DOGGER BANK
WIND FARM
BY

sse equinor vårgrønn

Dogger Bank Wind Farm

Powering jobs and growth through offshore wind

About Dogger Bank

Dogger Bank Wind Farm is being constructed in three phases located between 130km and 190km from the North East coast of England at their nearest points. The wind farm's onshore infrastructure is located near Redcar in the Tees Valley and South Shields in South Tyneside, as well as near Beverley in East Riding of Yorkshire.

The wind farm is being developed by SSE, Equinor and Vårgrønn. It will have a total installed capacity of 3.6 GW. The project is being developed in three 1.2 GW phases. At the time, Dogger Bank was recognised as the world's largest offshore wind financing to date.

SSE Renewables is the lead operator for the development and construction of Dogger Bank Wind Farm. Equinor will be the lead operator of the wind farm on completion for its expected operational life of around 35 years. Vårgrønn provides specialist offshore wind expertise to the project.

Once operational, it will have the capacity to power more than six million homes annually [1] through clean energy generated in the UK, helping both to support national energy security and decarbonise our electricity system, enabling the avoidance of over seven million tonnes of carbon dioxide equivalent in its first year of full operation.[2]

In 2019, all three phases secured Contracts for Difference in the UK Government's Allocation Round 3.

The three phases are:

- Dogger Bank A (1.2 GW)
- Dogger Bank B (1.2 GW), and
- Dogger Bank C (1.2 GW)

Unless otherwise stated in this report, Dogger Bank Wind Farm refers to all three phases.

About this report

This report describes the socio-economic benefits and wider social value of Dogger Bank Wind Farm. It summarises two independent reports and reflects on key lessons learnt. The two independent reports are:

- BVG Associates, who were commissioned by Dogger Bank Wind Farm to assess the economic impact of the wind farm; and
- Ekosgen, who were commissioned by Dogger Bank Wind Farm to evaluate the activities of the wind farm's community investment programme during construction.

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1 6.42 million homes powered per annum claim based on latest Typical Domestic Consumption Values (TDCV) at medium consumption, 2,700kWh per household; (Ofgem, May 2023), typical 55% wind load factor, and projected installed capacity of 3.6GW.

2 Quoted 7.7 million tCO2e reductions per annum based on expected annual output against average 448 tCO2e per GWh for all non-renewable fuels in 2024: Digest of UK Energy Statistics (DUKES): electricity - GOV.UK

Total contribution to UK GDP
£6.1 billion

Local economic boost
£2.4 billion

UK direct and indirect jobs
70,510 FTE years

Local direct and indirect jobs
28,120 FTE years

Foreword

‘Pioneering’ and ‘world-leading’ are just some of the adjectives that spring to mind when we talk about Dogger Bank Wind Farm. Others include ‘challenging’, ‘powerful’, ‘complex’, but always ‘rewarding’. This report shines a light on the ways in which the hard work of thousands of people is expected to bring significant socio-economic benefits to the UK, beyond just powering six million homes with clean energy and supporting national energy security.

We talk a lot about the size and scale of the project but, behind the giant turbines and foundations, hundreds of km of cables and fleets of first-of-their kind vessels, are real people – from the people who work for companies manufacturing our components, to those who run guest houses for our contractors.

People have always been at the heart of everything we do on Dogger Bank Wind Farm. Even from the early days of planning, there was an inherent drive from everyone involved to see what value we could unlock through this extraordinary engineering achievement.

This report shows that we now know that £8.4bn will be spent in the UK by Dogger Bank, with the ripple effects felt throughout the country, from the Highlands of Scotland to the south coast of England - boosting the UK economy by £6.1 billion during its lifetime and supporting thousands of UK jobs over the next three decades.

Full-time equivalent (FTE) jobs supported across the UK by Dogger Bank are expected to peak at 3,600 over 2025. 1,500 of these jobs will be in the North-East of England and North Yorkshire and East Riding of Yorkshire. This is coupled with the promise of operation and maintenance roles averaging at 1,400 jobs per year for at least 35 years, supported by a stable pipeline of apprentices, and a range of careers – from wind turbine technicians to safety and marketing experts.

Many people have helped bring this project to fruition – by evidencing what has been achieved, we thank those thousands of individuals and share our lessons learned so that the successes and learnings from Dogger Bank can develop an even more valuable offshore wind industry for the UK in the years and decades ahead.

Key lessons learnt

- **The importance of certainty** The importance of having a stable pipeline of projects to facilitate the long-term market confidence required for supply chain investments at scale in the UK.
- **The doors clusters can open** The Energi Coast, North-East England’s Offshore Wind Cluster, opened both actual and virtual doors for local suppliers – even in the midst of the pandemic – connecting Dogger Bank suppliers with sub-suppliers, enabling real, local investment.
- **Unwavering safety culture** Even during world firsts, our commitment to safety and wellbeing was uncompromising, highlighting the importance of having a strong and robust safety culture – no matter the project.
- **Transformation through local collaboration** The transformative impact community benefit funds can have when working in collaboration with authorities and local stakeholders, on place-based issues.
- **Having the right partners** The importance of having trusted, open Joint Venture partners whose technical expertise coupled with deep commitment to people have made the project what it is today.

Oliver Cass,
Dogger Bank Project Director, SSE Renewables

Nicolas Bourgeois,
Senior Vice President, Asset Management, Vårgrønn

Kamala Hajiyeva,
Head of Dogger Bank Development, Equinor

A £6.1bn economic boost for the UK

The development and construction of Dogger Bank has generated a significant level of economic activity in the UK, and its operation will continue to do so for 35 years. To understand this contribution, Dogger Bank commissioned BVG Associates (BVGA) to undertake independent analysis to calculate the economic impact of Dogger Bank [1]. Investment in Dogger Bank drives economic activity through the value it adds to the economy (referred to as Gross Value Added (GVA)) and the years of employment it supports.

Delivering value for the long-term

Over the full lifetime of the project, from initial development to the end of its expected operational life, Dogger Bank is expected to generate £6.1bn of value for the UK economy, of which £2.4bn of economic impact is expected to be delivered for the North-East of England.

During the development and construction phases, Dogger Bank contributed around £1.3bn to the UK economy in total, with £408m being a contribution in the North-East. The peak level of economic activity in one year is expected to be in 2025, with an estimated total of £319m created across the UK. Of this, approximately £125m is expected to be generated locally. This is due to the high level of construction activity on the project during this phase involving significant work packages.

Dogger Bank's contribution to the UK's GDP is expected to be substantial during the operation and maintenance phase. During the expected 35-year operational lifespan of Dogger Bank, £4.3bn is expected to be invested across the UK, with £1.9bn of this local. Providing long-term investment confidence is essential to unlocking this economic potential across the UK.

	Lifetime	Development and construction		Operations and maintenance		Decommissioning	
Total UK Wide	**£6.1bn** of value	**£1.3bn** of value	**14,450** direct and indirect years of employment	**£4.3bn** of value	**49,260** direct and indirect years of employment	**£543m** of value	**6,810** direct and indirect years of employment
NE of England	**£2.4bn** of value	**£408m** of value	**4,770** direct and indirect years of employment	**£1.9bn** of value	**21,650** direct and indirect years of employment	**£136m** of value	**1,700** direct and indirect years of employment

1 To fully capture the impacts of this spending, the BVG's analysis uses the following key inputs: project specification; supply chain narrative, including activity further down the supply chain; costs of the wind farm; and salaries and employment, including activity that results from the spending of salaries (induced impacts).

Supporting UK jobs over the next three decades

Dogger Bank Wind Farm is expected to create approximately 70,150 full-time equivalent (FTE) years of employment in the UK across its lifetime. This is the equivalent to 70,150 people having a full-time job in the UK for one year or, on average, just under 1,600 people being employed full-time for the full 45-year period of 2019 to 2063, which covers the ramping up of project development through construction, operations and decommissioning – supporting a diverse range of careers, from technicians, engineers and welders to health and safety experts and marketing professionals

UK employment generated by Dogger Bank however isn't linear over its lifespan and depends on the level and type of investment over this period. The graphs below show the expected number of full-time jobs supported by Dogger Bank.

Development and construction

14,450 years of employment was or will be supported over the development and construction phase of Dogger Bank, which is the equivalent of 1,600 UK full-time jobs being supported every year for the duration of this period. The lowest year of employment during this time was in 2019, when just under 500 full-time jobs were supported, and with a peak of 3,600 full-time jobs supported in 2025, of which 1,500 full-time jobs were in the local area. This included workers directly employed on site, those employed through supply chain contracts, as well as the employment supported as a result of these workers spending their salaries. These job roles include project development roles, welders, quality controllers, technicians, and structural and design engineers.

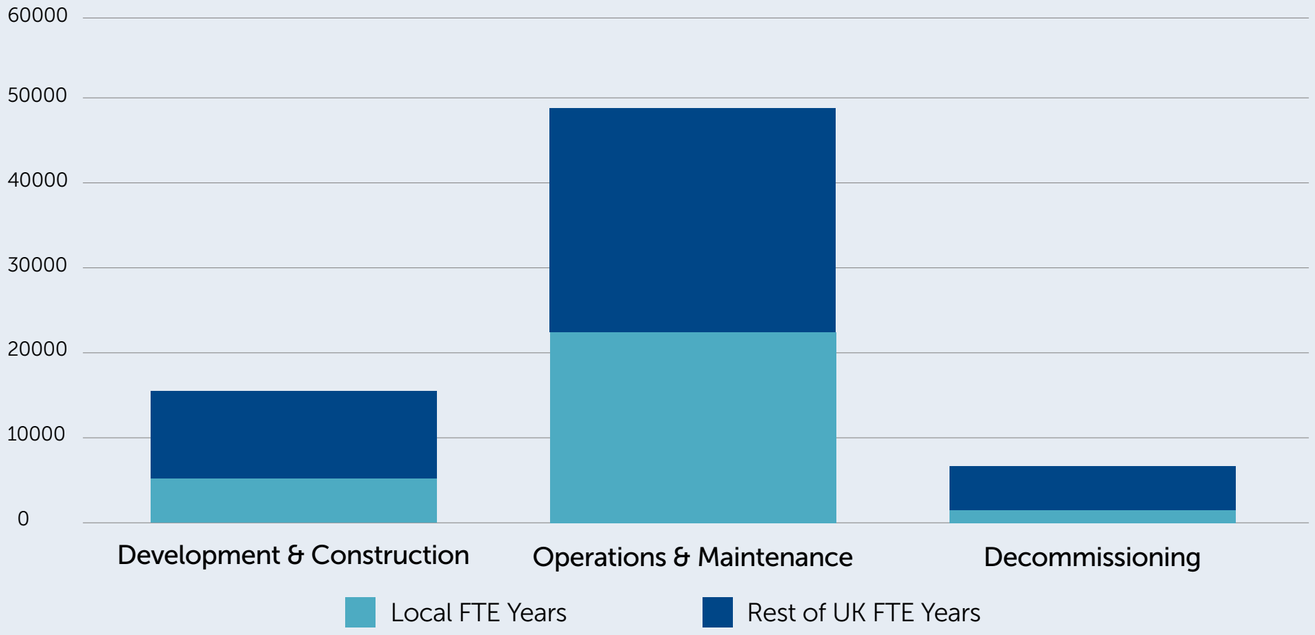
Operations and maintenance

A total of 49,260 years of employment is expected to be supported over the operations and maintenance period, which is the equivalent of 1,400 full-time jobs being supported every year for the duration of this period. This significant, long-term jobs boost is expected to drive the most direct local employment too, with around 615 full-time jobs supported in the North-East of England for the duration of this period. These job roles include vessel crews, engineers, logistics specialists, health and safety professionals, wind turbine technicians, and control room staff.

Decommissioning

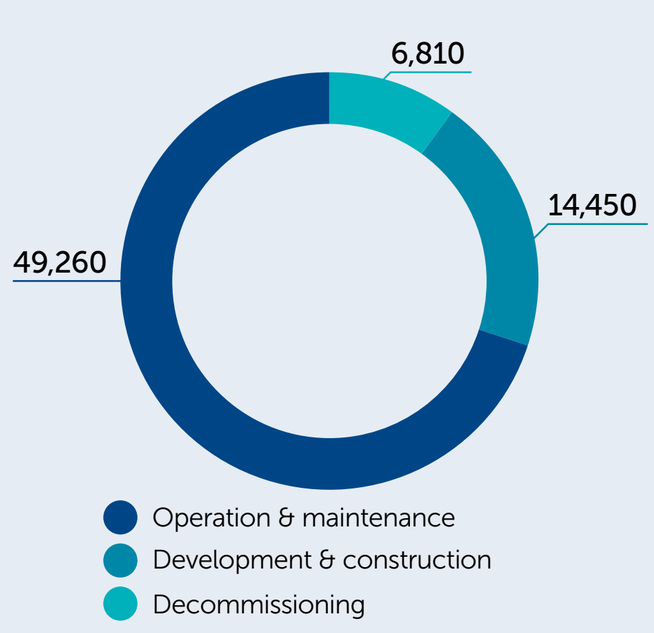
A total of 6,810 years of employment is expected to be supported over the decommissioning period, with the peak expected in 2061 with 3,300 full-time jobs supported. This ramping up of employment reflects the increase of activity associated with decommissioning, such as decommissioning engineers and environmental managers.

Long-term jobs for the UK and North-East



Total UK direct and indirect jobs

FTE years



Key factors for ensuring we have the right skills

Time to be strategic

The offshore wind sector has identified the skills and critical occupation it needs, including wind turbine technicians, engineers and technical managers. This, underpinned by the UK government's Clean Energy Workforce strategy, means the sector is now well-placed to focus its efforts and prioritise initiatives which support a skilled pipeline of workers in critical occupations for offshore wind.

Role of clusters

Dogger Bank's participation in the Energi Coast cluster opened doors for local workforces, helping to create local jobs. Looking ahead, these coastal clusters are also well-placed for the establishment of regional training hubs – focusing efforts on where projected workforces are needed.

Pace of change

The project faced challenges keeping up with the pace required to train people on new areas such as HVDC, as those with the know-how often don't have the time to train or develop learning programmes. Developing generic training materials would help to support this as will commitments made in the UK government's Clean Energy Workforce strategy to support education and training.

Incentivising flexibility

Government policies should incentivise flexible, place-based skills plans, to ensure project-level action on skills evolves with project and industry needs versus incentivising projects to make training and skills commitments too early in the project lifecycle.

Advancing skills and job quality together

Clean energy jobs also need to be good jobs. Not only is it the right thing to do, but the offshore wind industry will also be in increasing competition with other industries for in-demand skillsets such as construction or engineering skills. Job attractiveness therefore has a clear business case, alongside an ethical one.

For Dogger Bank this means:

Unwavering commitments to fair and safe work – including inclusion and diversity, worker voice, robust human rights standards, and an uncompromising commitment to safety. This has included bespoke human rights training specifically created for Dogger Bank with NGO Slave Free Alliance, reaching over 150 workers to date, alongside establishing a dedicated workforce appointed health and safety committee on all vessels, led by elected workforce representatives, empowering workers to actively drive improvements across the project.

Committing to the Living Wage for all workers – committing to paying at least the UK National Living Wage, for all workers – including those on vessels operating in the UK's Economic Exclusive Zone (i.e. up to 200 nautical miles from the coast).

Advocating and collaborating – in the UK through supporting the delivery of OWIC's People and Skills plan and raising standards in the supply chain. [1]

Engaging with workers and supporting social dialogue – including participating in industry-trade union forums as vital spaces to jointly deliberate conditions, training, and standards, leveraging and learning from effective social dialogue.

1 Offshore Wind Industry Council, People and Skills Plan, 2024: PowerPoint Presentation

Click here to read Jamie's apprenticeship experience

Building a pipeline through apprenticeships

Apprenticeships are both key to building a skilled workforce as well as essential to fill industry skills gaps. During the operation and maintenance phase of the wind farm, Equinor will have two apprentices per year, totalling 70 apprentices. Current apprentices are focusing on diverse areas ranging from offshore wind turbine technician roles, to marine, logistics, events and marketing, reflecting the diverse range of careers within the offshore wind sector.

Several of Dogger Bank's suppliers have also been able to strengthen skills development programmes because of the project. For example, Jones Bros, a civil engineering contractor, ran an apprenticeship programme on site. This included eight higher-level engineering apprenticeships, with six of these apprentices retained by the company.

Another supplier of Dogger Bank, Aberdeen-based North Star, operator of the largest UK-owned fleet serving the offshore industry, has also been able to use the project to support its cadet programme. North Star operates the largest cadet programme in the UK supporting careers in seafaring, marine engineering and as deck officers. Six cadets on North Star's programme were able to gain hands-on experience aboard Dogger Bank SOVs.

Click here to read more about Jones Bros apprentices

Sustained investment in the UK and the North-East

Around £8.4 billion will be invested in the UK and in the North-East of England over the lifetime of Dogger Bank.[1]

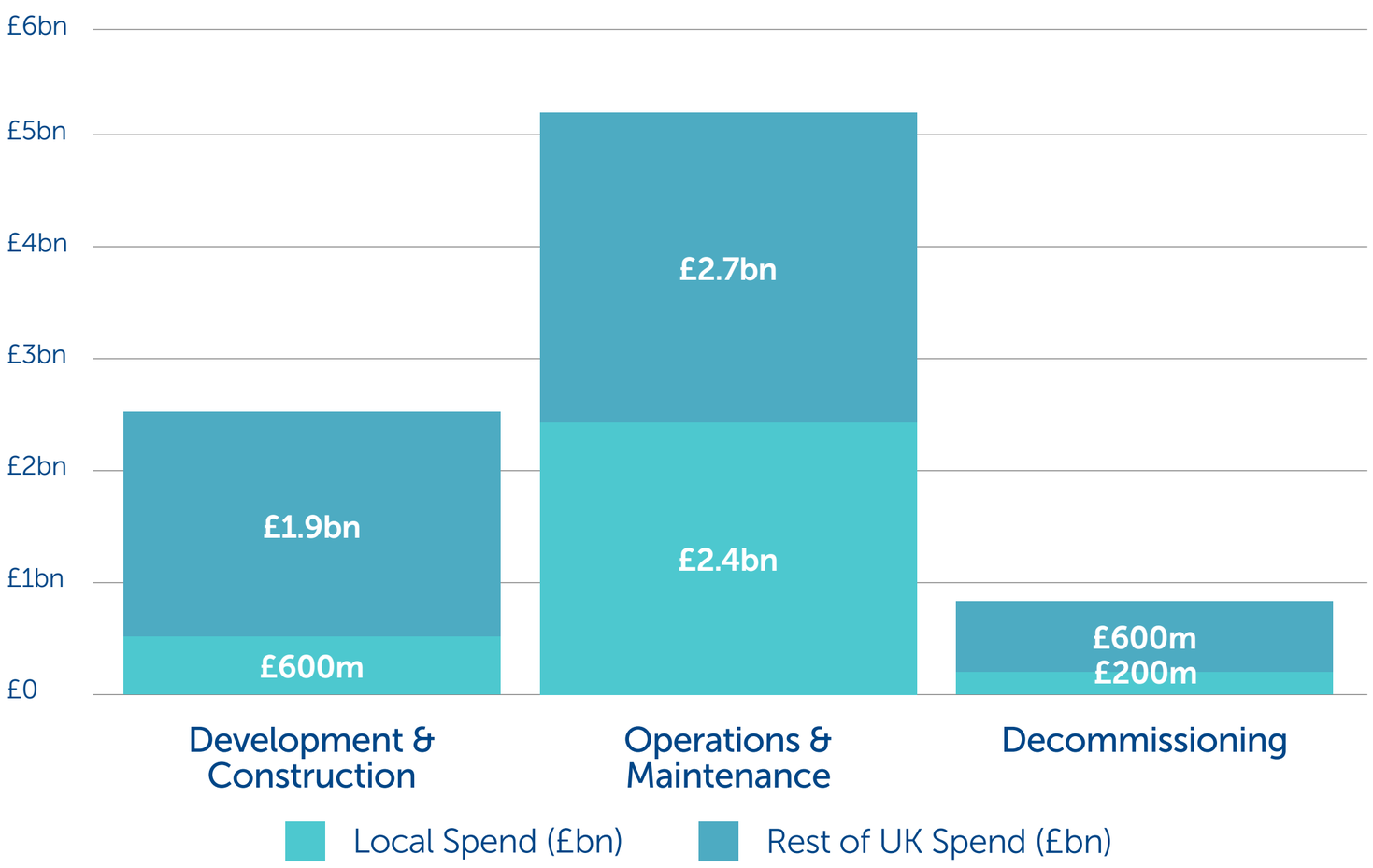
Companies all around the UK, especially in the North-East of England, are expected to benefit from the opportunities this investment is expected to create.

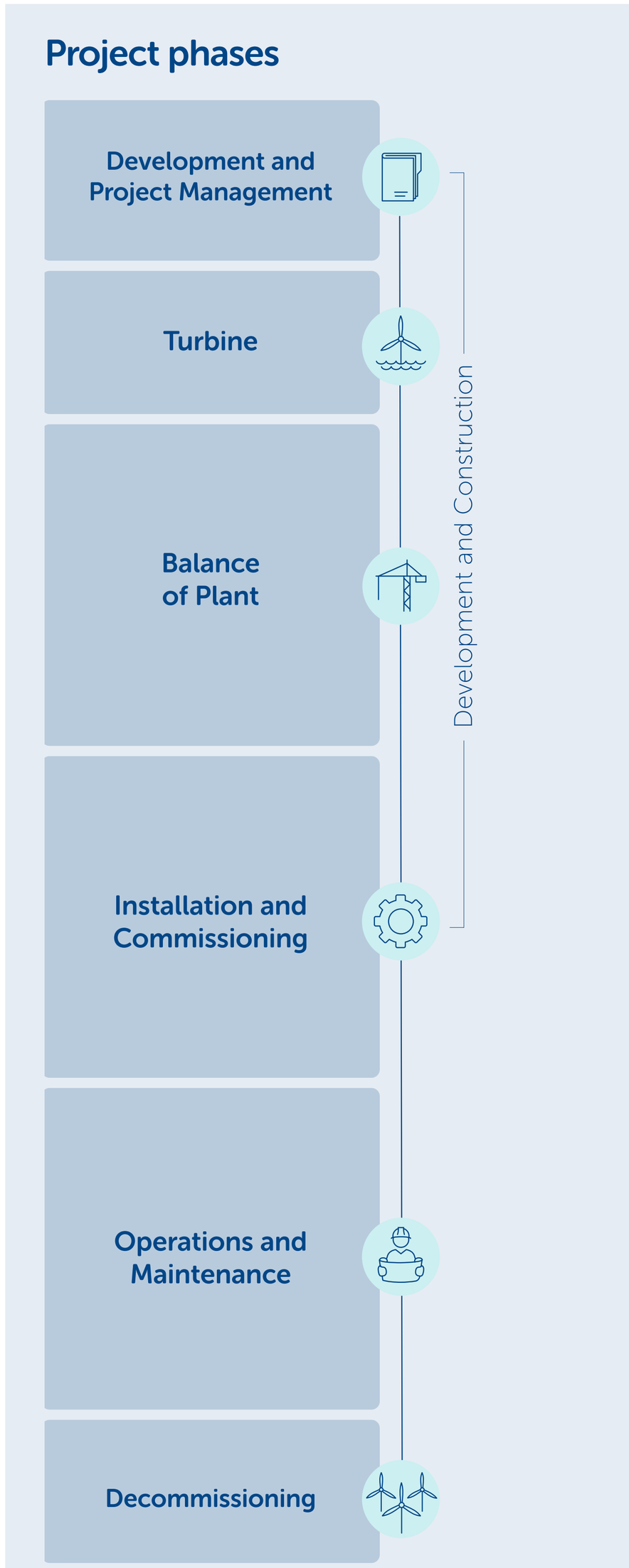
Direct spend with companies in the North-East of England and in the counties of North Yorkshire and East Riding of Yorkshire is expected to total just over £3 billion, which is 17% of the total investment in the wind farm.

Approximately £5bn is expected to be invested in other companies elsewhere in the UK across the lifetime of Dogger Bank.

Across all stages of Dogger Bank, efforts were made to utilise as many local and UK-based suppliers as possible.

Delivering £8.4bn accross phases of Dogger Bank





1 The method used to calculate this is based on BVG Associates offshore wind 'local' content methodology, which was developed for RenewableUK. It seeks to understand the supply chain in the lower tiers and produces a figure equivalent to direct and indirect GVA. More information is in the BVG Associates independent report, available here: https://doggerbank.com/wp-content/uploads/2025/11/Dogger-Bank-Wind-Farm-economic-impact-report-by-BVG-Associates.pdf

Delivering investment across the UK

The **operations and maintenance (O&M)** phase is expected to see the most significant investment and utilisation of local and UK-based suppliers. Some contracts have already marked industry milestones as the largest or first of their kind.

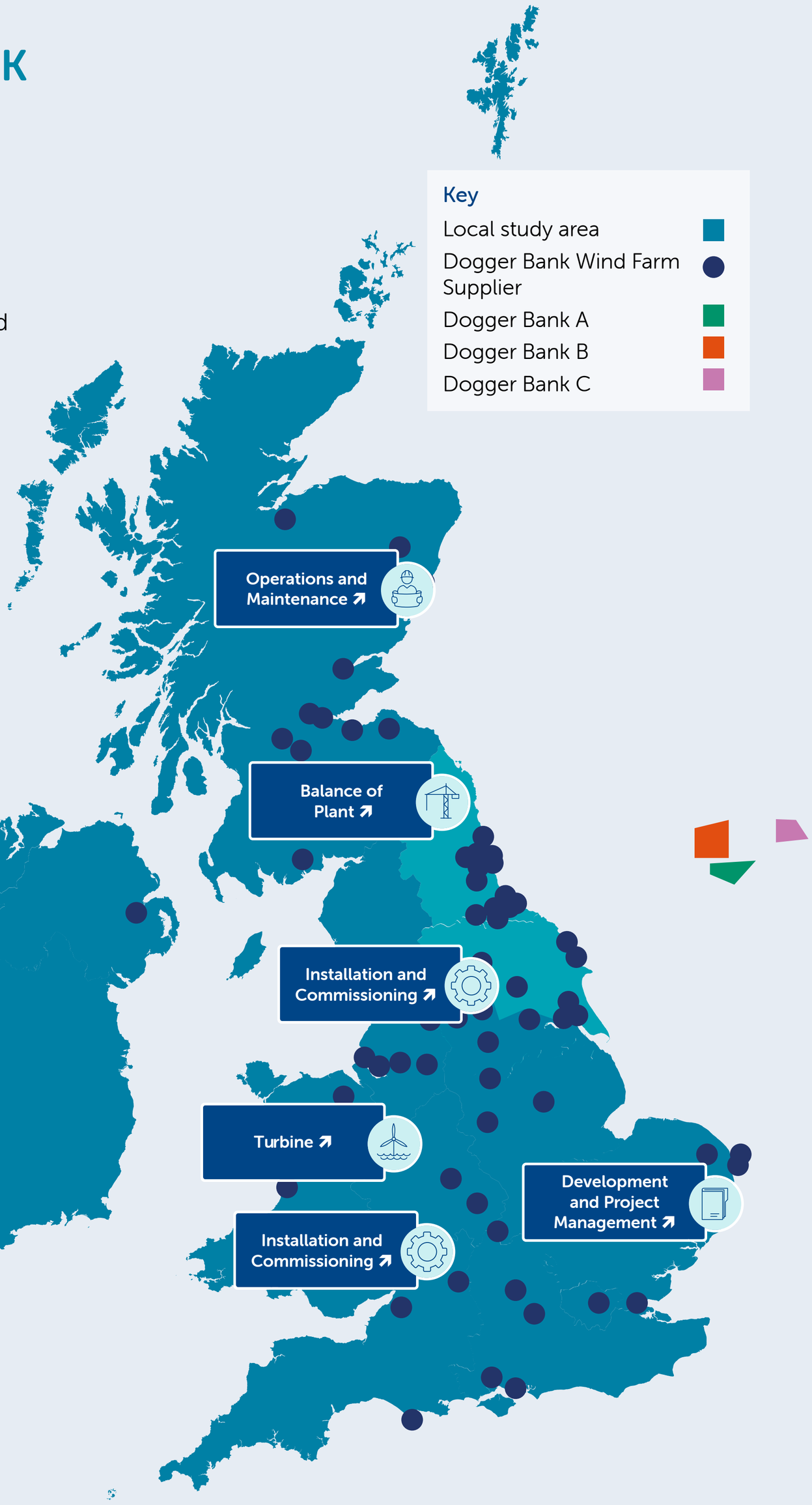
This reflects the significant, ongoing and long-lasting opportunities for local suppliers, workers and companies from the operation of wind farms – with the opportunities associated with Dogger Bank spanning over three decades.

The **development and installation phases** also saw investment in the UK supply chain, with pre-assembly activities taking place at Able Seaton Port in Hartlepool. Several UK and local companies were sub-contracted to support installation and commissioning works.

The **development and project management** phase were predominantly led from Scotland, from within the SSE Renewables offices across Perth and Glasgow, complemented by Equinor and Vårgrønn employees based in the UK and Norway.

Other phases, notably the **turbine supply** and the **balance of plant**, saw several supply chain packages go to established companies with proven experience in Europe or Asia. UK sub-suppliers also played a key role, especially across the balance of plant package of works.

Click on the map to learn more about Dogger Bank's suppliers during each phase



Dogger Bank's drive for more local content

- **Supplier contractual requirements:** Placing contractual obligations on all project suppliers to consider and provide opportunities for local content, particularly for SMEs.
- **Supply chain events:** Hosting several supply chain events throughout the construction and operation phase, including 22 meet the buyers events, many of which took place online during covid.
- **Supply chain portal:** Establishing a supply chain portal to allow companies to register their interest in contracts on the construction and operation of the wind farm.

Connecting with local sub-suppliers
The critical role of the Energi Coast Cluster [1]

Energi Coast, North-East England's Offshore Wind Cluster (Energi Coast), facilitated by NOF [2], played a key role in helping Dogger Bank tap into local talent. Dogger Bank was able to use the cluster to facilitate introductions and connections between its Tier 1 suppliers and local sub-suppliers, ranging from the large to small-medium sized. For example, during the covid pandemic, the cluster organised online supply chain events on behalf of Dogger Bank, which were attended by its main suppliers. During these events, key business relationships were formed between Tier 1 suppliers such as Sif, Smulders, and DEME, with local suppliers, such as South Tyneside-based manufacturer Metec UK, and Stockport-based Hughes Subsea support services.[3] One of the key successes behind the cluster is its funding model which enables SMEs to participate for free in its networking events, facilitating investment and business connections.

1 About - Energi Coast
2 NOF - Helping to make valuable connections in the global energy sector
3 South Tyneside manufacturer wins big on offshore wind - Dogger Bank Wind Farm

What is needed to further advance the UK supply chain?

- **Continue to focus on clusters:** The UK and its established industries including oil and gas and maritime are well-placed to continue to provide world-leading services to the offshore wind sector enabling their highly skilled workforce to transition into clean energy if they choose to. However, this will only happen through continued enhanced focus on offshore wind clusters in strategic coastal areas. These create opportunities to ramp up UK supply chains to support the clean energy sector, while also exporting goods and expertise worldwide. Ports remain vital to maximise these opportunities, as set out in the UK's Industrial Growth Plan.
- **Industry collaboration:** The Dogger Bank partners will continue to play an active role in delivering the Offshore Wind Sector Deal commitments through involvement in the Offshore Wind Industry Council (OWIC). Dogger Bank has also been a strong supporter of the Offshore Wind Growth Partnership (OWGP), playing a key role in advancing offshore wind in the UK.
- **Raise awareness for supply chain investment opportunities:** Other national initiatives which invest in supply chains, matched by investment opportunities enabled by Great British Energy and The Crown Estate, will also play an important role in the years to come. Key now is to ensure these opportunities are known to the local supply chain, through resources such as OWIC's UK Offshore Wind Supply Chain Investment Guide. [4]
- **Strengthen and enhance upfront coordination:** In a challenging commercial environment, good intentions coupled with political will isn't always sufficient to get UK investment at scale over the line. This was, for example, the case for potential component factories to support projects like Dogger Bank. However, with more enhanced and upfront coordination in advance, it should be possible to line up the processes which need to fall into place to enable investment - whether that be manufacturing orders, policies, or stakeholder buy-in.
- **Long-term investment confidence through stable project pipelines:** Continue the progress being made to ensure a stable pipeline of projects through confirming annual auction capacities is an important step in the right direction. This helps to facilitate the long-term market confidence required for supply chain investments in the UK.

4 OWIC, Baringa, Renewable UK: rukowic-offshore-investment-guide-digital.pdf

Building the Workforce of the future

A £1m community was fund set up during the construction phase of Dogger Bank, with an additional £25m commitment to support coastal communities across the north and North-East of England over its planned 35-year operational lifespan. Split between the areas of East Riding of Yorkshire, Redcar & Cleveland and South Tyneside, the £1m package of financial support focused on enhancing science, technology, engineering and maths (STEM) education, to help young people prepare for life in a net zero world.

Dogger Bank Wind Farm has the following commitments to its community

To support the developments of the communities living near our sites

Take a responsible approach in the areas we operate

Understand that every country and every community is different

Develop a tailored package of support based on the local need

Supporting national and local STEM ambitions

The community fund's focus on STEM supports both national and local needs. It contributes to key areas of UK policy, including the UK Science and Technology Framework, the UK Government's Clean Energy Workforce Strategy, the UK Industrial Strategy, and the Offshore Wind Sector Deal, as well as responding to local educational needs. Specifically, this included low educational attainment profiles, a gender divide in STEM apprenticeships, and below-average enrolments in higher education.

To tackle this challenge, it was agreed after extensive engagement with local authorities and skills experts for the fund to focus efforts on supporting primary school ages. This is in the recognition that decisions such as pursuing STEM subjects are often made well before secondary school. This approach to focus on primary and nursery school interventions instead of secondary school ages is socially innovative, as well as driven and shaped by local priorities and needs.

Understanding the impact of the £1m construction fund

Each local authority area worked with a STEM delivery partner to assist them in delivering programmes based on needs.

The £1m construction fund supported more than 36,000 young people across 204 schools, provided 62 university scholarships, and provided 87 grants to local community groups.

An independent report by Ekosgen outlines further social impacts enabled by the fund, including strengthened employer/educational engagement, increased STEM capacity within schools, raised awareness of female role models, and raised aspirations.[1]

36,000
Young people supported

204
Schools involved

62
University scholarships

Click here to read the report

Looking towards the £25m operational fund

The £25m operational fund will continue to focus on developing local skills and raising young peoples' aspirations, to meet local priorities identified in consultation with the local education authorities in each key community. It will be reviewed periodically in collaboration with local educational experts to ensure it meets the needs of local communities.

The fund will continue to focus on primary school interventions, reflecting the increasing importance and growing realisation that securing the UK's STEM pipeline will require pre-secondary school engagement. In addition, the operational fund will provide 30 scholarships per year, providing funding towards the cost of further education for local university students studying STEM subjects.

Dogger Bank funded programmes will also continue to connect local businesses and schools. This is already helping to plug gaps in the local area to enhance community engagement with the private sector, providing young people with real and clear opportunities. Recognising the importance of building resilience within communities, the fund will also continue to support community projects and local organisations with grants of up to £1,000

Collaboration in Action
Advancing skills through supply chain collaboration

Dogger Bank's suppliers also play a key role in supporting education and skills development in the region. GE Vernova, Dogger Bank's turbine manufacturer, spent a significant number of hours volunteering in key community initiatives in Redcar and Cleveland, East Riding of Yorkshire, and South Tyneside. In 2023 and 2024, GE Vernova spent over 460 hours volunteering in the North-East of England. More than 60% of these volunteering hours were focused on STEM related initiatives, such as StemFEST and GirlsGetSet, both organised by the North-East STEM Hub, and the Building Our Futures Programme.

As part of these efforts, GE Vernova also organised a site visit for 30 students from Grangetown Primary School, where they had the opportunity to explore the assembly site of the turbines. The company has also appointed local apprentices from Tees Valley, including 14 new offshore wind turbine generator technician apprentices in 2023.

1 Ekosgen report

Learning in action across the three authority areas:

South Tyneside

Little inventors

Creative STEAM [1] programme – design challenge based on different themes each year, winner of best STEM initiative at the Engineer Awards 2024.

Sunderland Software City

Digital Careers – increasing understanding of the sector and meeting local businesses for both primary and secondary schools.

Science Buddies

STEM clubs in primary schools to enhance learning.

↖ Hear from Cllr Tracey Dixon, Leader of South Tyneside Council

Redcar and Cleveland

RCVDA - Building our Futures

A career confidence programme for primary schools focused on the transition to secondary. The programme delivers six sessions to pupils over three months, with Continuing Professional Development for teachers to build confidence on careers. It also fosters links with local employers, enabling discussions on career paths and school visits to local businesses.

↖ Hear from Helen Ede, Headteacher at Lakes Primary

East Riding

Early Excellence

STEM outdoors learning for nursery age children to make STEM a core part of life and learning.

Complete Careers

Careers network for teachers to build confidence as career leads.

UKSTEM - Practical STEM

Professional development sessions in schools with renewable energy learning kits provided for schools.

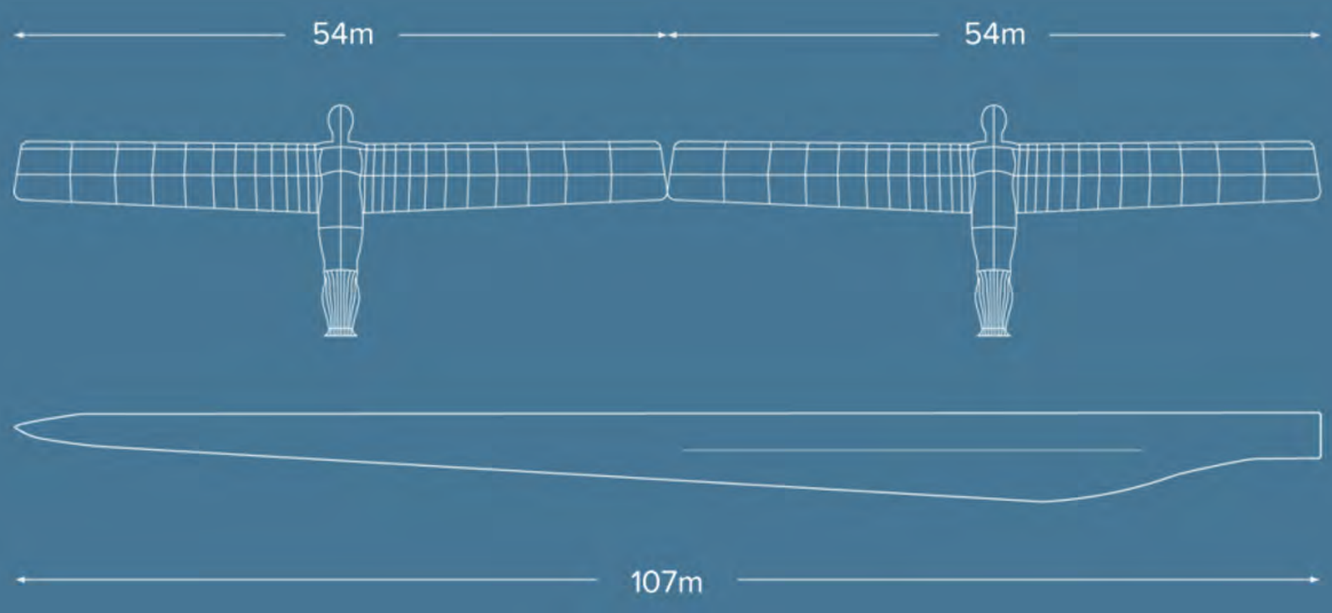
↖ Hear from Nikki Walters, Head of Education Services & Director, Early Excellence

Lessons learnt

- **Engaging with local authorities:** Impact can be achieved when industry works together with local authorities and communities to create opportunities for coastal communities to flourish.
- **Having the right partners**: The importance of leveraging and utilising local delivery partners, who are experts in their own areas and can tailor provision to local needs.
- **Responding to stakeholders:** Adjusting programmes and engagement, where required, based on changing needs. For example, stakeholders requested further integration between the wind farm and the funded programmes, which the project responded to.
- **Removing participation barriers**: The importance of reducing barriers to participation. For example, transport bursaries were introduced responding to feedback that schools were unable to pay for transport to access some learning opportunities.
- **Measuring impact to make informed decisions:** The Ekosgen report has enabled an impact-driven approach to inform the operational fund. This approach has been commended by the World Bank.[2]

1 Science, Technology, Engineering, Arts, and Mathematics

2 The Strategic Value of Community Benefits in Offshore Wind Development | ESMAP



Spotlighting innovation
Concluding reflections on a series of firsts

Pushing technological boundaries

Dogger Bank Wind Farm introduced some of the world's most powerful turbines certified to date at 13 and 14MW, with blades twice the wingspan of the Angel of the North.

Bringing in suppliers:

The project hosted supply events specifically dedicated to innovation to help raise supply chain awareness and worked closely with the North-East Technology Growth Programme[1] to encourage market entrance for both large and small local suppliers.

Testing innovation in the UK:

The project worked with Blythe-based ORE Catapult to do the testing of the GE's nacelles and turbines, testing world-first technology in the UK.

Sharing the lessons learnt from innovation:

Dogger Bank has been at the cutting edge of new technological advancements, which comes with a duty to share learnings – which have been captured by an independent Imperial College report.[2]

1 TIGGOR | Technology Growth Programme | ORE Catapult

2 Dogger-Bank-Final-Report-16-April-2025.pdf