

Onshore Wind Sector Deal for Scotland

Foreword

We are delighted to introduce this onshore wind sector deal which sets the ambition for the next phase of onshore wind delivery in Scotland. As we stand on the threshold of a pivotal era in the energy transition, this sector deal crystallises our dedication to work together to harness the proven potential of onshore wind to shape a cleaner, more prosperous future for the nation.

Scotland's rich wind resources, technical expertise and commitment to tackling climate change have paved the way for a journey toward a greener energy landscape. This deal encapsulates the collective vision to harness the power of the wind to drive economic growth, create high-quality jobs, reduce carbon emissions and ultimately benefit the communities of Scotland.

This document demonstrates many commitments across many stakeholders, with essential themes that should be recognised and celebrated. By fostering collaboration between the Scottish Government, industry and local communities, we can ensure that this endeavour is not just about harnessing the wind but also about nurturing sustainable growth. This is a moment of convergence, where sustainable development aligns with economic prosperity.

As we embrace the possibilities of this sector deal we acknowledge the challenges that lie ahead. Balancing the needs of energy production with environmental stewardship demands diligence and continuous innovation. This deal charts a course that safeguards our natural heritage while delivering clean, affordable energy to power our lives and industries.

Crucially, this deal emphasises inclusivity and equity ensuring that the benefits of our onshore wind revolution are shared by all.

In a period where the sector has continued to deliver low cost electricity but also seen increasing costs and reduced revenues, the sector is proudly committed to working even more closely with local communities, engaging them in decision-making processes and delivering tangible benefits that improve lives and livelihoods. Our commitment to nurturing talent and fostering a culture of innovation will maintain Scotland's position at the forefront of the global renewable energy revolution, setting an example for the world to follow.

The Government is committed to working with developers and stakeholders, understanding the operational barriers to delivering onshore wind projects and setting out processes to help reduce them. We also commit to speeding up consenting decisions, working with planning authorities and statutory consultees to increase skills and resources, as well as streamlining approaches.

Jointly, we will work together on ensuring a balance is struck between onshore wind and the impacts on land use and the environment. We will collaborate to enable information to be collected and shared for monitoring and evidence purposes, and we jointly want to capitalise on the unique opportunity for Scotland to become a world leader in decommissioning, remanufacturing and recycling of onshore wind assets.

We want to thank everyone for the commitment they have made in negotiating this document. Although this is an agreement between the onshore wind industry and Government it was

through collaboration and a willingness to engage from all parties that we have reached this historic agreement.

The sector deal is more than just a document; it is a testament to our determination, a celebration of our potential, and a promise to future generations. Let us work together to usher in an era where innovation, sustainability, and prosperity converge, as we power Scotland's greener future through the boundless energy of onshore wind.



Neil Gray MSP
Cabinet Secretary for Wellbeing
Economy, Fair Work and Energy



Gillian Martin MSP
Minister for Energy and the
Environment

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Claire Mack
CEO, Scottish Renewables

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Barry Carruthers
Chair of the ~~Wind Sector~~
Wind Sector Working Group

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- Neil Gray MSP, Cabinet Secretary for Wellbeing Economy, Fair Work and Energy
- Claire Mack, Chief Executive of Scottish Renewables
- Gillian Martin MSP, Minister for Energy and the Environment
- Michael Matheson MSP, former Cabinet Secretary for Net Zero, Energy and Transport

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- Simon Gill of The Energy Landscape - Regulatory and Legislative theme lead
- Sam Johnson of RES - Technical theme lead
- Robbie Kernahan of NatureScot – Land-use and Environment theme lead
- Chris Morris of Local Energy Scotland – Community theme lead
- Marcus Trinick, KC – Planning theme lead
- Paul Wheelhouse of South of Scotland Enterprise – Supply Chain, Skills, and Circular Economy theme lead

The Sector Deal co-ordination and delivery team

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The onshore electricity team at the Scottish Government

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Abbreviations and Glossary

Term	Meaning
AMB	Aviation Management Board
ANSP	Air Navigation Service Provider
AvLi ⁱ	Aviation Lighting Working Group
CfD ⁱⁱ	Contracts for Difference
CWIC ⁱⁱⁱ	Coalition for Wind Industry Circularity – a Scottish industry-led initiative to increase the use of remanufactured components in the wind sector and to address barriers to achieving materials circularity in wind energy
CNS	Communication, navigation and surveillance technologies deployed to mitigate aviation impacts
DPEA	Planning and Environmental Appeals Division (Scottish Government)
EA	Enterprise agencies, including Highland and Islands Enterprise, Scottish Enterprise, and South of Scotland Enterprise
ECU	Energy Consents Unit (Scottish Government)
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
EKA	Eskdalemuir Seismic Array
FSO ^{iv}	Future System Operator
HOPS ^v	Heads of Planning Scotland
IFP	Instrument Flight Procedures
MOD	Ministry of Defence
NPF4	National Planning Framework 4
O&M	Operations and Maintenance – activities undertaken to service, maintain, and repair operational wind turbines
OEM	Original equipment manufacturers - principally the wind turbine manufacturers

ⁱ <https://www.gov.scot/publications/onshore-wind-policy-statement-2022/pages/7/>

ⁱⁱ <https://www.lowcarboncontracts.uk/our-schemes/contracts-for-difference/>

ⁱⁱⁱ <https://www.strath.ac.uk/whystrathclyde/news/2023/coalitionforwindindustryCircularity/>

^{iv} <https://www.nationalgrideso.com/what-we-do/our-strategy/future-system-operator-fso>

^v <https://hopscotland.org.uk/>

Term	Meaning
OnWARD 2030 ^{vi}	Industry led Onshore Wind Aviation Radar Delivery 2030 Group
OnWPS ^{vii}	Onshore Wind Policy Statement published by the Scottish Government
OPITO ^{viii}	A global, not-for-profit, skills body for the energy industry
PAs	Planning authorities - including local government planning authorities and Scottish Government's Energy Consents Unit
S36 ^{ix}	Section 36 of the Electricity Act 1989, used by the ECU to determine applications for wind farms of greater than 50 MW
S36C	Section 36C – the process for assessing variations to S36 consents
SEPA	Scottish Environment Protection Agency
SIM ^x	Strategic Investment Model being used to coordinate strategic investment in offshore wind supply chain and infrastructure in Scotland
SLG ^{xi}	Strategic Leadership Group
SME	Small and medium sized enterprises
SOWEC ^{xii}	Scottish Offshore Wind Energy Council
SOWSD	Scottish Onshore Wind Sector Deal – this document
SR ^{xiii}	Scottish Renewables – renewable energy industry trade association in Scotland
Statutory Consultees	Government agencies that act as statutory consultees on all consent applications that includes NatureScot, Historic Environment Scotland, Planning Authorities, and the Scottish Environmental Protection Agency
SG	The Scottish Government
“The Sector”	The Scottish onshore wind sector
“The Government”	The Scottish Government

^{vi} <https://www.gov.scot/publications/onshore-wind-policy-statement-2022/pages/17/>

^{vii} <https://www.gov.scot/publications/onshore-wind-policy-statement-2022/>

^{viii} <https://www.lowcarboncontracts.uk/our-schemes/contracts-for-difference>

^{ix} <https://www.gov.scot/policies/energy-infrastructure/energy-consents/>

^x <https://www.offshorewindscotland.org.uk/the-scottish-offshore-wind-industry/sowec/sim/>

^{xi} <https://www.gov.scot/groups/onshore-wind-strategic-leadership-group/>

^{xii} <https://www.offshorewindscotland.org.uk/the-scottish-offshore-wind-industry/sowec/>

^{xiii} <https://www.scottishrenewables.com/>

Supply chain, skills and the circular economy

We will support the enhancement of the current skills and training provision by further and higher education and other training providers to focus on delivering the needs of the wind industry and to position Scotland as a world leader in material circularity.

The development of the supply chain for onshore wind in Scotland is crucial to providing both an opportunity for sustainable economic development and in delivering an increased volume of projects by 2030. The available level of skilled and experienced staff for industry, Government (local and national), agencies and regulators needs to grow to be sufficient to facilitate the 2030 ambitions.

This presents an opportunity to increase the number of individuals gaining qualifications in renewable energy and circular economy skills and of skilled professionals transitioning into renewables from other sectors. It also offers the opportunity to align the sector's skills development and transition needs with the Scottish Government's broader objectives for diversity in the workplace.

Maximising the reuse of materials and minimising waste in the supply chain presents an opportunity for the development of high-value industries and jobs, particularly as more sites become ready for decommissioning. Scotland can be a world leader in the reuse, refurbishment, remanufacturing and recycling of wind turbine components and wider assets, which in turn will create jobs and export opportunities.

Collaborative action to support onshore wind

- By April 2024, the onshore wind sector (the “Sector”) and the Scottish Government (“the Government”) will have established a working group and published a paper identifying the range of skills needed by industry to deliver our 2030 target. This paper will include a timeline indicating the number of jobs and roles required year on year to fulfil our 2030 ambitions. The purpose of this paper will be to provide the skills analysis from which the enhancement of the current skills and training provisions for further and higher education can be developed.
- By September 2024, the Sector and Government will collaborate with the further and higher education sector and relevant training providers to use the skills analysis to enhance the current skills and training provision for apprenticeships, academic, transition and vocational modules. Liaison with the Sector will be required to:
 - Examine those areas of manufacturing and remanufacturing for onshore wind that could have synergies with, and reduce investment risk for, offshore wind supply chain

- investment such as collaboration with the turbine suppliers, Tier 1 contractors, enterprise agencies (EAs), decommissioning companies, and SOWEC clusters groups.
- Understand the specific infrastructure requirements for ports to support onshore wind, and any circularity-related opportunities (within the context of emerging Strategic Investment Model (SIM) projects).
 - Consider synergies for investment in skills and training, identifying where there is overlap between core skills required for onshore and offshore roles, and seeking common cause in boosting the talent pool.

Sector action to support onshore wind

- Following the collaborative work undertaken by the Sector and Government to identify skills gaps and opportunities for training, the Sector will commit to an appropriate number of apprenticeships, training opportunities and skilled jobs, across the sector and related industries, for the lifetime of the sector deal.
- From 2024, we will publish data on the percentage of local content in the supply chain and O&M arrangements of our projects at the point of commissioning.
- By the end of 2024, we will have established a collaborative approach to promoting supply chain opportunities to support increased local content in projects.
- From 2024, we will utilise onshore wind pipeline data to identify and pursue opportunities for geographic clustering of O&M capacity and will seek collaborative co-investment in O&M facilities and logistics infrastructure around Scotland, delivering economic impact in the locale of projects.
- We will collaborate with the Coalition for Wind Industry Circularity (CWIC) to facilitate publishing its full programme of commitments by Q1 2024, and to support efforts towards:
 - Innovative circular supply chain development
 - Progressing Scottish/UK supply chain options for reused, refurbished and remanufactured component parts
 - Establishing common standards for reporting on individual company approaches.
- We will, supported by Government and relevant agencies, deliver at least one specialist blade treatment facility in Scotland by 2030, positioning Scotland as a European hub for this significant market opportunity.

Government action to support onshore wind

- We will explore opportunities with EAs to support onshore supply chain development and business diversification and transition, publishing a strategy paper by July 2024.
- We will work with the Sector, and our UK counterparts as required, to explore the role a regulatory stimulus could play in driving behavioural change in the circularity of materials, including blades and the use of refurbished or remanufactured components, publishing a

strategy paper by October 2024. This action will take account of the CWIC programme of commitments to be published in Q1 2024.

- From Q3 2023 our direct partner agencies, including SEPA, Zero Waste Scotland and EAs, will aim to participate in the CWIC initiative and develop industry collaboration in support of delivering CWIC's ambitions.
- We will continue to provide a national, strategic framework for skills in Scotland with the National Strategy for Economic Transformation Skilled Workforce programme, the Climate Emergency Skills Action Plan and the Energy Strategy and Just Transition Plan.
- We will seek to work with SOWEC through its Skills Group to support coordinated skills information for onshore and offshore wind.

Community

Onshore wind in Scotland will continue to collaborate with local communities, building on good practices to enhance its existing ‘good neighbour’ approach through engagement at all stages of the project life cycle, offering impactful community benefits and practical routes to shared ownership.

The Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments were first introduced in 2014 and most recently updated in 2019. Between 2018 and 2022, over £106 million in community benefits have been committed from onshore wind projects. This will continue to rise as we realise our ambitions for growth over the coming decades. These community benefits are being made available to communities to support a diverse range of activities to improve the daily lives of people across Scotland. The community package, which includes community engagement, community benefits and shared ownership, will generate, circulate and retain more wealth in communities and localities.

The Scottish Government has adopted the internationally recognised Community Wealth Building^{xiv} approach to economic development as a means by which progress can be made towards realising its vision of a wellbeing economy.

This Community Wealth Building approach is reflected in the Scottish Government’s Onshore Wind Policy Statement 2022^{xv} which commits to the principles of a just transition to a net zero economy, ensuring communities across Scotland feel the benefits of the energy transition. The policy statement sets out the benefits expected for local communities which this sector deal will deliver for all new renewable energy projects, including repowering and extensions to existing projects.

Collaborative action to support onshore wind

- The Sector and Government will collaborate with other relevant stakeholders to establish a standard approach to the financial management of community benefits funds by the end of 2024 to ensure:
 - Transparency in how funds are managed and spent,
 - Effective reporting of the impact of community benefit in Scotland’s communities,
 - That a national register of community benefit and community shared ownership is created and updated on an annual basis.
- The Sector, Government and other relevant stakeholders will collaborate to develop practical approaches to support and encourage community shared ownership models to

^{xiv} <https://www.gov.scot/publications/building-community-wealth-scotland-consultation-paper/>

^{xv} <https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2022/12/onshore-wind-policy-statement-2022/documents/onshore-wind-policy-statement-2022/onshore-wind-policy-statement-2022/govscot%3Adocument/onshore-wind-policy-statement-2022.pdf>

assist developers, funders, local government and communities to engage in these opportunities, publishing a framework by the end of 2024.

Sector action to support onshore wind

- We will engage with communities from the earliest opportunity possible in the project development cycle to agree a community package that will meet or exceed the principles set out in the Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments 2019 and the Good Practice Principles for Shared Ownership from Onshore Renewable Energy Developments 2019.
- We will aim to provide an in-principle community benefit agreement prior to the Financial Investment Decision (FID) and will ensure that community benefit agreements become binding once FID is achieved.
- When projects are sold or there is a transfer of interest, we will ensure that any community benefit and community shared ownership agreements are maintained as a condition of the sale or transfer.
- Where aligned with community priorities, we will seek opportunities to provide support and funding that enables more ambitious projects that make a long-term strategic impact in supporting a just transition to net zero to be delivered. This could include measures such as energy efficiency improvement, solar PV panels, low carbon heating in local homes and the installation of electric vehicle charging infrastructure in community spaces.
- By the end of 2024 we will look for opportunities where we can take a collaborative approach to co-ordinating community benefit funds with developers, owners and the local communities of neighbouring developments where there are common or overlapping areas of benefit.
- We will engage with key stakeholder organisations during the pre-planning application phase of projects to highlight community shared ownership opportunities and provide community bodies with sufficient time to investigate these opportunities.

Government action to support onshore wind

- We will continue to make the community benefits toolkit available on the Local Energy Scotland website and will update relevant case studies on an ongoing basis.

Land use and environment

National Planning Framework 4 (NPF4) policy 1 makes clear that, when considering all development proposals, significant weight will be given to the global climate and nature crises. New onshore wind projects in Scotland will enhance biodiversity and optimise land use and environmental benefits.

The Sector will work with the Government, agencies and stakeholders to ensure a balance is struck between the need for increased onshore wind capacity and the impacts that onshore wind can have on land use and the environment. Balancing the need for more wind farms with the safeguards defined in NPF4 will be a crucial aspect of achieving the 2030 onshore wind ambition. Scotland will continue to be a world leader in responsible onshore wind development, demonstrating how onshore wind can co-exist with a diversity of species, sensitive habitats, peatland, carbon rich soils and forestry, ensuring positive outcomes for the climate and nature.

Collaborative action to support onshore wind

- The Sector, Government and other relevant stakeholders will participate in the peat expert group as outlined in the Onshore Wind Policy Statement. The group will draw on existing and emerging industry, academic and public sector expertise and practice to provide advice to the Government on how peatland management and restoration and onshore wind ambitions can be delivered. Guidance will be brought into line with the peat expert group's recommendations by the end of Q1 2024.
- By Q3 2024, the Sector, Government and other relevant stakeholders will collaborate on a consistent, evidence-based, proportionate national approach to measuring and evidencing biodiversity enhancements on onshore wind project sites, including consideration of the approach to offsite enhancement.
- By Q1 2024, the Sector, Government and other relevant stakeholders will establish a mechanism by which onshore wind developers can submit information produced as part of the consenting process, such as the site location, dimensions and habitat management plans, but excluding information which cannot legally be made generally available, to a central data repository. This process will include a mechanism for submitting the data gathered in response to planning conditions such as annual bird monitoring, habitat management and peatland management. This data will be used to create a central geospatial database that will be regularly maintained and updated, and which can be accessed for various analytical and monitoring purposes.

Sector action to support onshore wind

- Once a consistent national approach to measuring and evidencing biodiversity enhancement is in place, we will adopt this approach to measuring and evidencing

biodiversity enhancements on our project sites, providing monitoring data (but excluding information which cannot legally be made generally available) to the central repository.

- Following the outputs of the peat expert group, we will provide monitoring data (but excluding information which cannot legally be made generally available) to the central repository so that peatland management and restoration activity can be tracked over time.
- We will establish a working group alongside relevant stakeholders to explore the lessons learned from the Hagshaw cluster and to consider the wider potential of a project cluster approach to biodiversity enhancement and infrastructure efficiencies, publishing initial findings by October 2024.
- From Q1 2024, we will provide project information produced as part of the consenting process, such as the site location, dimensions of infrastructure and habitat management plans (but excluding information which cannot legally be made generally available), to the central data repository in a useable format.

Government action to support onshore wind

- By the end of Q1 2024, we will provide clear guidance to developers and planners on the expectations associated with environmental protection and enhancement, including through publishing guidance on NPF4 biodiversity policy and clarifying any potential policy conflicts between onshore wind ambitions and peatland restoration.
- We will seek opportunities to collaborate with public bodies on new guidance they bring forward relating to their functions in onshore wind applications.

Planning

We will reduce the time it takes to determine Section 36 applications for onshore wind projects by increasing skills and resources and by streamlining approaches to scoping Environmental Impact Assessment Reports (EIARs) by using template formats and associated guidance.

The ambition of 20GW of installed onshore wind capacity by 2030 will require a significant number of new sites, the repowering and extension of existing sites and the realisation of unbuilt consented sites. Meeting this ambition will require the determination of applications to be made much more quickly than in recent years. Success in expediting the decision-making process will only be possible if a number of key commitments are made and acted upon collectively. This acceleration of both the determination of applications for development and the discharge of conditions can be achieved, but only if all stakeholders act in concert.

Whilst the actions below relate only to Section 36 determinations, the Sector, Government and planning authorities will collaborate to continue to introduce efficiencies into the process for determining applications under the Town and Country Planning Act.

Collaborative action to support onshore wind

- In Q4 2023, the Sector and Government will establish a collaborative working group to develop a recommended standard scope and format for EIARs for onshore wind farms, designed to reduce the burden on consultees and other stakeholders. This action will be complete by Q2 2024. The standard scope and format will focus on proportionality in deciding what is required for consultees and decision makers to identify potentially significant environmental effects and how the information may be best presented. The intention will also be to encourage a statutory scoping of EIARs at a time when sufficient information is known to allow for an informed focus on potentially significant effects. The design envelope approach to EIA (known as the Rochdale Envelope and advised for use in Section 36 applications by the ECU in June 2022) has the potential to minimise the need to make post-consent applications to adjust the dimensions of turbines or to relocate turbines and other wind farm infrastructure.
- In Q2 2024, the Sector and Government will agree and publish template formats for Section 36 consents and deemed planning permission, including conditions imposed on consents, which will facilitate both the more efficient issue of consents and an efficient and speedy variation process.
- The Sector, Government and statutory consultees will meet at least annually to examine data on consenting timelines and agree on any actions needed to achieve the desired targets.
- The Sector and Government will work with the statutory consultees, the ECU and the DPEA to determine resourcing and training requirements to process the expected project

pipeline. By July 2024, they will set out proposals for how additional resources and/or training can be accessed by statutory consultees when they are responding to onshore wind applications, and by decision makers when discharging pre-commencement planning conditions. The additional resource and training proposal is expected to be in place by the end of 2024 and will be funded through an agreement between Government and the onshore wind sector. Where it is identified and agreed by all parties that actions can be taken sooner, without the need for additional funding, these will be taken at the time they are identified.

- From Q4 2023, the Sector, Government and other relevant stakeholders will review how baseline information requirements for the EIA of projects to re-power operational wind farms, or for life extension applications under Section 36C, can be appropriately optimised, having regard to the relevance of data already available from earlier EIARs and published reports of surveys of the environmental impacts of construction and operation, whether generic or site specific. The work to develop a standard scope and format for EIARs will reflect this review.

Sector action to support onshore wind

- By the end of 2023, we will provide an analysis of the expected pipeline of new onshore wind projects, extensions to existing projects, life extensions and re-powering projects expected between 2023 and 2030. This analysis will include when these developments are likely to be submitted for Section 36 consent or planning permission, the likely geographic distribution of development between planning authorities, and the potential MW scale of development. We will update this pipeline at least bi-annually to enable Government and statutory consultees to plan ahead for the resources that will be required to process applications.
- From 2024, we will submit plans for consent that are buildable without delay, to the extent that such delays are not caused by external factors beyond a developer's control. Developers need to react to rapidly changing market conditions and as such it may continue to be necessary to seek consent for amended schemes, but we will seek to take such action only on the basis of turbine availability or project viability.
- From the end of 2023, we will proactively engage with consultees to improve approaches to the scoping of the environmental information required in EIARs. We will seek to ensure that the information produced on each topic is both sufficient and as brief as possible, focusing on potentially significant environmental effects while explaining why other topics do not require assessment within the EIAR. We will provide notice of upcoming consultations as early as is practical, helping ensure that the appropriate resource will be available when needed.
- From the end of 2023, we will ensure that in planning for developments close to other projects, regardless of the owners/developers involved, due attention is given to cooperation on interconnected planning and environmental considerations for the area.

This will be done through joint working on topics such as operational noise, construction access, the delivery of biodiversity enhancement, habitat management plans, layout and design, and benefits for the community, where this can be achieved without undue delay to any individual project.

- From Q3 2024, we will ensure the submission of Section 36 applications for consent, and the accompanying EIARs, are based as far as is possible on the agreed templates, scopes and formats, to enable effective and efficient determinations without any need for additional information.

Government action to support onshore wind

- From 2025, we will aim to determine Section 36 applications for new sites, and for the repowering of existing operational sites, within 12 months where there is no public inquiry, or 24 months if there is a public inquiry. Further, we will aim to determine applications for the life extension of operational wind farms within five months, and other Section 36C applications within nine months where there is no public inquiry. We will track when these timelines are not achieved and the reason for this, publishing this data annually.
- From mid-2024, we will promote the timely discharge of pre-commencement planning conditions, aspiring to discharge the majority of construction-ready projects within six weeks.
- By Q2 2024, Government will work with Heads of Planning Scotland (HOPS) and the DPEA to develop guidance on consistent formats for public inquiry reports for Section 36 applications and consultation responses from PAs.
- The Scottish Government will publish planning and climate change guidance providing advice on the application of NPF4 policy in supporting development that helps meet greenhouse gas emissions reduction targets.
- By the end of 2023, we will write to relevant statutory consultees to highlight the ambitions of the new determination timescales for Section 36 applications and set out the need for those statutory consultees to support this ambition when responding to consent applications.

Legislative and regulatory

Through detailed pipeline analysis we will develop evidence to support a more strategic approach to delivering the investment in our electricity network and to inform a coordinated approach to the transportation of wind turbine components across Scotland's road network. We will support improvements to the network connections process helping to ensure that onshore wind capacity can connect and operate effectively.

Onshore wind development is enabled by several legislative and regulatory frameworks including the design of electricity markets, regulation of networks and the legislation governing the transportation of abnormal loads by road. While these frameworks have significant implications for the development, construction and operation of onshore wind farms in Scotland, they are reserved matters on which we will continue to work with the UK Government. Here we focus on what can be achieved within the Scottish legislative framework.

Collaborative action to support onshore wind

- Following delivery of the onshore wind pipeline analysis (see Sector actions below), the Sector and Government, working with Police Scotland and relevant stakeholders, will, by Q2 2024, agree plans to ensure timely and properly-resourced processes for wind turbine component transportation capable of supporting the growing volume of towers and blades that will need to be transported across Scotland's road network.

Sector action to support onshore wind

- Through existing working groups, we will proactively engage with National Grid ESO, Scottish Power Energy Networks and Scottish and Southern Electricity Networks to support short and long-term improvements to the connection process, in particular supporting actions to improve the management of the connection queue. From 2024, we will proactively help manage the connection queue, ensuring that stalled projects are removed or amended where appropriate.
- By the end of 2023 we will provide clear information on the expected pipeline of new wind farms, extensions to existing wind farms, life extensions and re-powering projects expected between 2024 and 2030. This spatial vision for the delivery of the 2030 ambition will build on the pipeline analysis committed to under the Planning section of the sector deal and will provide an evidence base to support National Grid ESO and Scotland's network companies to deliver strategic network planning.
- By Q1 2024, we will publish an analysis quantifying the likely scale of abnormal load movements throughout Scotland to deliver the 2030 ambition and make the results available to Government, Police Scotland, Transport Scotland and others involved in

escorting loads. This analysis will provide forecasts of abnormal load movements over time, including the likely number of turbine components that will need to be transported during each year to 2030 and the identification of the likely strategic access routes that will be used by multiple developers.

Government action to support onshore wind

- By the end of Q3 2024, in collaboration with the sector, we will develop good practice guidance, which will include a benchmarking exercise, depending on the availability of relevant data, for contractual negotiations in overrun and oversail situations.
- By the end of 2024 we will provide a forward vision for onshore wind which will look beyond 2030 and lay out the role that the sector is likely to play in the longer-term decarbonisation of Scotland's energy system. We will engage with Scotland's network companies, along with National Grid ESO, the Future System Operator, Ofgem and UK Government to ensure that the vision is integrated into plans for the development of the wider GB energy system.
- We will continue to engage with the UK Government and other relevant decision makers and stakeholders to advocate for market reform, a Contracts for Difference (CfD) mechanism and network charging that supports the delivery of Scotland's onshore wind ambition as part of a whole system approach to delivering net zero.

Technical

We will take action to enable a fair, consistent and transparent aviation process, delivering enduring cooperative coexistence between onshore wind deployment and safe aviation operations. In addition, we will seek where possible to unlock onshore wind deployment restricted by the Eskdalemuir Seismic Array whilst ensuring its protection as a globally important facility.

It is anticipated that new onshore wind farms will be constructed with the latest onshore turbine technology, which could see turbines deployed with capacities typically 6MW or greater, tip heights of more than 200 metres, and rotor diameters of 160 metres or more. Using bigger, taller turbines will help minimise the cost of energy and overall land use requirements and ensure that projects are able to secure suitable turbines from the supply chain. However, this may also lead to greater impacts on aviation. With onshore wind in Scotland being well established, enduring coexistence through cooperation is sought to serve the requirements of both civil and military aviation alongside sustainable wind energy generation. Consideration of reserved aviation regulation policy areas will be required, and engagement with, and support from, UK Government departments is essential.

There are several existing groups that are already facilitating collaboration between key stakeholders and the onshore wind sector, such as the Aviation Lighting Working Group (AvLi), the Onshore Wind Aviation Radar Delivery 2030 Group (OnWARD 2030) and the Aviation Management Board (AMB) for communications, navigation and surveillance (CNS) technology. These groups will remain the vehicle through which the commitments outlined here will be developed and implemented and will ensure ongoing engagement with relevant UK Government departments.

The consultation zone of the Eskdalemuir Seismic Array (EKA), which extends into Northern England, represents around 10% of Scotland's total land area and has the potential to support an additional minimum 2.5GW of wind energy. However, the Ministry of Defence (MOD) safeguarding requirements applicable to the EKA have resulted in limited development across the consultation zone since January 2018.

Collaborative action to support onshore wind

- By the end of 2023, collaboration between key stakeholders will deliver the results of a comprehensive national survey establishing the extent of aviation-related issues associated with onshore wind farm development and permitting. This critical evidence base will help identify the key challenges and allow all stakeholders to prioritise and focus on the best practicable solutions, for the short and long term.
- By the end of 2024 the same collaboration will publish details setting out a proactive, transparent, and consistent approach to the management of aviation issues relating to onshore wind developments, seeking to establish fair and equitable deployment and

funding of aviation mitigation solutions. In addition, the collaboration will consider future financial implications and contractual arrangements in respect of mitigation implementation.

Sector action to support onshore wind

- Following on from, and considering the results of, the national aviation issues survey identified above, we will work with stakeholders to support the execution of a market survey on existing and emerging wind-farm-tolerant surveillance systems and their costs that will support the delivery of enduring solutions. This will be delivered by Q1 2024.
- We will collaborate with regulators and Air Navigation Service Providers (ANSPs) to review and optimise Instrument Flight Procedures (IFPs) to accommodate maximum wind farm capacity while maintaining safe airport operations.
- We will collaborate with the aviation sector, civil and military, to identify mutually-acceptable mitigation solutions, considering the need for transparent, fair and equitable processes, and reduced costs, while ensuring safe airspace use and programme urgency. CNS technology developments and the UK Airspace Modernisation Strategy will also be considered.

Government action to support onshore wind

- By July 2024, we will finalise and actively promote the Aviation Lighting Assessment Guidance and ensure its implementation through the ECU, aligning safety with planning considerations.
- Where necessary, we will engage with UK Government to highlight and seek to address reserved matters regarding aviation regulation and defence requirements with the aim of seeking active participation in support of the delivery of this sector deal.
- We will support and help ensure fair and equitable outcomes in line with the Sector action to collaborate and innovate to find mutually acceptable solutions to technical, programme and commercial challenges.
- Via the Eskdalemuir Working Group, we will work collaboratively with the MOD to finalise a new approach to seismic noise budget management which will include reaching an agreement with the MOD regarding their acceptance of technical studies being conducted on behalf of Government, and to develop new guidance, with a view to enabling the development of a new safeguarding approach and management tool. This new approach will aim to support the consenting of projects via deliverable suspensive conditions, if necessary, that provide appropriate protection to MOD while maximising efficient wind energy generation. Guidance for the onshore wind sector will be issued for public consultation no later than January 2024.

Implementation and governance

The key milestones to be delivered by this sector deal are outlined in the table below, showing associated dates and responsibilities.

When	What	Sector	Government
End 2023	SG partner agencies to participate in the CWIC initiative		✓
	Establish working group for standardising EIARs	✓	✓
	Review how the baseline information requirements for EIAs of repowering or life extension can be appropriately optimised	✓	✓
	Complete onshore wind pipeline analysis to 2030	✓	
	In cluster areas, cooperate with other developers on interconnected planning and environmental considerations	✓	
	Highlight the ambitions of the new determination timescales for S36 applications to statutory consultees		✓
	Complete national survey on aviation-related issues for wind farms	✓	✓
Early 2024	Seek opportunities for clustering O&M facilities	✓	
	Publish statistics on local content in the supply chain and O&M arrangements of projects	✓	
	Collaborate with CWIC to facilitate publishing and support its commitments	✓	
	Update guidance on peatland management and restoration	✓	✓
	Establish a central repository mechanism for environmental monitoring data	✓	✓
	Contribute project and monitoring data to the central repository	✓	
	Issue clear guidance to developers and planners on expectations on environmental protection and enhancement		✓
	Publish analysis of expected abnormal load movements to 2030	✓	
	Publish survey of existing and emerging wind farm tolerant surveillance systems	✓	

When	What	Sector	Government
Early 2024	Issue consultation on guidance on Eskdalemuir management approach		✓
	Proactively help manage the connection queue	✓	
Mid 2024	Establish a working group to examine skills gap to delivering 2030 ambitions and publish a paper setting this out	✓	✓
	Publish a strategy paper on supply chain development and business diversification and transition opportunities		✓
	Collaborate on a national approach to measuring and evidencing biodiversity enhancements	✓	✓
	Establish working group to examine learnings from Hagshaw cluster	✓	
	Agree and publish template formats for S36 consents	✓	✓
	Publish proposals to make additional resource/training available for consenting purposes	✓	✓
	Promote the timely discharge of pre-commencement planning conditions for construction-ready projects within six weeks		✓
	Develop consistent formats for S36 public inquiry reports and consultation responses		✓
	Agree plans to ensure timely and properly resourced process for wind turbine component transportation, based on expected pipeline	✓	✓
	Publish the Aviation Lighting Assessment Guidance		✓
Late 2024	Enhance the current skills and training provision by collaborating with further and higher education sector	✓	✓
	Commit to an appropriate number of apprenticeships, training opportunities and skilled jobs across the sector and related industries	✓	
	Publish a paper on the role that regulatory stimulus could play in driving increased circularity of materials		✓
	Establish collaborative approach to promoting supply chain opportunities to support increased local content	✓	
	Publish report on learnings from Hagshaw cluster	✓	
	Establish a standard approach to the financial management of community benefits	✓	✓

When	What	Sector	Government
Late 2024	Publish a framework of practical approaches to support and encourage community shared ownership models	✓	✓
	Look for opportunities to take a collaborative approach to co-ordinating community benefits	✓	
	Use agreed templates for S36 applications and accompanying EIARs	✓	
	Publish good practice guidance for oversail and overrun situations		✓
	Publish vision for onshore wind beyond 2030		✓
	Publish details for a more proactive, transparent and consistent approach to aviation-related issues	✓	✓
Early 2025	Aim to determine onshore wind S36 and S36c applications within the timeframes set out		✓
	Meet annually to examine data on consenting timelines and any actions needed	✓	✓
By 2030	Establish a specialised blade treatment facility	✓	
	20GW of operational onshore wind in Scotland	✓	✓

Ongoing governance

Oversight and governance of the Scottish Onshore Wind Sector Deal will be led by the Scottish Onshore Wind Strategic Leadership Group (SLG).

The SLG will meet once a quarter. It will set the strategic direction for the sector and will be accountable for the overall delivery of the sector deal, including review and approval of the work programme and, if relevant, any budget allocations.

The SLG will initially consist of the existing six theme leads plus the industry representative role and will be co-chaired by Scottish Renewables and the Scottish Government.

The SLG will publicly report at least annually on the progress of initiatives, including the forecast of operational onshore wind to 2030 and beyond, and will answer to the Scottish Government.



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