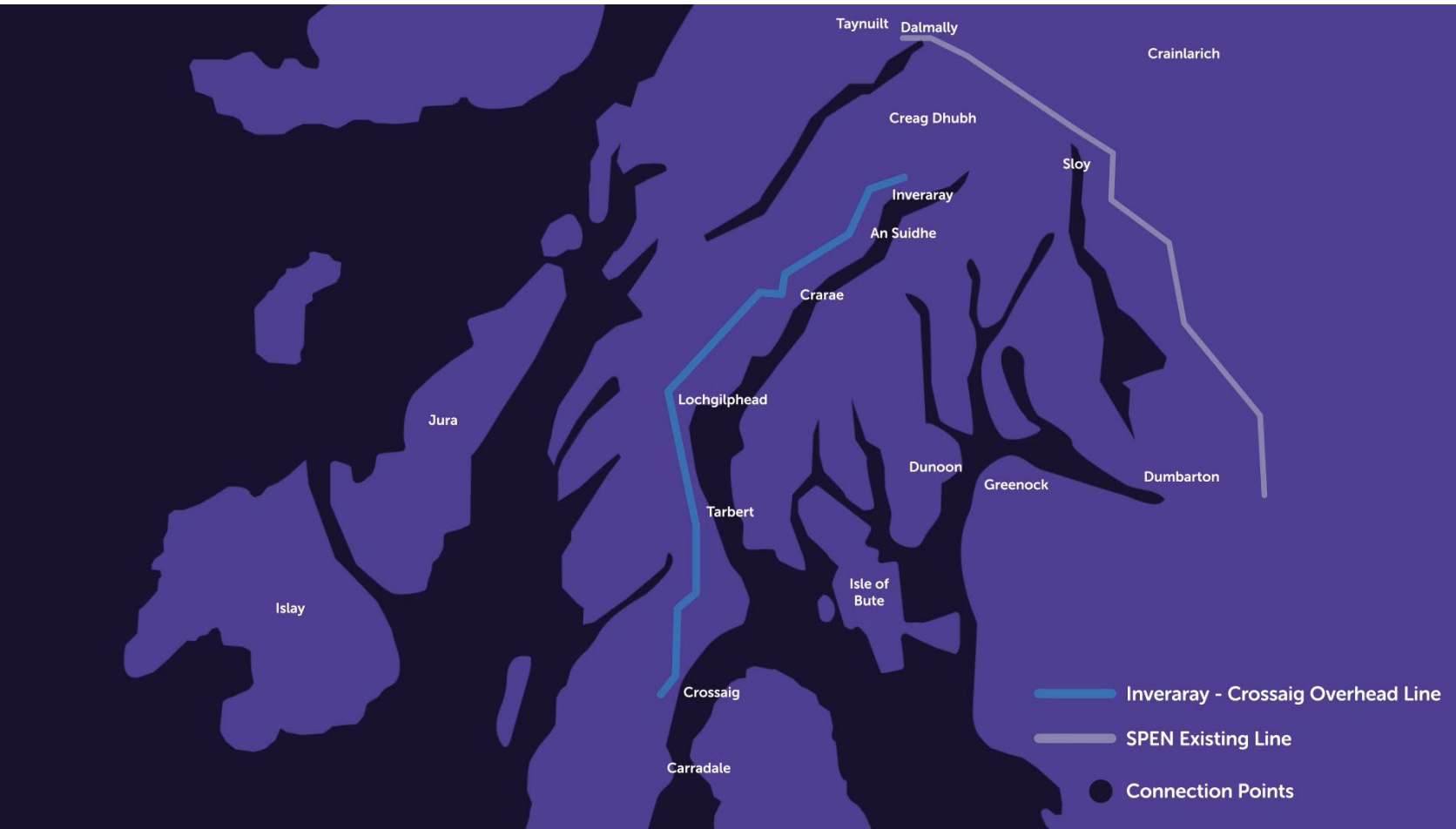
Pre-Application  
Consultation  
Autumn 2022

Submit Planning  
Application  
Late 2022

Construction Start  
Spring 2024

Project Completion  
Spring 2026

# Argyll and Kintyre 275kV Strategy - Scheme Scope



## Creag Dhubh – Dalmally 275kV Connection

Establishing a new substation at Creag Dhubh connected by c. 14km of new Overhead Line to SP Energy Network's (SPEN) Dalmally – Windyhill 275kV Overhead Line

## Creag Dhubh – Inveraray 275kV Overhead Line

c.10km of new Overhead Line between Creag Dhubh and a tee point on the existing Inveraray-Crossaig Circuits

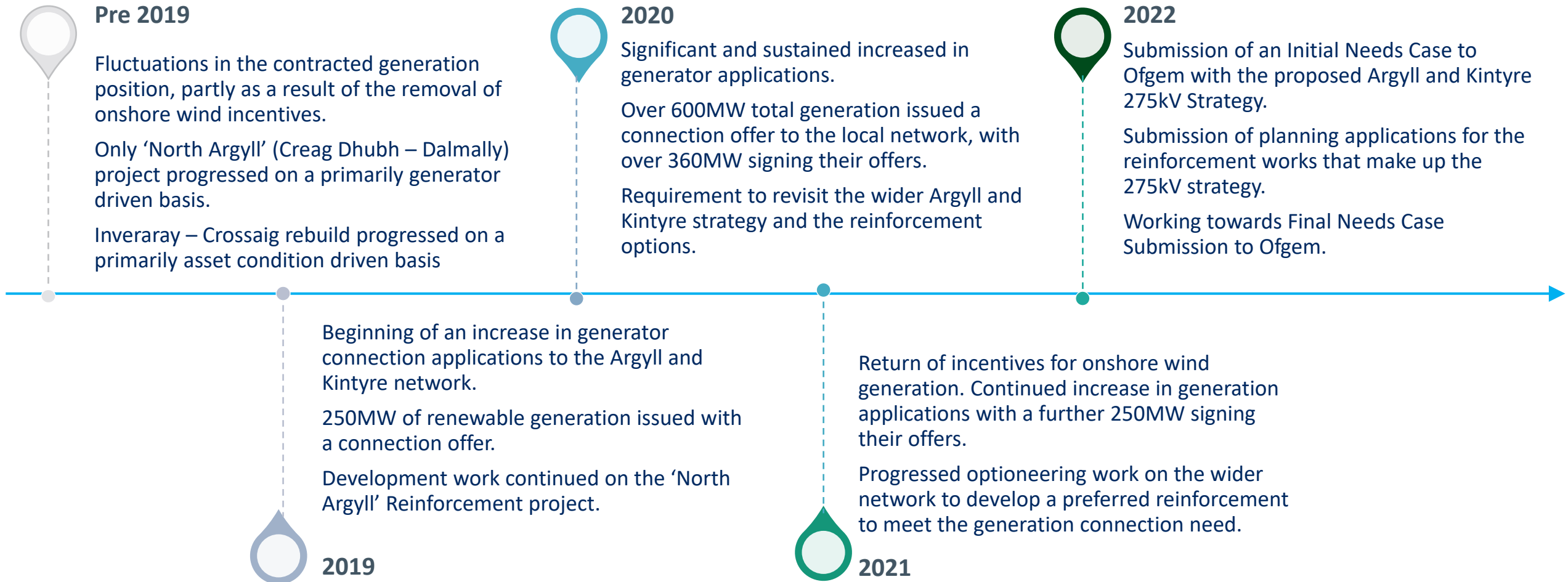
## Argyll and Kintyre 275kV Substations

Construction of new substations at:

An Suidhe  
Crarae  
Craig Murrail  
Crossaig North

Our preferred option is **supported by the Electricity System Operator (ESO)** and based on a number of criteria including; net zero, system planning criteria, efficient delivery and safe operation, cumulative impact on the environment and society and generator requirements

# Argyll and Kintyre – Background

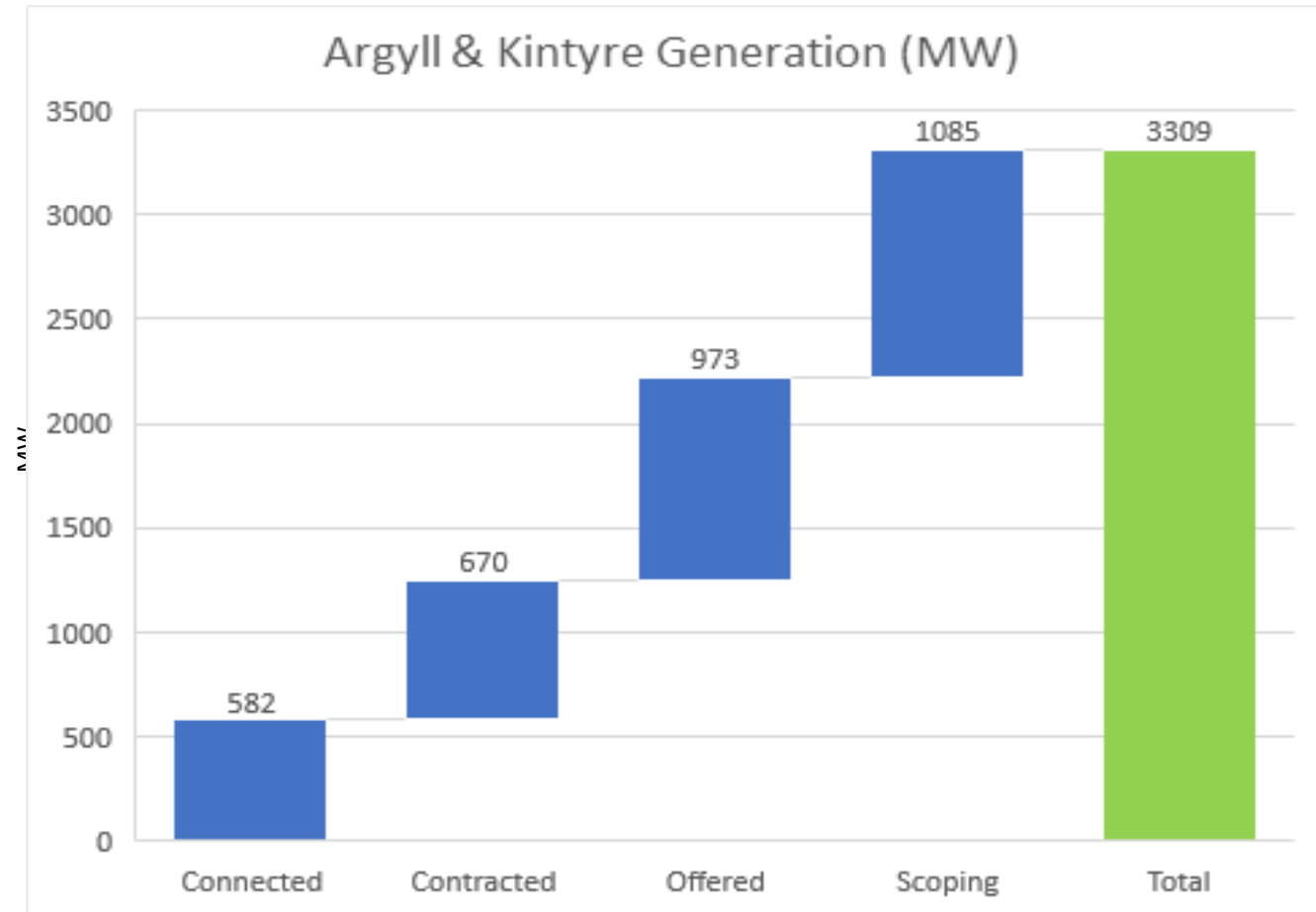


# Argyll and Kintyre – Need for Reinforcement

- Since October 2019, 612MW of onshore wind has contracted to connect, bringing total contracted to 670MW
- Capacity of existing Transmission network is insufficient to accommodate current contracted generation

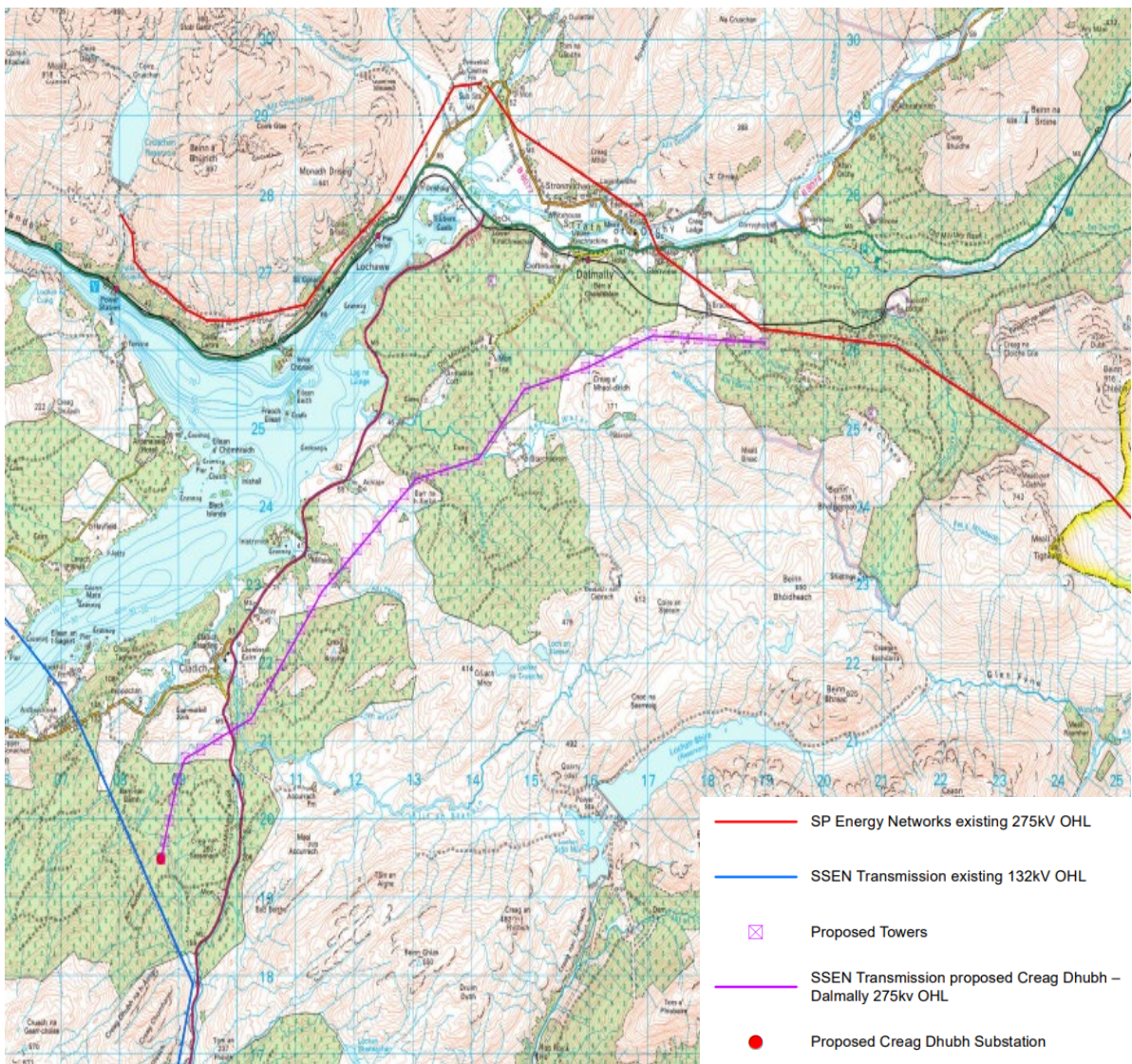
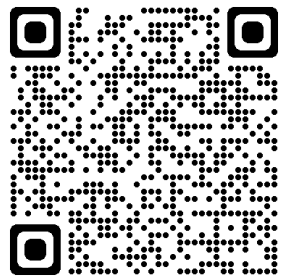
## Long term need

- Over 1800MW of scoping generation was identified through pre-app meetings and a developer webinar hosted by SSEN Transmission in April 2021
- Developed localised generation scenarios working with National Grid ESO and engaging with our regulator Ofgem
- Localised Future Energy Scenarios (FES) were utilised in the economic analysis and the power system studies





# Creag Dhubh – Dalmally 275kV Connection



## Scope

- Consists of a new 275/132kV Substation to be located at Creag Dhubh
- A new 275kV Overhead Line to link Creag Dhubh to the existing Scottish Power Transmission Dalmally-Windyhill 275kV Overhead Line, near Succoth Glen

## Work to Date

- Extensive consultation since 2016 has led to significant changes in the project's design, taking account of stakeholder feedback
- By taking an alternative route to that initially proposed, the number of properties within 500m of the line has reduced by 85%
- Section 37 and Town and Country Planning Applications have now been submitted and will soon be subject to statutory consultation
- A full overview video is available on the project webpage
- A public information sharing session will be held **16<sup>th</sup> June at Dalmally Community Centre** where you can meet the team and discuss our applications

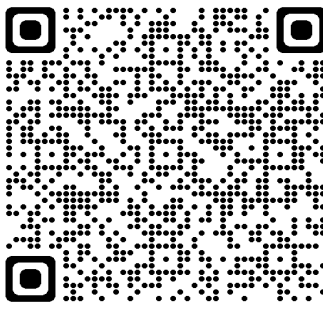
Planning  
Application  
Submitted  
April 2022

Construction Start  
January 2024

Completion  
April 2026



# Creag Dhubh to Inveraray 275kV Overhead Line

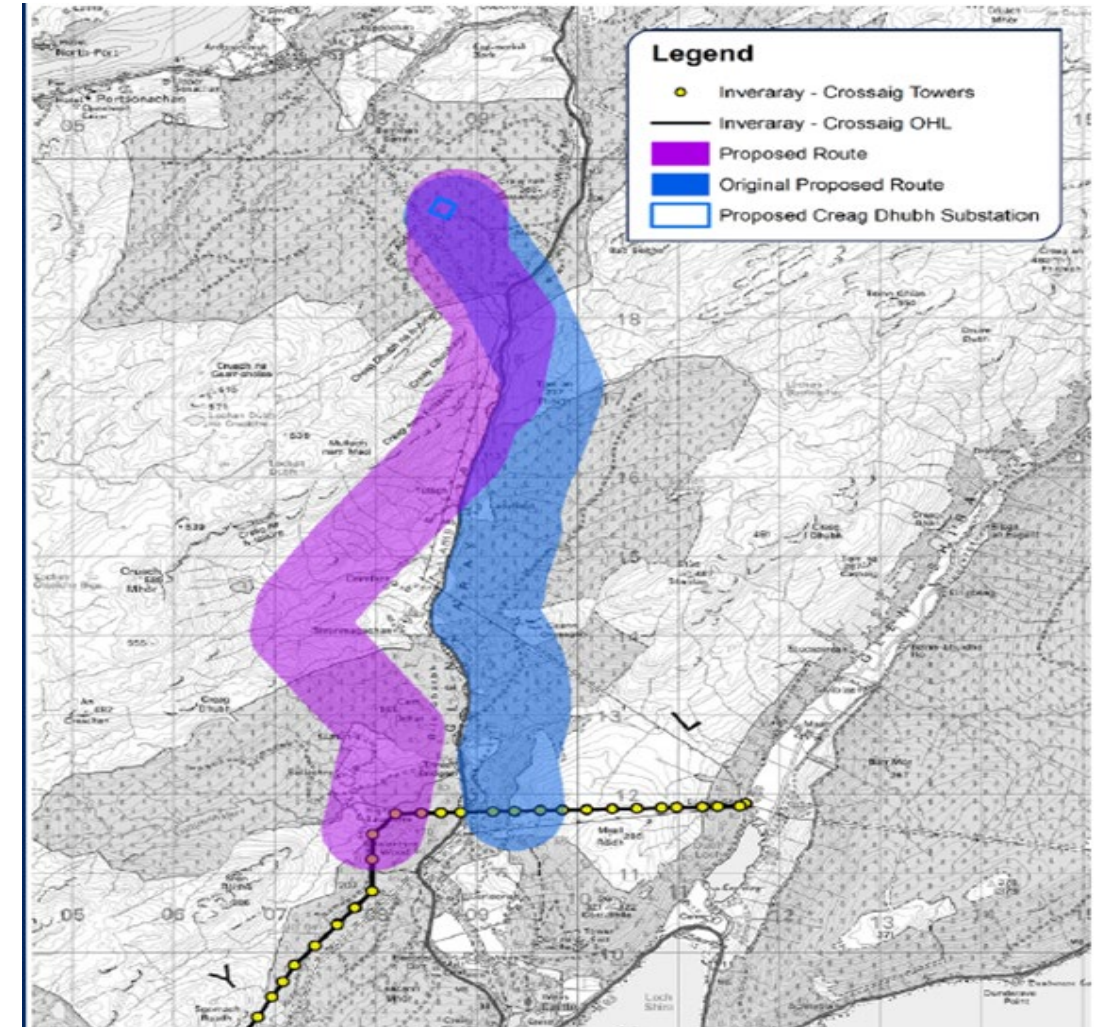


## Scope

- Consists of a new 275kV Overhead Line linking the existing Inveraray-Crossaig Overhead Line to the Creag Dhubh Substation

## Work to Date

- Initial virtual consultation was held in Summer 2021 to share proposed route
- Since then, the detection of UXOs meant a change to the originally preferred route was required
- Statutory stakeholders, landowners and local communities were informed of the requirement for change earlier this year
- In-Person and Online Public consultation will take place on **18<sup>th</sup> and 19<sup>th</sup> May (Loch Fyne Hotel, Inveraray)** and **24<sup>th</sup> and 25<sup>th</sup> May (Online)** to share and seek comment on the preferred alignment within the new route



Planning Application  
Submitted  
Summer 2022

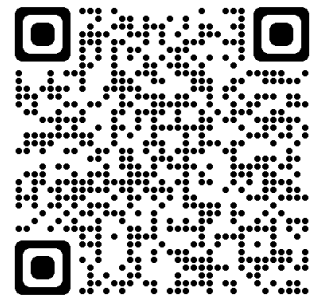
Construction Start  
April 2024

Completion  
April 2027

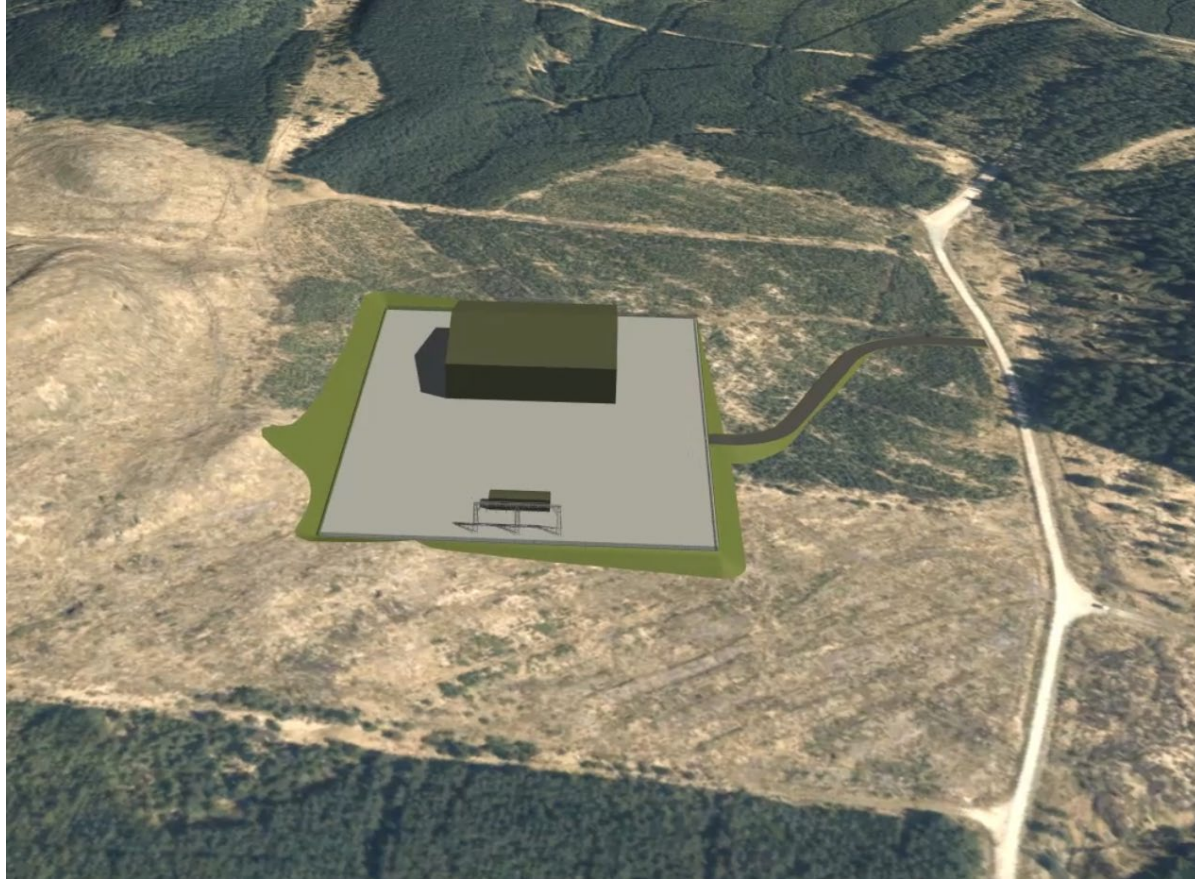
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# Argyll and Kintyre 275kV Substations



## Craig Murrail, An Suidhe, Crarae and Crossaig North Substation



### Scope

- Construction of a new 275kV **Craig Murrail** Substation near Lochgilphead
- Construction of new 275/33kV **Crarae** and **An Suidhe** Substations to maintain existing wind farm connections
- Construction of a new 275/132kV **Crossaig North** Substation adjacent to our existing Crossaig Substation

### Work to Date

- Virtual consultation in Summer and Winter 2021
- Much less engagement from stakeholders in comparison to our overhead line projects
- We therefore invited statutory consultees, community council members and local elected members to discuss our proposals ahead of our planning application process to ensure any questions or concerns were captured (*recording available to view on webpage*)

Planning Application  
Submitted  
September 2022

Construction Start  
February 2024

Completion  
April 2027



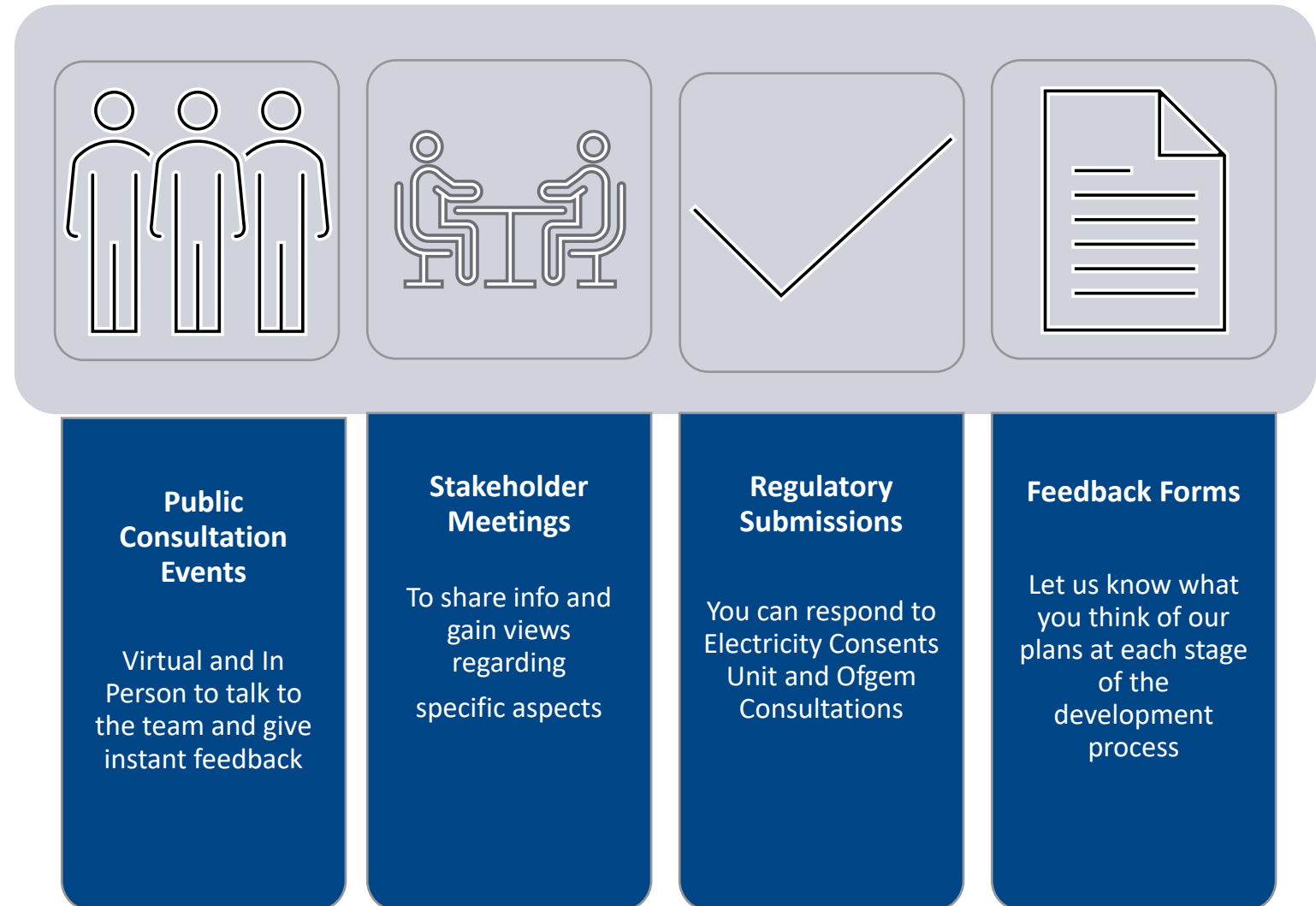
# How to have your say

We continually seek stakeholder feedback during the development process to help shape our proposals.

As a result of the feedback we receive from a variety of stakeholders, we often explore alternative routes, carry out additional surveys, identify potential suppliers and areas for tree planting etc.

Your input allows us to assess options based on stakeholder requirements.

When it comes to submitting planning applications and regulatory submissions, there is also the opportunity to submit formal representations on finalised plans.





# Recent and Ongoing Construction Projects

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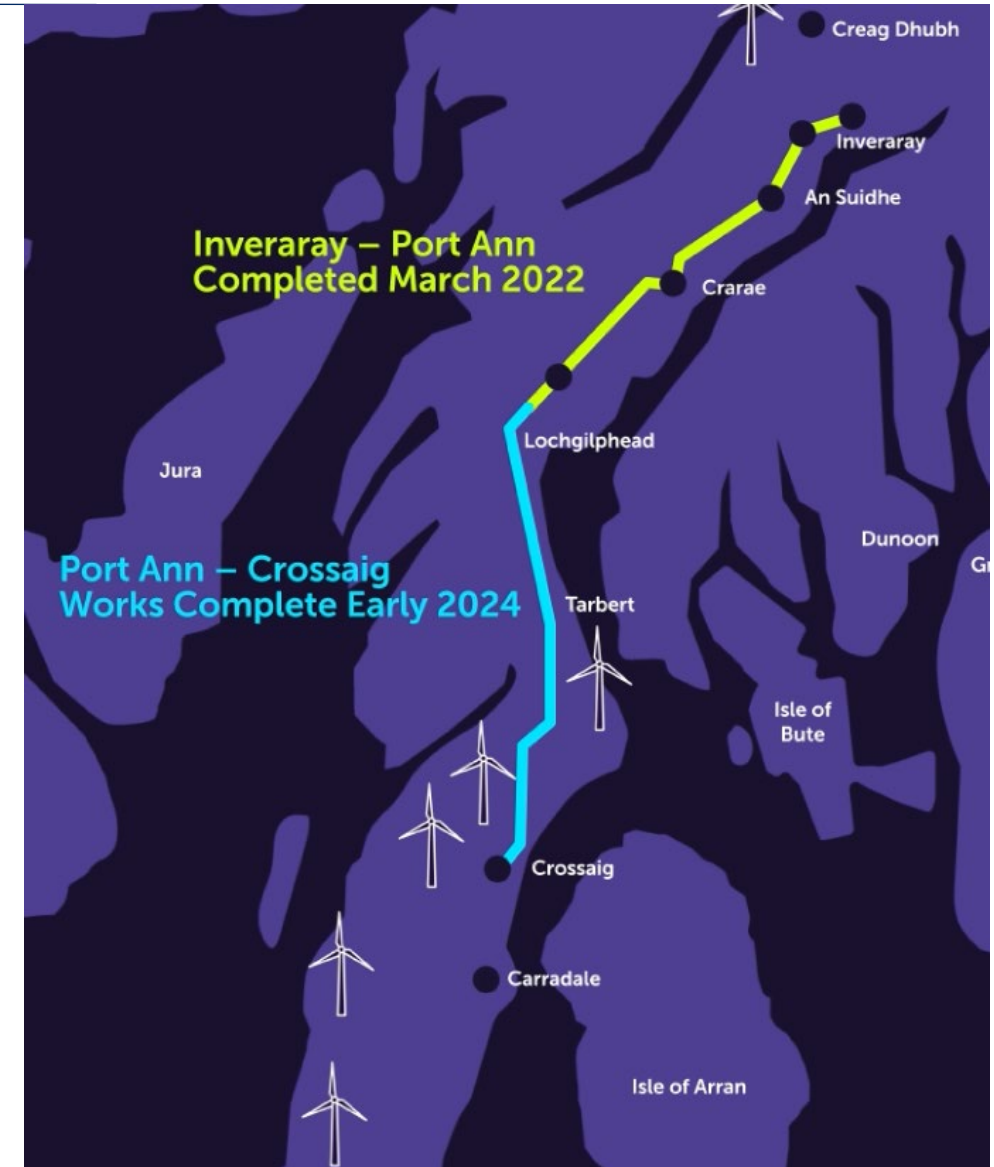
Ian Clark

Lead Project Manager

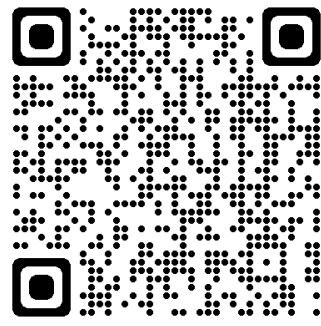


# Inveraray – Crossaig Reinforcement

- Existing lightweight steel towers, conductors and fittings in urgent need of replacement
- Refurbishment was not a viable solution due to the extent of upgrade work required, not only to the conductors but to towers and foundations
- Risk to security of supply would be greatly increased
- Nearby generation schemes need an upgraded network to enable connection
- New higher capacity overhead line provides a secure customer supply and the capacity for additional low carbon generation to achieve net zero



# Inveraray to Port Ann Reinforcement – Phase 1



New 39km overhead line between Inveraray and Lochgilphead completed in July 2021:

- 750,000 man hours invested with a peak workforce of 250
- Almost 100km of new and upgraded access tracks
- Significant increase in reliability of the transmission electricity network

In addition to the more resilient network the project provided:

- Recreational benefit from the new and upgraded tracks
- Investment in the local economy with bed-nights at hotels, B&Bs, holiday parks, etc., custom at local shops and restaurants, etc.



Works Start  
**Autumn 2019**

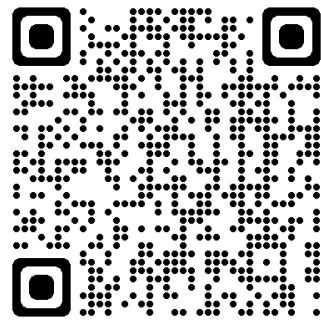
First section energised  
**Feb 2021**

Full energy  
**July 2021**

Works complete  
**March 2022**



# Port Ann to Crossaig Reinforcement – Phase 2



New 45km overhead line between Lochgilphead and Crossaig Substation for energisation in July 2023:

- 149 new steel towers
- 108km of new and upgraded access tracks
- 200-250 people employed on the project at peak

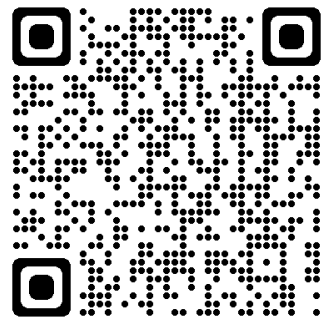


Works Start  
May 2021

Full energy  
Summer 2023

Works complete  
Early 2024

# Port Ann to Crossaig Reinforcement – Phase 2



## Progress Update:

- Removal of 380Ha of forestry is almost complete
- Shipping alternative adopted for the transportation of timber taking over 2,000 timber wagons off the public road
- 108km of new and upgraded access tracks well underway
- Installation of foundations and erection of the new towers has commenced with the first towers being topped out in May.





# VISTA - Glen Falloch and Sloy

(Visual Impact of Scottish Transmission Assets)

- Our policy initiative to assess the impact of existing infrastructure on National Parks and National Scenic Areas and identify effective mitigation proposals
- Ofgem administered fund
- Undergrounding of 7.3km of existing 132kV overhead lines within Loch Lomond & the Trossachs National Park (LLTNPA) was successfully achieved in March 22
- All 26 steel towers will be removed at by the end of April 22
- A planning application has been submitted for the retention of 4 sections of access track to the newly installed cable sealing ends. These access tracks will minimise disruption for future operation and maintenance of the network



Undergrounding  
Completed  
**March 2022**

All towers removed  
**April 2022**

Land reinstatement  
**May 2022**

Access track  
construction complete  
**Summer 2022**



# Sloy – Windyhill (Reconductoring)

- This overhead line was built in the 1950s and requires reinforcement works to ensure security of supply
- This project will upgrade sections of the existing overhead lines between Sloy Switching Station and the network boundary with SPEN towards Windyhill substation
- Towers require strengthening works, upgraded foundations and, in a few cases, replacement.
- We are already working with stakeholders, including Argyll & Bute Council, LL&TNP, landowners and local community members and will continue this during the delivery of this project
- Our webpage will go live later this year

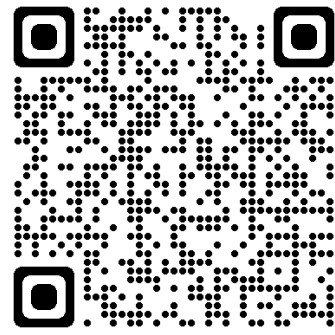


Planning Applications  
**October 2022**

Works Begin  
**April 2023**

Works Complete  
**June 2025**

# Carradale Substation



Required to facilitate renewable generation requests

Involves the replacement of four existing transformers with higher capacity units

3 of the old transformers have now been removed and 3 new ones delivered with the final transformer due Aug 22

Noise enclosures have been erected around the new transformers to protect the community from noise

## Local benefits:

Local community benefit from local hotels, rentals and restaurants to local shops providing much needed business during COVID 19

Additionally, the project has hired 3 local staff and local suppliers have also benefitted

Material, concrete, loose stone, hardcore, tarmac and plant hire are mostly from a local supplier in Campbeltown



Construction  
Commenced  
**Spring 2020**

Final Transformer  
Due  
**August 2022**

Works Complete  
**End of 2022**

# Continued Engagement with Local Stakeholders



**Community  
Liaison Groups  
(CLGS)**



**Working with  
Schools**



**Working with ACT**



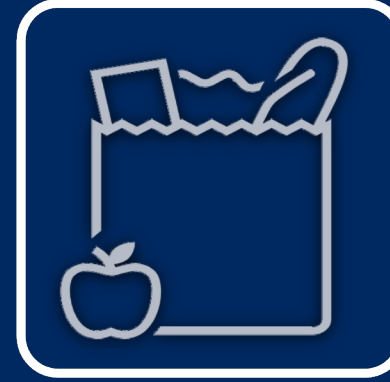
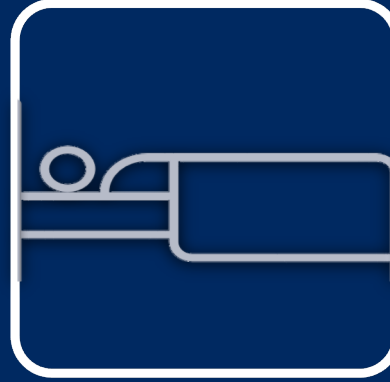
**Local Supply  
Chain**

We aim to form collaborative partnerships throughout the project lifespan, to help effectively resolve any arising issues, provide community benefits and identify opportunities to leave a lasting legacy.

We welcome the opportunity to work collaboratively with local organisations to help maximise opportunities.



# Local Opportunities



At over £220m, the Inveraray – Crossaig Project represents a huge investment in the Argyll region, generating a major contribution to both the local and national economies

Working with our Community Liaison Groups, we've established recreational benefit from the 30km of new and 62km of upgraded access track

Local shops, bakeries, restaurants and takeaways all benefited from increased footfall

With a peak workforce of over 250 staff, there was a need for many local bed nights, not just in local hotels, but in holiday parks, B&Bs and private rentals

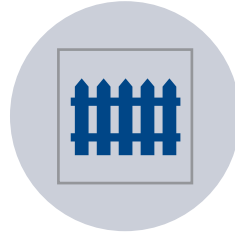
Opportunities for the local supply chain, local contractors and workers

Support to local food banks and charities

# Safety



Our works involve the movement of large vehicles, lifting operations using cranes and excavations



We go to lengths to protect the public including extensive signage and fencing of worksites



Our ask is that everyone follows the guidance on the signage and, if in doubt, contact the site team before entering an area

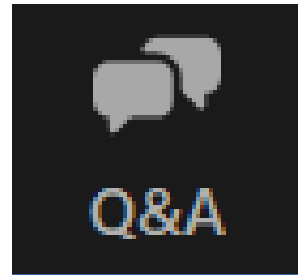


With Covid restrictions lifting, we hope to get back to communicating construction site safety messages in the local schools



# Any Questions?

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Then, type your question in the box below, and press send.

*Your question(s) will only be seen by the SSEN Transmission team.*

Type your question here...

Cancel

Send



# Keeping Connected

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Greg Clarke

Head of Corporate Affairs, SSEN Transmission

# Contact Us



SSEN Transmission generation customer connection enquiries - [transmission.commercial@sse.com](mailto:transmission.commercial@sse.com)



Supply Chain enquiries –  
[transmission.procurement@sse.com](mailto:transmission.procurement@sse.com)



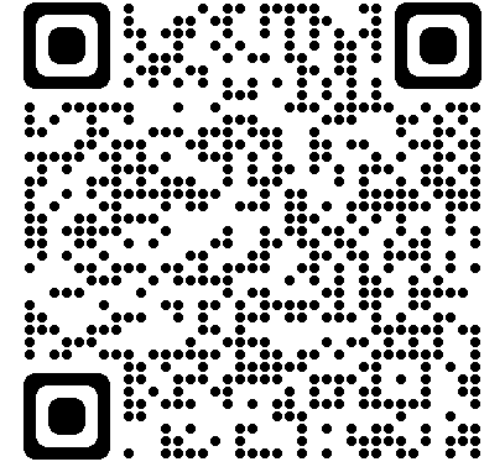
SSEN Transmission Communities & Landowner enquiries –  
<https://www.ssen-transmission.co.uk/>



Any other queries -  
[transmission.stakeholder.engagement@sse.com](mailto:transmission.stakeholder.engagement@sse.com)

Visit our website

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# Upcoming Engagement Opportunities

Date	Engagement	How to get involved
18 - 19 May (In-Person) 24 – 25 May (Online)	<b>Creag Dhubh – Inveraray Pre-Application Consultation (and Blarghour WF Connection)</b>	Visit our online consultation portal or come to one of our events at the Loch Fyne Hotel
16 June (In-Person)	<b>Creag Dhubh – Dalmally Information Sharing Event</b>	Come to Dalmally Community Centre and meet with the team
June	<b>Dunoon Overhead Line Rebuild Pre-Application Consultation</b>	Visit our online consultation portal or come to one of our events
June/July	<b>‘Understanding Argyll and Bute’s Future Energy Ambitions’ Online Generator Seminar</b>	Generators with an interest in the region can register to attend our webinar
Autumn	<b>Sloy Power Station Pre-Application Consultation</b>	Visit our online consultation portal or come to one of our events

## Statutory Consultations

Planning applications for each of the development projects mentioned today are due to be submitted over the course of this year.

Upon submission you will have opportunity to make formal representation to the Energy Consents Unit and/or Argyll and Bute Council.

## Regulatory Consultation

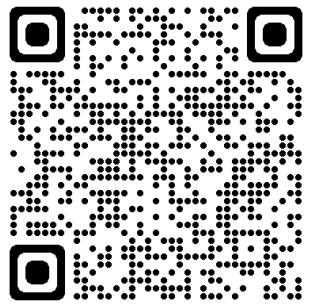
Ofgem will be seeking views on their Initial Needs Case assessment of the Argyll and Kintyre 275kV Strategy this Summer.

You will also have an opportunity to respond to their consultation.



# Growing Our Workforce

Visit the SSE  
Careers page to  
find out more:

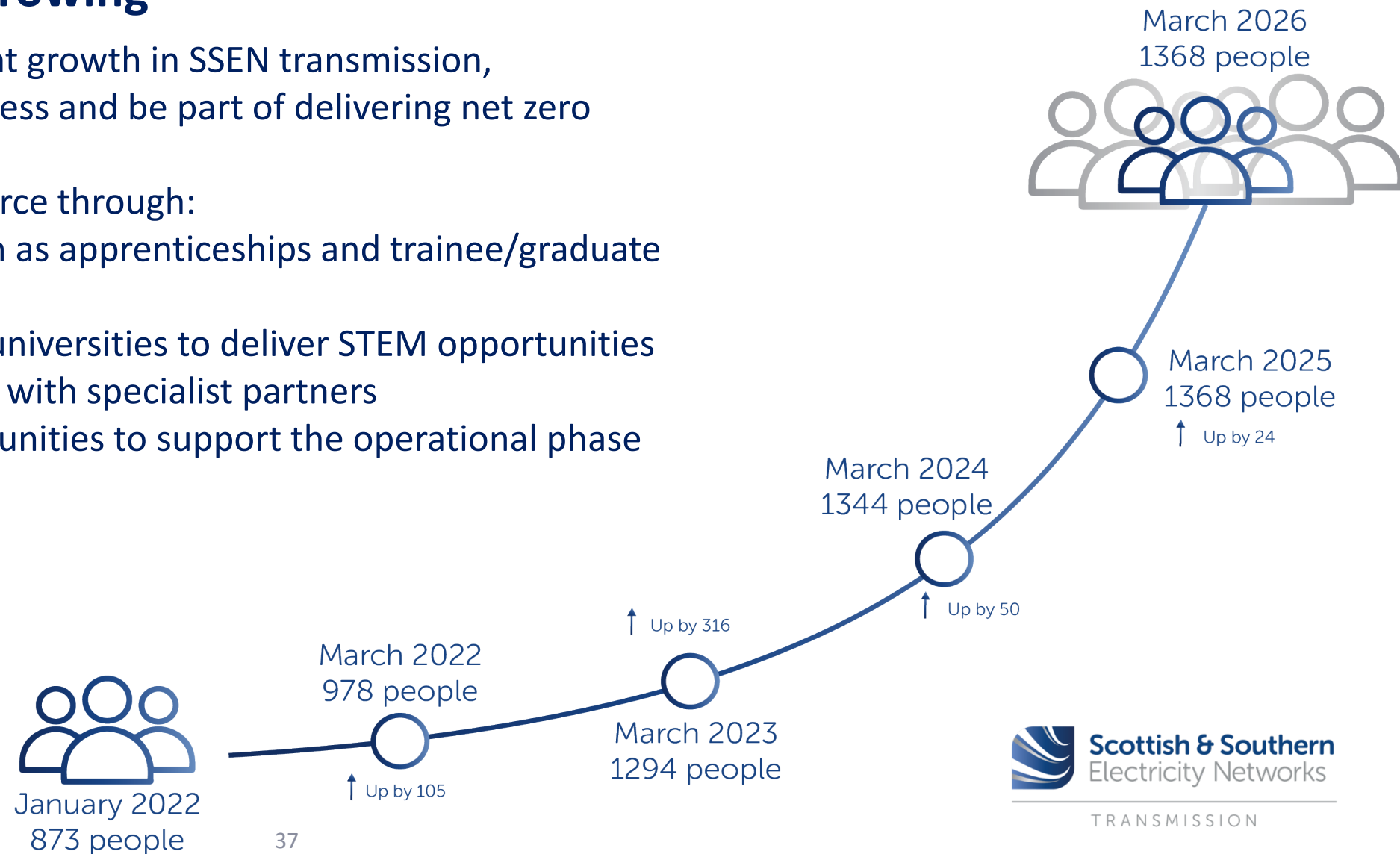


## Our Transmission team is growing

The next four years will see significant growth in SSEN transmission, it's an exciting time to join the business and be part of delivering net zero

We're looking to expand our workforce through:

- 'Earn and learn' placements, such as apprenticeships and trainee/graduate schemes
- Engaging with schools, colleges, universities to deliver STEM opportunities
- Developing pipeline programmes with specialist partners
- Longer term employment opportunities to support the operational phase of the infrastructure



# Sharing your views



On conclusion of this webinar you'll be invited to complete a feedback form

We're keen to discover:

- Your views on the usefulness of this webinar
- If you feel more informed about our plans
- Which subjects you'd like engage on e.g. generator connections, communities, environment, supply chain, net zero policy
- Which engagement mediums you'd appreciate and how frequently you'd like to engage e.g. webinars, newsletters, roundtables, townhalls
- Please supply your contact information if you'd like to be kept informed

**SURVEY PREVIEW**

Start survey

Argyll and Bute – Information Sharing Webinar - Feedback Form

1. How would you rate the quality of today's event?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5

Very poor Neutral Very good

2. Did you find the online format accessible and easy to use?

☐ Yes ☐ No

3. (2 cont.) Please explain your answer:

# Q&A Session

Please submit your questions via the question box



# Thank you for joining us

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A recording of this webinar and the associated slide pack will be available on [www.ssen-transmission.co.uk](http://www.ssen-transmission.co.uk) in the next few days

# Hyperlinks to Project Pages

## Development Projects:

[Dunoon Overhead Line Rebuild](#)

[Sloy Power Station Transformer Replacement Project](#)

[Creag Dhubh - Dalmally 275kV Connection](#)

[Argyll and Kintyre 275kV Substations](#)

[Creag Dhubh - Inveraray 275kV Overhead Line](#)

## Construction Projects:

[Inveraray – Crossaig](#)

[VISTA - Glen Falloch & Sloy](#)

[Carradale Substation](#)



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