Onshore Wind Supply Chain

Supply Chain Pack - Onshore Wind in Scotland





Introduction

Vattenfall's onshore wind pipeline to 2030 is expected to see around 500MW of installed capacity built across a number of sites *subject to consent.

We are committed to making sure businesses across Scotland have the opportunity to understand and compete for the hundreds of contracts that lie within delivery of our onshore wind farms.

In this guide you will find out more about the likely timescales, a breakdown of the main packages of work, some information on the approach to contracting, as well as the chance to share your company details with us and send questions directly to our procurement team.

Apipeline to 2030

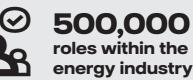


Creating the workforce of the future

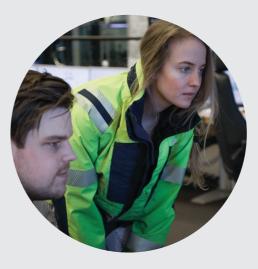
By 2050 it's expected that 500,000 roles within the energy industry alone will need to be filled to reach net zero in the UK.

Training, upskilling and transfer of skills from other industries will all be a part of the solution. The industry needs technicians, engineers, ecologists, surveyors, plant operatives - the breadth of opportunities is vast

We're committed to delivering a programme of apprenticeships across our pipeline of projects through the supply chain, and are looking for suppliers to work with us to train this future workforce. Share your ideas as we develop this programme of training opportunities.

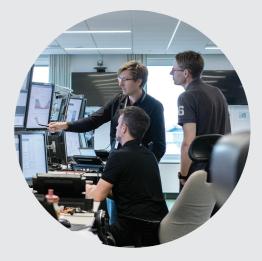


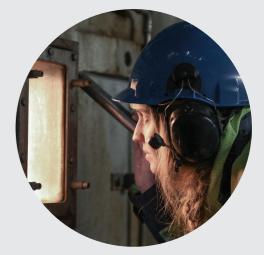












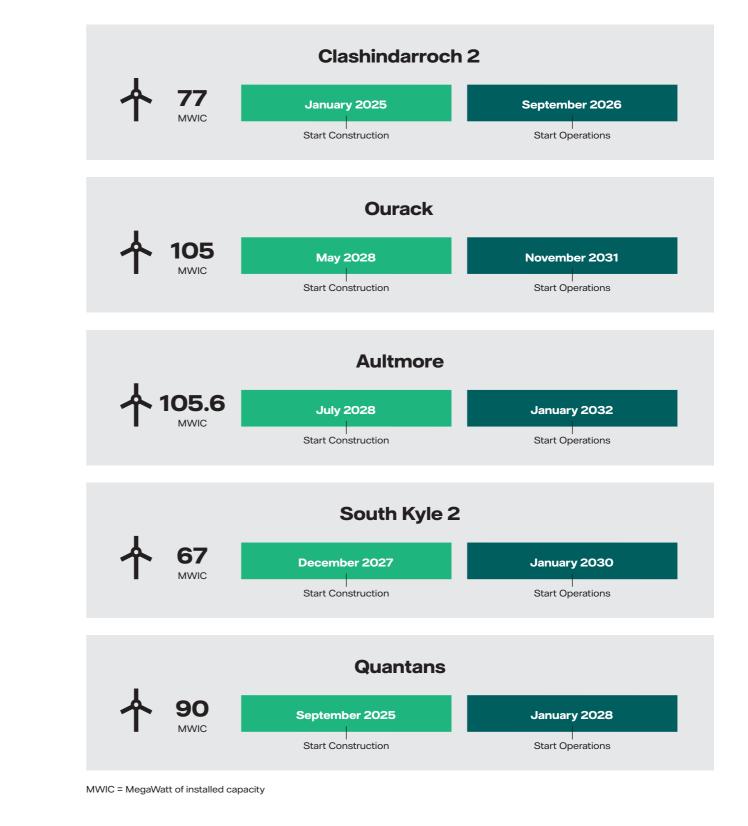
About Vattenfall

Vattenfall is a leading European Energy Company. We want to make fossil free living possible within one generation and are driving the transition to a more sustainable energy system through growth in renewable production and climate smart energy solutions for our customers.

Vattenfall in the UK - at a glance Clashindarroch II Edinbane Aultmore Aberdeen Ourack Muir Mhor 土土 **Edinbane Repower** Clashindarroch Aberdeen HT1 Musdale Shawfair Town Edinburgh South Kyle II Edinburgh Park South Kyle Ray **Quantans Hill** Hexham Battery@Ray South Lowfield Barrow-in-Furness Ormonde 土 Breckland Aldi Stirchley Norfolk Zone Swinford Mynydd Lluest y Graig ۳Ø Pen y Cymoedd Kentish Flats Ext **Brent Cross Town Kentish Flats** Battery@PyC London 👜 🚠 Ł **1** Pen y Cymoedd Thanet Mannington Ramsgate Hercules **Riverside Heat** Network Bristol City Leap Penzance • Technology type **Project status** 法 Hydrogen Battery Operational [™] Renewable energy park Construction ↑ Onshore wind Development Electrical connections Heat networks Vattenfall office location

Our pipeline of projects in Scotland

This indicative timeline is subject to planning consent, showing the potential timeline of opportunities coming up in Scotland for your company.







Onshore wind is an opportunity for companies of all sizes. Our work on our wind farms to date shows the scale of the opportunities for local companies and workers.

We are committed to making sure that we provide clear, open and transparent opportunities to work on our projects - whether an existing supplier or new to this exciting industry.

Your feedback is vital to make sure that we understand how we can continue to open up these opportunities to the Scottish supply chain.



Contracting Strategy

For the construction phase of our wind farm projects, we procure directly with Tier One contractors for the main packages of work - companies who can oversee and deliver a full package of work for the project. For companies interested in work within these main packages of work, by registering with our supplier portal, you can ensure that your company's interest in working on our pipeline of projects is highlighted to these Tier One Contractors.



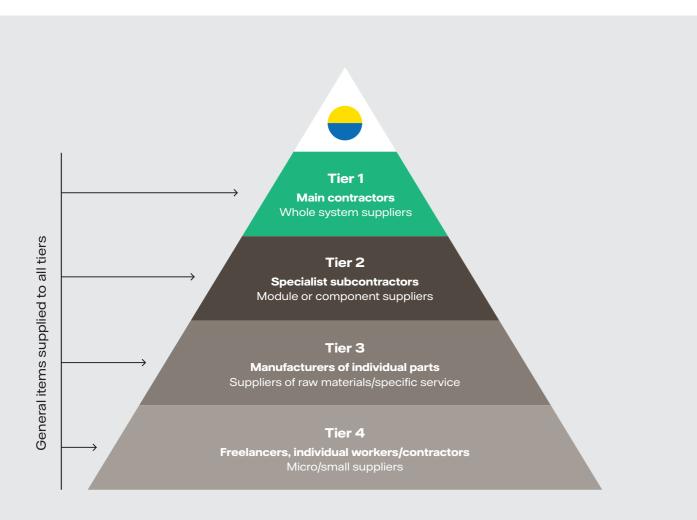




Register today!

C Navigate the chain

This illustration explains in more detail the structure of the main contracts in relation to building a wind farm, and where your company might fit in the supply chain. Who do you need to talk to?



Tier 1

- Work directly for Vattenfall. In overall charge of delivery of whole package of work.
- Will usually be a large, very experienced business which is financially solid.
- Must have a combined turnover which is 2-3 times the total value of the contract.

Tier 2

- Work for the main contractor. Contracted to deliver a specialised part of the works.
 - Will include both large and small companies.

Tier 3

 Work for specialist subcontractors. Provide a service or parts/material connected to the contract.

Main work packages during the construction phase of a wind farm



Civil and Electrical Engineering



Site Investigation and Ecological Services

Breaking down the packages of work:

Accommodation Agreegates Archeological assessment Batching plant Borrow pit identification **Building materials** Cable laying and supply Catering Coatings/Paint/Painters Community engagement Concrete formers Conduits Courier services Crane pads CSCS cards Data monitoring Earthworks Ecologists Electrical design Electrical installation **Electrical suppliers Emergency equipment** Engineering consumables Environmental management Equipment cleaning Events management Excavation works External platforms/stairs Felling and haulage Fencing Fibre optics Filming (inc drones) Fire training Foundation and track design

Foundation construct Foundation fixings Fuel storage and sup General storage Generator supply Geological surveys Geotechnical (drilling Geotextile supply GIS works Grid connection stud Habitat surveys H&S training Heavy crane hire HV equipment HV interface HV/LV electrical insp Platforms/stairs/ladd Land services Legal services Lighting Locksmith Mast decommission Materials testing Mechanical wholesa Media Met mast permitting, hardware Noise assessment Office equipment Onsite communicati Peat surveys Plant hire Ports/facilities PPE supply Recruitment Reinforcing steel Roadworks



Forestry works



Turbine supply and installation

| ction | Safety equipment | | |
|------------------|----------------------------|--|--|
| | Scaffolding | | |
| рру | Security | | |
| | Signage | | |
| | Site surveys | | |
| | Site/welfare | | |
| g and testing) | Snow and ice clearance | | |
| | Soil investigation | | |
| | Specialist road haulage | | |
| dy | Steel fixings | | |
| | Steel reinforcing design | | |
| | Telecomms | | |
| | Temporary bridging | | |
| | Timer processing | | |
| | Timber supply | | |
| pection services | Tool hire | | |
| ders | Track/cable layout design | | |
| | Traffic management | | |
| | Trenching | | |
| | Vehicle maintenance/repair | | |
| | Vehicle hire | | |
| ning | Waste management | | |
| | Water supply | | |
| alers | Water/flood assessment | | |
| | Water/pollution managment | | |
| g, installation | Welding | | |
| | Welfare facilities | | |
| | Wildlife surveys | | |
| | Wind assessment | | |
| ions | | | |



Construction phase

Tier 1 Contractors

Pre-Qualified Tier 1 Contractors will be assessed against responses to Vattenfall questionnaires on:



Once assessed, contractors are asked to sign up to Vattenfall Code of Conduct for Suppliers and Partners, enter into NDAs and adhere to GDPR guidelines.

Contractors who successfully complete the PQQ process are approved to tender on Vattenfall projects and are valid for a period of 3 years.

Registration on Vattenfall Supplier Bank is audited by Achilles.

Roles within the construcion phase

| Quality | Forestry | Turbines | Environment | Project Management |
|--|--|--|---|---|
| Health and safety officer Site engineer General foreman Machine operator Dump truck operator Gangers and labourers Cleaner Office admin Site admin/costing General operatives Plant fitters Concrete mixer driver | Forest machine operatives Chainsaw operatives Harvester operatives | Contractors rep Project manager Construction manager HSSE manager/ officer Quality manager Project planner Project engineer Installation manager Lifting supervisor Transport and logistics Commissioning SCAD engineer Electrical engineer Wind and site specialist Wind turbine engineer | Ecological clerk of works Ecologists Hydrologists Archaeologists | Project managers Project planners Financial controllers Health and safety officers Risk managers Budget managers Stakeholder engagement Communication and liaison professionals Lawyers |





Simplified Solutions for StartUps and SMEs





Simplified terms to improve collaboration with start-ups, niche companies, or small businesses.



Our simplified terms are designed to make it more attractive to co-operate with us and include, for example, shorter payment terms.



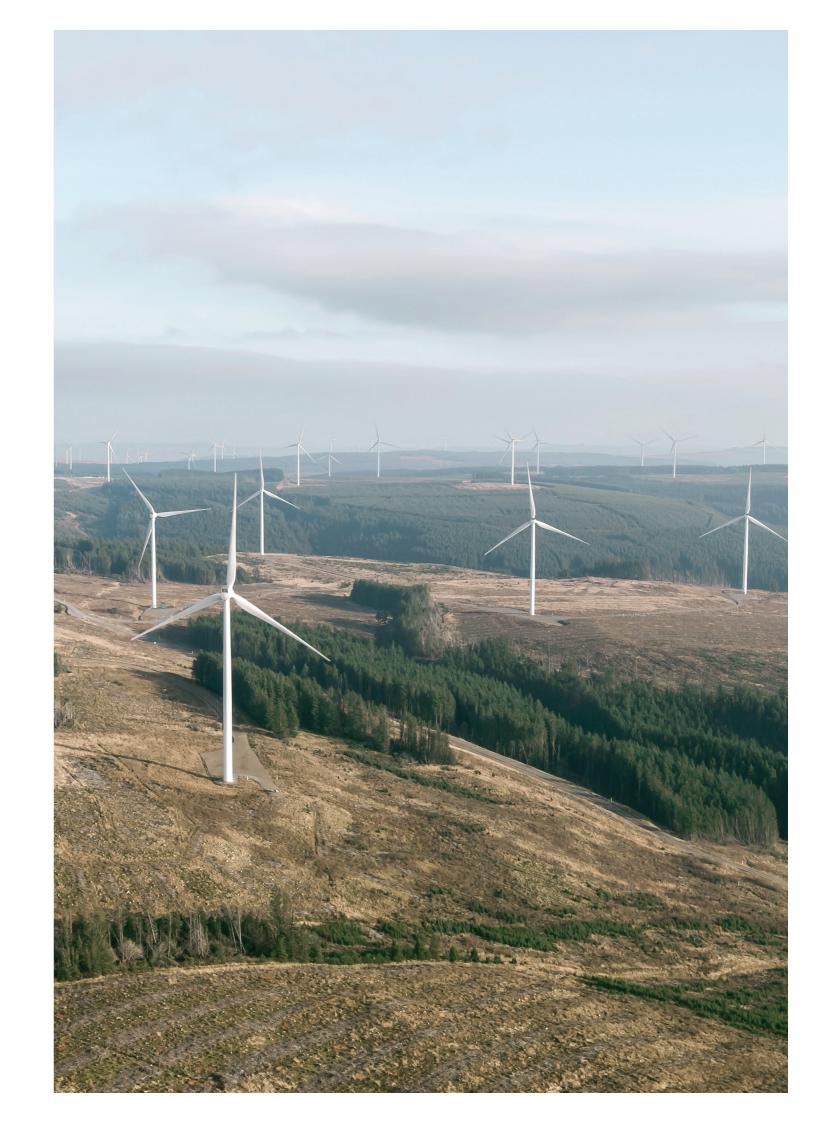
These terms are only available for innovative purposes for companies with an annual turnover <€1 million and with fewer than ten employees.



For companies who don't fit these criteria, building relationships, it is likely that you should consider contracting directly with Tier One companies.



We will also circulate attendance and observation from events such as supply chain events to Tier One contractors, and also expect them to report contractually on their efforts to engage with local suppliers.



Innovation

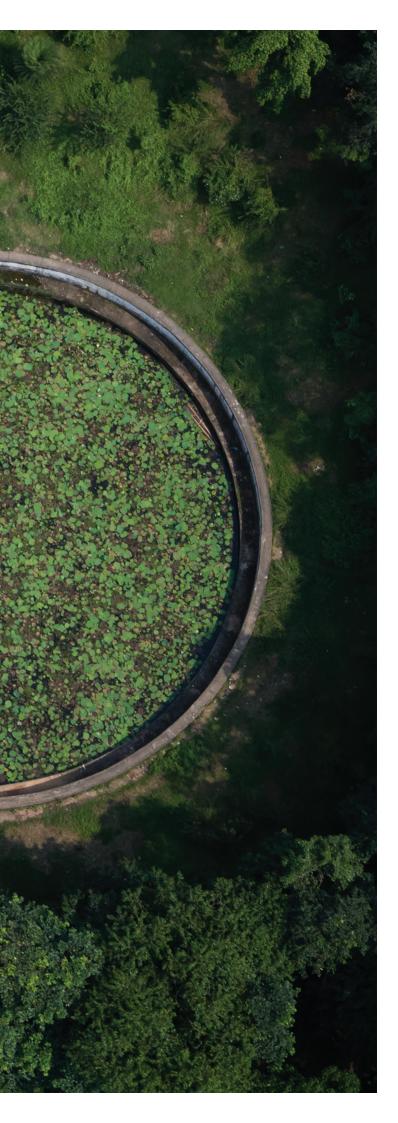
Vattenfall welcomes ideas and opportunities and invites companies (including start-ups), individuals, Governments, and NGOs to collaborate within and outside our industry.

This will be necessary to reach our goal of fossil free living within one generation.

These could be ideas brought to us for specific collaboration or advantages highlighted to us during a tender procurement exercise.

We particularly welcome innovations that may reduce the levelized cost of energy or improve our environmental impact on climate, circularity, and biodiversity.

Examples could include fossil-fuel free fuels, lowcarbon concrete or steel, materials reduction or recycling, materials innovation, or resource efficiency.



Register your company today.





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