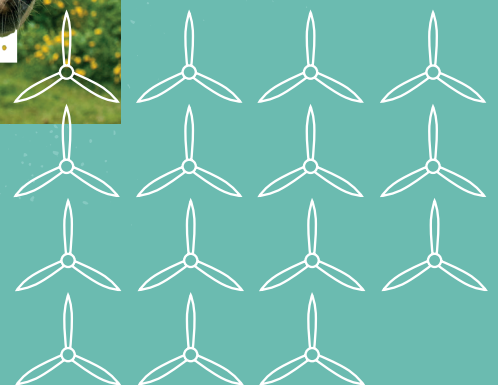


# Building Shetland's energy future

JULY ISSUE 2024



TRANSMISSION



### About SSE Renewables

SSE Renewables is a developer and operator of renewable energy across the UK and Ireland, with a portfolio of around 4GW of onshore wind, offshore wind and hydro. Part of the FTSE-listed SSE plc, its strategy is to drive the transition to a net zero future through the world class development, construction and operation of renewable energy assets.

SSE Renewables owns nearly 2GW of operational onshore wind capacity with over 1GW under development. SSE Renewables also has the largest offshore wind development pipeline in the UK and Ireland at over 6GW, of which around 3GW is in construction or consented.



### About Viking Energy Wind Farm

Viking Energy Wind Farm (VEWF) is a 103-turbine onshore wind farm set around the central Mainland of Shetland. The £580m project is owned by SSE Renewables and construction began in the autumn of 2020.



TRANSMISSION

### About SSEN Transmission

SSEN Transmission, operating under licence as Scottish Hydro Electric Transmission, owns, operates and develops the high voltage electricity transmission network in the north of Scotland. Its network consists of underground and subsea cables, overhead lines on wooden poles and steel towers, and electricity substations, extending over a quarter of the UK's land mass crossing some of its most challenging terrain.

SSEN Transmission powers the communities its network serves by providing a safe and reliable supply of electricity, taking the electricity from generators and transporting it at high voltages over long distances through the transmission network for onwards distribution to homes and businesses in villages, towns and cities.

We are committed to inclusive stakeholder engagement, and conduct this at an 'Accomplished' level as assessed by Accountability, the international consulting and standards firm.

### Keeping in touch

We are keen to hear your feedback, so if you have any questions about the newsletter or the works currently underway please contact:

SSEN Transmission Community Liaison Manager Thea Groat [thea.groat@sse.com](mailto:thea.groat@sse.com) / 07901 127 205

Viking Energy Wind Farm: [vikingwindfarm@sse.com](mailto:vikingwindfarm@sse.com)

To find out more about the projects and to register for updates please visit:

[www.ssen-transmission.co.uk/projects/Shetland/](http://www.ssen-transmission.co.uk/projects/Shetland/)  
[www.vikingenergy.co.uk/](http://www.vikingenergy.co.uk/)

# Viking Community Fund - Supporting Shetland's Priorities



Viking Business Plan 2024 (Colin Clark; Lindsay Dougan, Chris Bunyan)

Following an extensive community consultation, where every Shetland household was contacted to provide their views, Shetland Community Benefit Fund has published the Legacy for Shetland Business Plan. The business plan ensures the principles of the fund are for legacy, environmental sustainability, and equity to help address some of the challenges that come from living in Shetland. The Fund will focus on the following six priorities identified by the consultation:

1. More younger people wanting to stay and/or return to Shetland.
2. Better transport links within and between communities.
3. Reduced cost of living in Shetland.
4. Better broadband and / or mobile phone connections.
5. Improved housing supply and affordability.
6. Preservation and enhancement of Shetland's natural environment.

Shetland Community Benefit Fund is supporting community groups and stakeholders to develop proposals for the priorities and is scheduled to open for applications in early Autumn 2024. To discuss the business plan, please contact [admin@scbf.org.uk](mailto:admin@scbf.org.uk).



## VEWF – Getting ready for operation

As Viking Energy Wind Farm prepares for operation, SSE Renewables has been recruiting and training a local workforce to operate and maintain the wind farm. Successful candidates demonstrating the desired attributes have been appointed throughout this year and have undertaken significant training to ensure the operating demands for the site can be fulfilled locally.

Throughout the operational life of the wind farm, there will be a range of community, engineering and environmental elements which will need to be managed and maintained. SSE Renewables held a successful 'Suppliers Engagement' event in Lerwick, which allowed the operational team to engage with local suppliers, discussing the demands of the wind farm and understand the unique skill sets available within Shetland's workforce. Through this engagement

SSE Renewables will be able to fulfill its operating model ensuring the local Shetland supply chain is utilised through the operational phase of the wind farm. Working collectively with local companies, SSE Renewables will ensure sustainable generation of clean energy from the wind farm, aligning with community and national goals.

it is kindly requested that any public users on the site respect the operational rules and those conducting works at the wind farm. All communications during the operational phase of the wind farm should be directed to the Viking Energy Wind Farm inbox - [vikingwindfarm@sse.com](mailto:vikingwindfarm@sse.com). SSE Renewables would like to thank you for your cooperation and looks forward to future engagements with the Shetland community.

# An update from the SSEN Transmission project teams

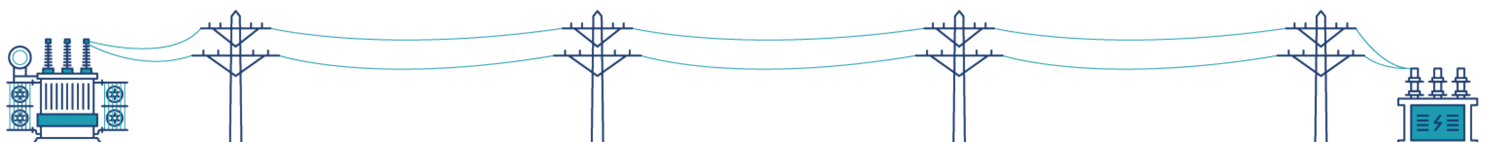
## Shetland HVDC Link Update:

The Shetland HVDC link project is rapidly approaching its final stages of completion, and the commissioning team at Kergord continue to progress through the critical Stage 2 Commissioning as the project remains on track for its scheduled handover to the National Grid Electricity System Operator (ESO) in late July 2024.

In a major milestone achieved in June 2024, the Caithness Moray Shetland (CMS) HVDC system entered multi-terminal operation for the first time – this is the first of its kind in Europe. To date, up to 250MW of power has been successfully exported from renewable energy sources on Shetland to the mainland and as the team continue with commissioning over the next month, this number will gradually increase to over 400MW in July (wind level dependant).

John Scott, SSEN Transmission's Programme Director, said: "The first flow of power from Shetland to the mainland on the Shetland HVDC link is a key moment for the Shetland community. Full energisation, linking Shetland to the GB transmission system for the first time will be crucial in delivering Shetland's energy security as well as enabling extensive renewable generation development and export.

"A tremendous collective effort from our teams so far, we can now look forward to working through the remaining commissioning phases of the project before it is fully energised later this summer."





GSP progress, June 2024:  
Photo courtesy of Shetland Flyer

**Gremista Grid Supply Point (GSP) and 132kV connections Gremista GSP Update:**

All primary steel work has now been erected on the Gremista GSP Grid Transformer bays and control building, and the cladding installation is now well underway with the roof panels installed on each building. The cladding works will continue over the summer period in conjunction with cable ducting and drainage works.



**Under Ground Cable Update:**

Deliveries of the 132kV underground cable have continued to arrive on the Island with the final delivery in June. Installation of the cable ducts have progressed between Kergord and Sandwater and ducting operations are now underway in the Meal Road section. The remediation works following the geotechnical event close to Setters Corner commenced in June. Construction of the first joint bays for the underground cable have commenced in the Kergord to Sandwater section in advance of cable installation activities.

The project has also submitted a planning application to Shetland Island Council to upgrade the Shetland Golf Club Road entrance.

**Overhead Line update:**

NorPower continued to make good progress with the overhead line installation works, aided by the favourable weather Shetland had in May. At date of writing 212 of the 275 trident H-poles have been erected and wiring works are 65% complete. NorPower continue to remain on program with completion planned in Q4 2024.



# Community Engagement

## Cable drums find new purpose!

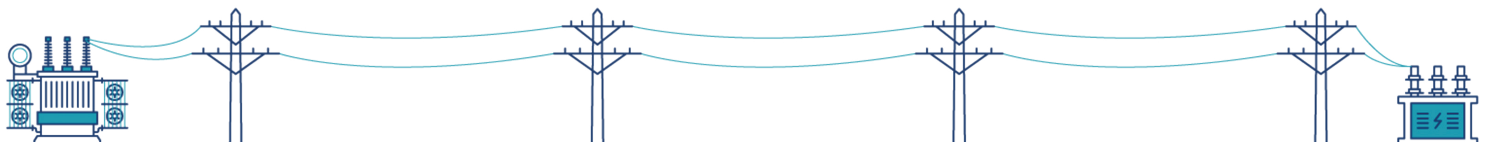
Members of the local community were delighted to receive recycled cable drums, thanks to a contractor involved in the construction of the 132kV connections from Kergord to Gremista GSP.

As part of the delivery of the 132kV connections, NorPower are installing the new over head lines that connect Kergord HVDC Substation to the Gremista GSP in Lerwick.

160 empty cable drums that were originally from NorPower's wiring works have now been donated to schools, community groups and even goat pens!



Hamnavoe School received four of the cable drums to use in their playground.



# Gremista Connection team get involved with Da Voar Redd Up

Project teams working on SSEN Transmission's Kergord to Gremista Connection Project swapped their usual tools for litter picks and bin bags to take part in this year's Da Voar Redd Up and help clear-up unwanted litter around Lerwick.

The team of 12 volunteers from SSEN Transmission and Morgan Sindall Infrastructure rolled up their sleeves to lend a hand to the community litter drive and do their bit to help keep Shetland tidy.

Starting on Ladies Drive in Lerwick, the volunteers worked to collect and remove any pieces of litter from along the nearby roadside, including left over food containers, old plastic bottles and even an old petrol can. Within a single hour, the team had collected over 20 bags of rubbish. They also removed a large piece of plastic thought to have once come from a barrel, a section of broken plastic pipe and even a piece of tin roof which is thought to have blown off during winter storms.

All the refuse has been safely sorted, disposed of and logged as part of the wider Redd Up litter drive.







Shetland Celebration of STEM 2024

# SSEN Transmission supports next generation of Shetland STEM superstars

Shetland school pupils have been welcomed to two STEM-focused events to inspire them to become tomorrow's engineers in the future of net zero and renewable energy.

SSEN Transmission sponsored the two events which took place last month in Shetland to help inspire pupils to take up a career in STEM and showcase the opportunities available.

SSEN Transmission, along with SSE Renewables, once again supported this year's Celebration of STEM event held at Lerwick Museum, which welcomed over 80 pupils along to try out various industry-led challenges. The event is organised by Prosper and Young Engineers Science Club (YESC), who set a timed challenge for pupils to complete in the best time.

One such challenge – named Power Path - was inspired by the green energy exploration in Shetland. It involved teams building marble runs to represent subsea cables transferring electricity from sustainable sources.

This year's Regional Winner was Ollaberry Primary school, who completed the challenge in the fastest time. Also visiting Shetland in May was a team from Edinburgh Science, who created a specially crafted STEM 'Electrical Explorers' workshop which hit the road to visit 10 schools across the island. Sponsored by SSEN Transmission and Hitachi Energy, the events aimed to share more about the importance of science and technology in the global fight against climate change, how electricity is transported across the country and the opportunities available in the energy industry.

Mark Balfour, Principal Teacher from Aith Junior High School said: "Our primary 6 & 7 pupils recently had the chance to discover the wonders of electricity first-hand in

a stimulating interactive workshop led by scientists from Generation Science. Pupils explored the workings of circuits and components by using their own movement to generate green electricity and find out how it is stored.

"The highlight came at the end where pupils charged up mini-robotic creatures for a race around the track!

"Our pupils were captivated by the workshop. The visiting specialists made complex concepts accessible and engaging, highlighting the importance of understanding electricity in our technology-driven world, and how it can be generated sustainably. We greatly appreciated this valuable learning opportunity being provided free of charge at a time when our school budget is squeezed as never before."

Thea Groat, SSEN Transmission Community Liaison Manager, said: "It's been fantastic to support two brilliant STEM events in Shetland this year. We were delighted to jointly sponsor this year's Celebration of STEM event for a second year with SSE Renewables, and it was really wonderful to welcome 80 enthusiastic pupils to take part in the Power Path challenge this year.

"The team from Edinburgh Science visited 10 schools across Shetland to take their Electrical Explorers workshop on the road, and the feedback from both teachers and pupils alike has been excellent. We're so pleased we've been able to co-sponsor the events along with Hitachi Energy.

"It's so important for pupils to be engaged in STEM and realise the huge amount of opportunities available in a career in energy and STEM, particularly right here on Shetland. We're continually impressed by the pupils enthusiasm and knowledge, and it's been great to be involved in these events this year."



SSE Christianna Logan Director  
of Customers and Stakeholders  
SSEN Transmission

# SSEN Transmission Community Benefit Fund

SSEN Transmission is preparing to launch its first Community Benefit Fund in September, to start bringing positive benefits to communities across the north of Scotland now, with the aim of delivering over £100m of funding in the future.

From 1 September, community groups in the north of Scotland will be able to apply for funding from an initial £2m that is being released from the company's opening £10m community benefit fund, which covers in-flight projects that are already being delivered.

And looking forward, based on SSEN Transmission's ambitious £20bn 'Pathway to 2030' investment programme, and initial indication from the UK Government on the anticipated scale of community benefit funding, the company expects the overall value of its community benefit fund to exceed £100m, creating a huge opportunity to maximise the transformative impact that new electricity transmission developments can have in the region.

**Following extensive consultation in 2023, the company has also confirmed that priority for funding will be given to projects that deliver on three identified themes:**

- **People:** focusing on skills, training and employability;
- **Place:** emphasising the community and culture of the north of Scotland; and
- Reducing fuel poverty levels.

SSEN Transmission is now looking to recruit a Panel Chair



to lead on strategic decision-making for the new regional fund, who will assist in finalising processes and criteria for applications and ensure fairness and transparency.

**To ensure that a robust assessment of applications is made to the fund, the panel will be formed of the following members:**

- The Chair of the Panel;
- **Three other independent advisors:** leading experts in diverse fields that reflect the core themes of the fund; and
- A representative from SSEN Transmission.

**Christianna Logan, SSEN Transmission's Director of Customers and Stakeholders, said:**

"We're delighted to announce the launch of our community fund in September, with an initial regional pot of £2m of funding available from current projects to get the ball rolling. "This is just the start as our 'Pathway to 2030' investment

programme is a £20bn investment in new electricity transmission infrastructure, and we anticipate the associated overall value of our community benefit fund between now and 2030 to exceed £100m based on indications from the UK Government on the anticipated scale of community benefit funding.

"That will be massive in ensuring that communities across the north of Scotland see a tangible and lasting benefit from hosting this critical national infrastructure, and, subject to final Government guidance and regulatory approval, we will work with those communities to maximise the transformative impact our fund can have.

"Recruiting the right person to Chair the fund is a particularly important next step in setting this all up for success, and with applications now closed, we're looking forward to making an appointment soon."

# Environmental Update & Transition to Operational Phase

As noted in the previous newsletter, the environmental risks in the construction of the windfarm are diminishing as the permanent drainage system installations are completed. An example can be seen by most if using the old B9075 to access Kergord and Weisdale from the A970. However, the team remains vigilant in the monitoring of the systems installed to ensure their effectiveness. This monitoring will carry on for the next two years and additional remedial works will be carried out.

Our ECoWs (and all operatives) have also remained vigilant in regard to identifying nesting bird locations, with the known red-throated diver locations now protected from disturbance by the installation of "line of sight" screens. Provisions have been made to allow a more robust version

of these screens to be installed each breeding season and this will be implemented by our operational colleagues. While the season is still ongoing, it seems apparent that the ground nesting birds are adapting to the infrastructure and, in some cases, using the stone verges as nesting points.

Some improvements have been noted in the water quality at Burns of Lunklet and Weisdale and SSER will be taking the management of treatment, sampling and analysis in-house from the end of August. This remains our top environmental priority going into the operational phase.

The following forthcoming initiatives will also be progressed as the project moves into the operations phase:



# VEWF Native Woodland

- Works to be carried out 2024
- Area will be fenced prior to works starting (Stock and Hare proof)
- Existing peat cover will be mixed with topsoil to provide a suitable growing medium. Soil pH will be determined.
- Up to 6000 plants will be planted, pending area availability.

Species will be confirmed via Shetland Amenity Trust but will aim to include:

- Downy birch, common alder, Eared Willow, Salix multinervis, Dog Rose, Juniper, Rowan, Aspen and Hazel
- Strategic ponds and wetland areas will be formed to allow conditions to be managed
- Access pathways will be formed for both maintenance and recreational use.



## Peatland Restoration Training

Recognising a shortage in the peatland restoration skill set on the island, and across the country, a partnership between SSER and NatureScot has been created to launch a pilot training academy utilising the readily available access to plant, trainers and locations provided by the ongoing HMP works on Viking. Local contractors have been invited to attend a three-day session of practical and classroom style training. Pending the success, additional sessions may be undertaken and the initiative rolled out across the Scottish mainland. Shetland leading the way again!

## Archaeology

Our archaeological consultants will be running the third phase of our commitment to archaeological community engagement. Pending the final approval from Historic

Environment Scotland (HES), a community involved archaeological dig will be carried out at an abandoned steading on the periphery of the wind farm boundary. This will aim to expose locals, with a passing interest in archaeology, to the methods employed in carrying out this sort of work. Time Team in action!

## Native Woodland

Works have commenced on the creation of a Native Woodland utilising the topography created by the infill and reprofiling of a borrow pit in the eastern arras (South Nesting). This work is being led by local ecologists and our locally based Habitat Management Planning team. Once complete the woodland will be managed and monitored by our operations team, in conjunction with the local stakeholders and will be accessible to the public.

Photo looking North, of Kergord Platform and WF turbines generating for HVDC commissioning works. Platform area and windfarm reinstatement is advancing well.



## Energisation of the wind farm

Viking reached a significant milestone when it started producing electricity as part of final commissioning. This represents the first flow of power from Shetland to the mainland on the Shetland HVDC link.

This enabled the project to undertake stage 2 commissioning of live 132kV and 33kV plant and equipment. This ensured that all commissioning plans were followed, and all test and inspection criteria were met and approved. On completion of this, the wind farm is being used to provide power/load to the HVDC project as part of final commissioning works. During this HVDC commissioning period, Viking will also look to carry out final commissioning works and testing of turbines.

This will consist of periods of turbines running and being paused to allow checks to be completed on plant and equipment whilst under load.

On completion of all commissioning works in Q3 2024, Viking will be ready to provide clean, renewable energy to the UK, and make a significant contribution to net zero targets.

Final snagging of all main packages, such as civil works, wind turbine works, and electrical works are ongoing and will be largely completed prior to handover of the full wind farm project to the operations team, planned for the end of Q3 2024.

# Construction update getting to energisation

As we continue through summer, general construction works on the wind farm project have largely been completed. We are currently in a period of final inspections, reinstatement and snagging works across the whole project to ensure the wind farm is completed to a high standard and to ensure the project is ready for a smooth handover to our SSER Asset Management colleagues, currently planned for late Q3 2024.

We are also currently planting indigenous tree saplings in the location of our on-site borrow pit, NBP05, now reinstated, to provide a legacy, woodland amenity space for the public.

Main items being addressed from a civils perspective include the revegetating of verges for construction infrastructure works and the onsite borrow pits, final improvement of the onsite track surface and cleaning out and improvements to drainage systems across the wind farm. The re-vegetating of verges will include a combination of relaying of stored, original turves or through appropriate grass seed mix spreading.

Electrical snagging works are minor and are being completed over the summer period. Similarly, wind turbine snagging works are well advanced and will be completed prior to our handover to operations colleagues.

Whilst the completion of the wind farm works are advancing positively, there has been a delay with our final surfacing works to the new Sandwater Road. The project was able to commence surfacing works as planned on the 20th May and whilst this was a successful day, the tar plant at Scord Quarry unfortunately broke down that evening.

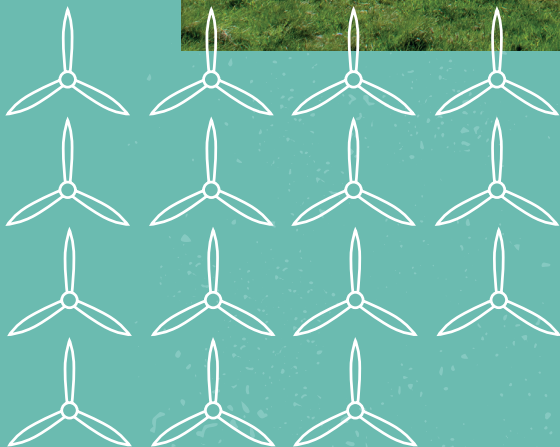
This is the only source of tar on Shetland which has caused a delay to the completion of Sandwater Road. The plant is due to be operational in the first half of July but unfortunately due to contractor holidays planned for after the original completion of the works, we are unable to re-commence surfacing works until early August. The road restraint barriers and parapet to Pettawater bridge have been installed in the interim. Once the surfacing has been completed, white lining, signage and bollards will be installed to bring the road to a standard ready for adoption by Shetland Islands Council now programmed for late Q4 2024.



T6 on the west of the site Looking north



View at Nibon



To find out more about the projects and to register for updates please visit:  
[www.ssen-transmission.co.uk/projects/Shetland/](http://www.ssen-transmission.co.uk/projects/Shetland/)  
[www.vikingenergy.co.uk/](http://www.vikingenergy.co.uk/)

