



NORTH FALLS

Offshore Wind Farm

Outline Skills and Employment Plan

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Glossary of Acronyms

| | |
|-------|---|
| APS | Annual Population Survey |
| BRES | Business Register and Employment |
| DCO | Development Consent Order |
| DESNZ | Department for Energy Security and Net Zero |
| DfE | Department for Education |
| CfD | Contract for Difference |
| EEEGR | East of England Energy Group |
| EPN | The Essex Provider Network |
| ES | Environmental Statement |
| FEDEC | Federation of Essex Colleges |
| FTE | Full Time Equivalent |
| GGOW | Greater Gabbard Offshore Wind Farm |
| GVA | Gross Added Value |
| GW | Gigawatt |
| IMD | Index of Multiple Deprivation |
| IWMF | Integrated Waste Management Facility |
| Km(s) | Kilometre(s) |
| LEP | Local Enterprise Partnership |
| LSIP | Local Skills Improvement Plan |
| LSOA | Lower Layer Super Output Area |
| LQ | Location Quotient |
| MW | Megawatt |
| NALEP | New Anglia Local Enterprise Partnership |
| NEET | Not in education, employment, or training |
| NFOW | North Falls Offshore Wind Farm |
| NSIP | Nationally Significant Infrastructure Project |
| ONS | Office for National Statistics |
| OSEP | Outline Skills and Employment Plan |
| OWIC | Offshore Wind Industry Council |
| PEIR | Preliminary Environmental Information Report |
| RWE | RWE Renewables UK Swindon Limited |
| SELEP | South East LEP |
| SEER | SEE Renewables Offshore Windfarm Holdings Limited |
| SEP | Skills and Employment Plan |
| SIR | Sustainable Industry Reward |
| SNPP | Sub-National Population Projections |
| SOC | Standard Occupational Classifications |
| SoS | Secretary of State |
| SSER | SSE Renewables Offshore Windfarm Holdings Limited |

| | |
|-------|--|
| STEM | Science, Technology, Engineering and Mathematics |
| UK | United Kingdom |
| VEOWL | Five Estuaries Offshore Wind Farm Limited |

Glossary of Terminology

| | |
|--|---|
| Array area | The offshore wind farm area, within which the wind turbine generators, array cables, platform interconnector cable, offshore substation platform(s) and/or offshore converter platform will be located. |
| Array cables | Cables which link the wind turbine generators with each other, the offshore substation platform(s) and/or the offshore converter platform. |
| Development Consent Order (DCO) | The form of consent for a Nationally Significant Infrastructure Project (NSIP), under the Planning Act 2008. |
| Development Consent Order (DCO) Application | An application for consent to undertake a Nationally Significant Infrastructure Project made to the UK Planning Inspectorate who will consider the application and make a recommendation to the Secretary of State, who will decide on whether development consent should be granted for the Proposed Development. |
| Freeport | Freeports have been created by government to boost investment into parts of the country that have historically missed out. They benefit from a generous package of incentives, as well as excellent port infrastructure, and build on the industrial heritages of their regions. Freeports aim to rebalance local economies by building new clusters in key sectors, support the UK's Net Zero ambitions, and create long-term, high-quality jobs for local people. |
| Full-time equivalent (FTE) jobs | Full-time equivalent (FTE) is a unit that indicates the workload of an employed person. An FTE of 1.0 is equivalent to one full-time employee, whilst a part-time employee working half the hours a full-time employee does would be recorded as 0.5 FTE. |
| Landfall | The location where the offshore export cables come ashore at Kirby Brook. |
| Location Quotient (LQ) | LQ is a measure of a region's industrial specialisation relative to a larger region (e.g. Great Britain). An LQ of 1.0 indicates that both regions have the same level of specialisation, whereas a LQ > 1.0 means that the smaller region has a higher concentration of a particular sector than is seen in the larger region. |
| Nationally Significant Infrastructure Project (NSIP) | Nationally Significant Infrastructure Projects are major infrastructure developments in England and Wales which are consented by a DCO. These include proposals for offshore renewable energy projects with an installed capacity of over 100MW in England. |
| Offshore cable corridor | The corridor of seabed from the array area to the landfall within which the offshore export cables will be located. |
| Offshore converter platform | Should an offshore connection to a third party HVDC cable be selected, an offshore converter platform would be required. This is a fixed structure located within the array area, containing HVAC and HVDC electrical equipment to aggregate the power from the wind turbine generators, increase the voltage to a more suitable level for export and convert the HVAC power generated by the wind turbine generators into HVDC power for export to shore via a third party HVDC cable. |
| Offshore export cables | The cables which bring electricity from the offshore substation platform(s) to the landfall, as well as auxiliary cables. |
| Offshore substation platform(s) | Fixed structure(s) located within the array area, containing HVAC electrical equipment to aggregate the power from the wind turbine generators and increase the voltage to a more suitable level for export to shore via offshore export cables. |
| Platform interconnector cable | Cable connecting the offshore substation platforms (OSP); or the OSP and offshore converter platform (OCP) |
| The Applicant | North Falls Offshore Wind Farm Limited |
| The Project Or 'North Falls' | North Falls Offshore Wind Farm, including all onshore and offshore infrastructure. |

| | |
|------------|---|
| Unemployed | A person looking for work and could start within two weeks or, waiting to start a job that had been offered and accepted. |
|------------|---|

1 Introduction

1.1 Background

1. The North Falls Offshore Wind Farm (hereafter referred to as ‘North Falls’ or ‘the Project’) is being developed by North Falls Offshore Wind Farm Limited (NFOW, hereafter referred to as ‘the Applicant’), a joint venture between SSE Renewables Offshore Windfarm Holdings Limited (herein ‘SSER’) and RWE Renewables UK Swindon Limited (herein ‘RWE’).
2. In May 2023 Hatch¹, on behalf of the Applicant, produced Preliminary Environmental Information Report (PEIR) Chapter 31 Socio-economics. In this document the Applicant committed to producing “*an OSEP [which] will be submitted as part of the North Falls DCO application and secured through a DCO Requirement*”. This Outline Skills and Employment Plan (OSEP) has therefore been produced during 2023/24, during the Environmental Statement (ES) preparation phase of North Falls and is provided as part of the Applicant’s DCO application, with the production of a final Skills and Employment Plan (SEP) to be produced post-consent, secured through a DCO Requirement. Hatch are also the authors of the OSEP.
3. North Falls is the proposed extension to the operational Greater Gabbard Offshore Wind Farm (herein ‘GGOW’). The project includes provision for the construction, operation, maintenance and decommissioning of an offshore wind farm located approximately 40 kilometres off the East Anglian coast at its closest point, in the southern North Sea. The project includes up to 57 wind turbine generators and associated infrastructure, the installation of underground cables, and the construction of an electrical substation and associated infrastructure near to the existing Lawford Substation to the west of Little Bromley in order to connect the development to National Grid’s proposed East Anglia Connection Node substation, which would be located nearby. North Falls is proposed to make landfall at Kirby Brook between Frinton-on-Sea and Holland-on-Sea. All onshore connection infrastructure would be located in the administrative area of Tendring District Council, within the county of Essex.
4. Full details of the project description for North Falls can be found in ES Chapter 5 Project Description (Document Reference: 3.1.7). This, along with ES Chapter 31 Socio-economics (Document Reference: 3.1.33) and ES Appendix 31.1 Socio-economics Technical Baseline (Document Reference: 3.3.70) prepared by BVG Associates, which also includes an Addendum prepared by Hatch, are the primary documents that have been used to inform the preparation of the OSEP.

¹ Hatch are a specialist economic development consultancy with experience in assisting offshore wind developers to prepare outline skills and employment plans.

1.2 Coordination with Five Estuaries

5. Five Estuaries Offshore Wind Farm (herein 'Five Estuaries') is the proposed extension to the operational Galloper Offshore Wind Farm located 37 km off the coast of Suffolk and comprises both offshore infrastructure in the southern North Sea, and onshore infrastructure within the administrative area of Tendring District Council, within the county of Essex. It is being developed by Five Estuaries Offshore Wind Farm Limited (VEOWL), who submitted a Development Consent Order (DCO) application for the project in March 2024, which was formally accepted for examination on 22 April 2024.
6. In accordance with the provisions of National Policy Statement EN-5 to seek to develop coordination solutions for onshore grid connections, NFOW have been working with VEOWL on a coordinated solution to reduce the overall environmental and community impacts of the proposals, and to seek to enhance the benefits of the projects where possible.
7. The OSEP for North Falls has also been produced in close collaboration with Five Estuaries. The OSEP for Five Estuaries was prepared as part of the DCO application for Five Estuaries.
8. A key element of the OSEP is the number and type of opportunities brought forward by the two projects during the construction phase, where infrastructure and therefore labour and supply chains are likely to be shared. Five Estuaries and North Falls include almost fully overlapping or combined onshore export cable routes and a co-located site for their onshore substations to the west of Little Bromley. It is proposed the two projects' ducts will be installed adjacent to each other within the onshore cable route, and both projects have retained the option to do this as a single construction activity. Full details of the coordinated construction options considered within the North Falls and Five Estuaries DCO applications are set out in ES Chapter 5 Project Description (Document Reference: 3.1.7).

1.3 Purpose of this outline plan

9. The purpose of this document is to provide an outline plan that can be developed further with key stakeholders into a SEP that will facilitate positive and meaningful commitments and activities within the region (the OSEP is primarily focused on Tendring, but also is intended to present outline commitments that are relevant to the wider Essex and Suffolk region) by the Applicant.
10. The Applicant has engaged, and will continue to engage with, key stakeholders on the content of the OSEP and subsequent SEP.

2 Summary of key regional skills and employment challenges and opportunities influencing the OSEP

11. A full baseline assessment is presented in Appendix A Skills and employment baseline. This baseline assessment has been used to draw out the key contextual factors which the Applicant has considered when preparing the OSEP. In particular the skills and employment challenges and opportunities

relevant to the OSEP have been explored in detail in Appendix A Skills and employment baseline and are summarised below.

2.1 Supply chain strengths

12. Employment data for Essex and Suffolk shows these areas have a number of strengths in those sectors which form part of the offshore wind farm supply chain.
13. Employment in construction, land-based transport and civil engineering is more concentrated in Essex than the national average. In Suffolk, manufacturing, construction, land-based transport, civil engineering, energy generation and marine transport all have a location quotient (LQ) above 1, indicating the local economy has supply chain strengths in key sectors which could benefit from the development.
14. Construction is a particularly important sector to consider in the OSEP, given that most of the local employment opportunities will be in this sector. 9% of Essex's employment is in the construction sector and 7% of Suffolk's (LQ of 1.7 and 1.4 respectively) (ONS 2023b), indicating a relative strength in this sector in both counties.
15. There is an existing supply chain in East Suffolk catering to the energy sector. There are well established organisations such as: Orbis Energy (situated in Lowestoft), the East of England Energy Group (EEEEGR), the New Anglia Advanced Manufacturing and Engineering group, and the East Coast Manufacturing Group supporting local businesses in harnessing the opportunities associated with offshore wind. Insights gained from consultations undertaken as part of the socio-economic assessment detailed in ES Chapter 31 Socio-economics (Document Reference: 3.1.33) imply that East of England is seeing skills needs around project planning and consenting, and the supply chain's most pressing needs are around engineering, fabrication and welding.

2.2 Recruitment challenges in the construction sector

16. Although both areas have strengths in supply chain sectors, there is evidence that employers in these sectors already struggle to recruit the labour and skills they need. For instance, data from the Employers Skills Survey shows employers in the construction sector in New Anglia LEP (NALEP) and South East LEP (SELEP) areas were more likely to report skills shortage vacancies (32% and 38% respectively) than the all-sector average (22% and 25% respectively). Similarly, employers in this sector were more likely to report hard to fill vacancies.
17. The Essex Chamber of Commerce produced an additional Local Skills Improvement Plan (LSIP) priorities document in June 2023, which outlined further information on skills sought by employers between February 2022 and February 2023 (Essex Chamber of Commerce, 2023b). During this period, the

top posted occupations for the construction and built environment sector² were construction helpers (1,975 vacancies), labourers (1,656 vacancies) and quantity surveyors (1,565 vacancies). The top frequency of adverts for specialised skills in the sector included construction (12% of adverts).

18. Office for National Statistics (ONS) vacancies data for relevant occupations shows that in the construction industry there were 35,000 vacancies between August and October 2023, which accounts for 4% of the total occupations in the UK (957,000) (ONS, 2023d). This number of vacancies is 15,000 lower than the same quarter of 2022 and is the equivalent to a vacancy rate (vacancies per 100 employee jobs) of 2.3 compared to an average of 3.0 across all sectors.
19. District level data shows the labour demand volumes by (ONS 2023e). The districts in closest proximity to North Falls³ saw an average of approximately 3.7% of online job adverts in the construction and mining sector which compares to 3.1% nationally for the same period (2017 to 2022).

2.3 Labour market and skills projections

20. The recruitment challenges described above are likely to be exacerbated by growing demand for workers in the construction sector. Labour market and skills projections produced by the Department for Education (DfE) (DfE, 2023c) distinguish between two types of demand; i) expansion demand, which relates to the net change in the number of workers in certain occupations and ii) replacement demand, which relates to the number of workers required to replace those who have left that occupation (e.g. through retirement).
21. The projections for Essex for the period 2015-2035 show that the construction sector is forecast to require 25,000 workers to meet expansion demand and 44,000 workers to meet replacement demand. The projections for Suffolk are only available for the NALEP area which also includes Norfolk. These show a requirement for 10,000 workers to meet expansion demand and 38,000 workers to meet replacement demand.
22. The forecasts show a particularly large requirement for certain roles which will also be in demand for North Falls, including skilled construction and building trades, skilled metal, electrical and electronic trades, and transport and mobile machine operatives.
23. If these forecasts were accurate, it would further compound the recruitment challenges facing supply chain sectors, particularly construction.

² Defined by a breakdown of Standard Occupational Classifications (SOC) classifications on p. 14 of the Essex Chamber of Commerce additional LSIP priorities document (Essex Chamber of Commerce, 2023a).

³ Babergh, Braintree, Colchester, East Suffolk, Ipswich, Maldon, Tendring and Uttlesford.

2.4 Major infrastructure projects

24. The forecasts above are derived from national projections and do not take into account local investments and developments which would also drive demand for workers.
25. North Falls and Five Estuaries are just two of many major projects progressing across Essex and Suffolk which will have similar skills requirements. These projects include (more detail on these projects is presented in Appendix A Skills and employment baseline):
 - Longfield Solar Farm
 - Rivenhall Integrated Waste Management Facility (IWMF) and Energy Centre
 - A12 Chelmsford to A120 Widening Scheme
 - Bradwell B new power station
 - Lower Thames Crossing
 - M25 Junction 28 improvement
 - Thurrock Flexible Generation Plant Tilbury 2
 - Electric Lines: Bamford to Twinstead
 - Oikos Marine & South Side Development
 - Sea Link
 - Norwich to Tilbury
 - Purfleet Regeneration
 - Sizewell C
 - Bathside Bay – known as Freeport East
26. The LSIP notes that roles required for these projects are wide ranging but include higher concentrations of engineers, multiple construction trades, project managers, architects, manufacturers, and logistics.
27. Another consideration impacting construction-related skills demand in Essex, is the growth of housebuilding in the region. The Essex Housing Strategy states that emerging Local Plans in Essex will bring forward land to deliver c.148,000 homes by the mid 2030's. This equates to c. 9,700 per year (Essex County Council, 2021). Similarly Suffolk also has a policy focus on increasing the supply of housing to meet a range of needs.
28. Essex is also going to be the location for two new 'Freeports': Thames Freeport and Freeport East. The Thames Freeport will include a skills accelerator and the potential for 20,000 new jobs, whilst Freeport East will generate 13,500 new jobs.
29. Although the scale of these projects presents a challenge, it also presents an opportunity as it means there is a strong pipeline of projects for people to develop their careers, attract young people to the sector and commit workers to the sector on a longer-term basis.

2.5 Labour market capacity

30. Data from the Annual Population Survey (APS) shows that Essex and Suffolk had unemployment rates of 3.3% and 2.3% respectively (July 2022 to June 2023), compared to a UK average of 3.7%. This suggests that both areas are at or close to full employment, meaning there are very few local people immediately available to work. If this remained the case, this would limit the potential for local people to benefit from the employment opportunities created by North Falls.
31. Maximising local employment benefits may therefore depend on reducing the number of people who are economically inactive (people who are not in work or seeking work). APS data shows that the inactivity rate of the working age population is also lower in Essex and Suffolk than the national average (19% compared to 22% in the UK). Reducing the number of inactive people is more challenging as these people tend to face more significant barriers to work (e.g. poor health). However, it may be possible to reduce economic inactivity among some groups through targeted intervention (e.g. older people aged 50-64 who have higher inactivity rates than other age groups or young people not in education, employment or training (NEET)).

2.6 Local employment challenges and opportunities

32. The data above relates to Essex and Suffolk as a whole. However, there may be potential to address local employment challenges in areas with above average levels of unemployment and inactivity. Many coastal areas across the UK have high rates of unemployment and deprivation and this trend is also seen in Essex in particular. Tendring has the highest rates of deprivation (based on IMD data), economic inactivity (27.6% - July 2022-June 2023) (ONS 2023a) and 3rd highest proportion of claimants (ONS, 2023f) out of all districts in Essex and Suffolk. The map below shows how the number of claimants is higher for many of the towns in Essex and Suffolk. In particular, the 2019 Index of Multiple Deprivation (IMD) shows that 18% of the Lower Layer Super Output Areas (LSOAs) in Tendring are within the 10% most deprived areas in the country in the employment domain. This includes some areas that are among the most deprived areas in the country (e.g. the most deprived neighbourhood in England according to the IMD 2019 is to the east of the Jaywick area of Clacton on Sea (Tendring 018a). This area was also ranked as the most deprived nationally according to the IMD 2015 and IMD 2010.

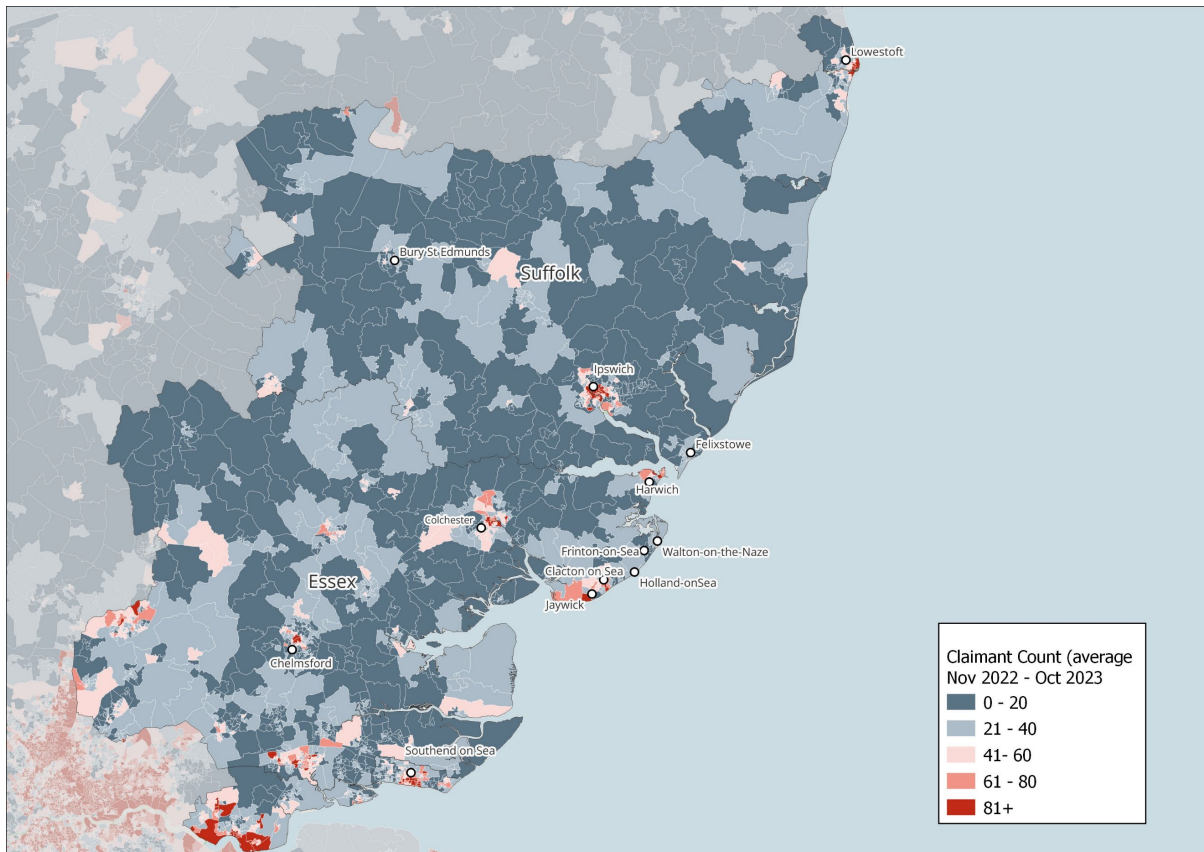


Plate 6.1 Map of Claimant Count, November 2022 – October 2022, ONS (2023f)

33. High levels of unemployment and inactivity in these areas are likely to be due to a range of complex barriers including low skills, deprivation, poor health and intergenerational worklessness. However, these areas have also suffered from a lack of investment and poor access to employment due to their peripheral location. The development of North Falls and the employment it creates therefore represents an opportunity to alleviate the employment and deprivation challenges in these communities.

2.7 'Factors to address' in the construction sector

34. The LSIP for Essex notes many of the challenges described above but also identifies a number of factors that need to be addressed in order to respond to these skills challenges. There may be an opportunity for North Falls to help to respond to a number of these challenges. These include:
- The need to diversify the workforce: The construction workforce is currently ageing, and male dominated. There may be opportunities to encourage more young people and women to pursue opportunities in the sector.
 - Perception and awareness being a significant barrier: The average salary for a full time construction worker in East of England is £38,600, nearly £4,000 higher than the all-sector average (£34,800). This suggests there is scope to attract more people into the sector and increase average salaries in the area. A key barrier to address will be increasing awareness of the opportunities to build a career and overcoming negative perceptions.

- Significant infrastructure and housing pipeline: This acts as an opportunity to provide long term employment and boost the attractiveness of the sector locally.
- Shortage of construction tutors and latest industry knowledge of existing tutors: There may be opportunities to work with local colleges to address this issue, including opportunities for existing tutors to work with industry to upskill.

2.8 Existing skills assets

35. Essex and Suffolk's skills infrastructure has a number of assets which can help to respond to the challenges and opportunities identified in this report.
36. There are currently two skills networks in operation in Essex (Essex Chamber of Commerce (2023a):
 - The Federation of Essex Colleges (FEDEC); and
 - The Essex Provider Network (EPN).
37. The former brings together colleges locally and the latter brings both colleges and providers.
38. Additionally, there is an Institute for Technology within the SELEP area, which is led by the South Essex College, with partners including:
 - Anglia Ruskin University;
 - Chelmsford College;
 - Harlow College;
 - Port of Tilbury; and
 - Morgan Sindall Construction.
39. In 2023, Essex County Council launched an Apprenticeship Hub for 16-25 years olds in Basildon, Canvey Island and Harlow. The Hub's aim is to create 300 new apprentice opportunities in Essex in 2023 (Essex County Council, 2023). The hub works with employers to create the opportunities and young people to help them apply.
40. Additionally, there is an array of Essex based training providers who help pupils develop the specific skills required in the construction industry, these include:
 - South Essex College Construction Centre – Basildon
 - Construction Skills Centre – Harlow College
 - Chelmsford College Construction Centre
 - SECTA Construction Academies – South Essex
 - STEM Innovation Centre – Braintree (Colchester Institute)
 - Colchester Institute
 - BuildSkill – Colchester
 - Construction 360 – Basildon

41. Tendring Technology College is the most local college to the project (in terms of onshore infrastructure). Tendring Technology College is large, mixed 11-18 Comprehensive School, with two campuses, serving a coastal community in the towns of Frinton-on-Sea and Thorpe-le-Soken and its surrounding villages.
42. This number of construction skills centers at local Further Education (FE) colleges indicates that the infrastructure is there if more young people can be encouraged to go into the sector.

3 Policy

43. A detailed policy review is presented in Appendix B Policy Context. This section highlights the key points from this policy review.

3.1 UK and industry level

44. Relevant policies and initiatives (not exclusive) that have been considered in producing this outline plan and will continue to be reviewed as the SEP is developed. These include:
 - Offshore Wind Sector Deal (HM Government, 2020a) – in particular, the commitments given by the industry to diversity and inclusion, apprenticeships and people transitioning into the industry such as the military. In 2019, the Offshore Wind Sector Deal set a target of 30 Gigawatts (GW) to be produced from offshore wind by 2030;
 - British Energy Security Strategy (HM Government, 2022b) - raised the ambition of the Offshore Wind Sector Deal, aiming for delivery of 50GW by 2030, including 5GW of floating of the offshore wind.
 - People and Skills theme within the UK Government's Shared Prosperity Fund (part of the Levelling Up programme).
 - Offshore Wind Industry Council (OWIC) People and Skills Plan 2024 (OWIC, 2024) - the Plan recognises that rate of growth in the sector needs to be accompanied by upskilling of existing employees, bringing people in from other sectors and ensuring a longer-term pathway through education and academia. The sector is committed to becoming increasingly diverse and inclusive. A strategy advisory board, the Investment in Talent Group, has been established comprising senior representatives from across the sector, Government, and the devolved administrations to drive delivery.
45. The Contract for Difference (CfD) Sustainable Industry Reward (SIR) process will be run as a competitive allocation for extra revenue support 6 months before the main CfD auction. The Draft SIR Allocation Framework (Department for Energy Security and Net Zero (DESNZ), 2024) sets out the rules for the CfD SIR and the eligibility requirements applicants must satisfy. As part of this SIR Allocation process, the Applicant may be required to commit to investment in

shorter supply chains and more sustainable means of production⁴. It is intended that activities required through this process, where possible will complement and align with employment and skills commitments related to supply chain and sustainability detailed in the SEP.

3.2 Regional and local

46. At a regional level the SELEP and NALEP have produced regional level economic and skills strategies based on quantitative assessment of the baseline growth in employment, by sector, within the additional context of Nationally Significant Infrastructure Projects (NSIPs) in these areas which often represent 'above trend' growth.
47. The priorities set out in the SELEP Skills Strategy include several priorities that are relevant to the development and skills and employment in the region.
48. The Applicant has engaged with regional plans and initiatives. This has included The Applicant signing up to the Essex County Council Green Skills Pledge to help the transition to net zero and upskill the local workforce with green skills. The Green Skills Pledge aims to provide support through joining up resources, collaborating on green initiatives, sharing best practices in green skills development and contributing to the public debate on climate change.
49. The Essex Skills Plan 2022-2023 (Essex County Council, 2023) demonstrates an employer led partnership approach to deliver local skills to all individuals residing in Essex gain the skills they need to progress, in addition to contributing positively to the local economy and clean growth.
50. The Green Skills Infrastructure Review for Essex (Essex County Council, 2022) highlights the fact that over the next decade, there is likely to be a large amount of growth in green jobs within the Essex economy which will contribute towards the UK making the transition to net zero. The report suggests that green skills are currently the core function of the job role, with there being estimated to be between 3,000 to 4,000 green skilled jobs within Essex.
51. The North Essex Economic Strategy (Braintree District Council, Colchester City Council, Essex County Council, Tendring District Council and Uttlesford District Council, 2019) was produced by the North Essex Economic Board (Braintree, Maldon, Tendring and Uttlesford) and several priorities relevant to the development of skills and employment in North Essex.
52. The Essex Sector Development Strategy (Essex County Council, 2022) was drafted to support businesses and learning providers in planning for the future, with the five main growth sectors including construction, advanced manufacturing and engineering, digital technology and life sciences. One of the key commitments within the strategy is based around hitting net zero targets.
53. The Construction Growth in Essex 2020-2040 report (Essex County Council, 2020) highlights the challenges that the Essex construction industry will face in

⁴ This is a draft document, it's subject to change and will continue to be revised ahead of the launch of the SIR scheme.

the coming years and recommends various measures that can be taken to maximise opportunities within the sector. The county states that opportunities should be focused on:

- Developing capabilities at level 2 and above in construction occupations;
 - Building a legacy and capability in the county beyond the lifetime of the project; and
 - Offering a long-term focus on transferable skills, fabrication and assembly, manufacturing and engineering supply-chains.
54. The Technical Skills Legacy Report (Suffolk Growth Partnership, 2022) produced by the Suffolk Growth Partnership sets out workforce needed within the construction and engineering sectors to deliver the forecasted regional infrastructure over the next 15 years (in Suffolk and Norfolk), which is in the excess of 220 projects. All employers interviewed as part of the evidence base for the report agreed that there are significant skills gaps within existing workforces, extending from entry-level skills such basic computer software skills to senior management skills and advanced technical skills.
55. A new Tendring Future Skills Programme was announced in 2024. It offers opportunities for Tendring residents to upskill and taken advantage of employment opportunities offered by project such as North Falls.

3.3 Common themes

56. Common themes that emerge from the policy include the need to:
- Increase the productivity and efficiency of supply chains;
 - Raise levels of educational and skills attainment;
 - Increase the prevalence and accessibility of apprenticeships;
 - Create a better matchup between existing skills availability and the future needs of the economy, particularly in the green and tech sectors;
 - Develop softer skills in parallel with more technical skills;
 - Encourage individuals to achieve their potential through lifelong learning;
 - Ensure education providers work with local businesses to understand the skills need (LSIPs being an employer led document is an example of this);
 - Support the upskill and retaining of those who have worked in traditional industries;
 - Mitigate the impacts of Brexit, which has reduced the amount of inward migration into industries such as construction, by cementing a pipeline for people into industries such as construction and engineering; and
 - Address existing barriers to work (which are noted in Section 2).

4 Scope and aim

57. The scope of this OSEP is to provide the basis for a final SEP to underpin the development and subsequent operation of North Falls. The OSEP sets out the outline approach that is proposed to be adopted by the Applicant, with the aim of promoting skills and employment opportunities arising from the Project to local people and businesses within Tendring and the wider Essex and Suffolk areas to maximise socio-economic benefits across the region. The Applicant has drawn on the baseline data and policy information outlined in the preceding sections and in Appendices A and B to produce the OSEP. The scope of the remainder of the document is as follows:

- The key principles to the approach by the Applicant (Section 5);
- Scale of the employment and skills opportunities as well as the types of local roles required (Section 6);
- The experience the Applicant has within the industry on supporting jobs and skills (Section 7);
- Stakeholder consultation undertaken by the Applicant (Section 8);
- Example outline commitments and activities that have been formed in consideration of consultation feedback gathered to date (Section 8.2) and how these outline commitments may be implemented and monitored (Section 10); and
- Best practice case studies of the Applicants offshore wind projects and work in the UK (Section 9).

5 Principles

58. The Applicant has established principles that have been and will continue to be relied upon when consulting with stakeholders and establishing objectives and commitments. These principles have been developed following extensive experience in working with communities, and are summarised as:

- Engagement and research
 - Any initiative or intervention shall be as the result of strong research, to ensure that it meets the needs of key stakeholders.
- Collaboration
 - Builds on and adds value, and does not duplicate or overlap with existing initiatives working with others in collaboration.
- Strength of resources
 - Makes best use of the Applicant's resources; other developing renewable energy projects, existing assets (on and offshore) and people e.g., STEM Ambassadors, volunteers.
- Sustainability and legacy

- Takes into account sustainability and legacy from the outset of the initiative, ensuring in particular that initiatives can be continued from construction through to the operation of the offshore wind farm.

6 Employment and Skills Opportunities

59. As part of the assessment of socio-economic effects set out within ES Appendix 31.1 Socio-Economics Technical Baseline (Document Reference: 3.3.70), an assessment of the potential number of full-time equivalent (FTE) roles generated by each component of the Project's construction (supply chain, installation and commissioning) and operation and maintenance has been provided.
60. This includes assumptions about the extent to which employment might be taken by companies and workforce in the existing labour market based on the availability of local supply chain and labour types. The activities set out within this OSEP aim to set the foundations to maximise the amount of employment created by North Falls within Tendring and the wider Essex and Suffolk region. Key local employment opportunities are set out within Table 6.1.

Table 6.1 Local direct employment opportunities

| Industry/sector | Key local direct employment opportunities |
|-------------------------------------|--|
| Development and Project Management | Engineering Permitting Project management |
| Installation and Commissioning | Turbine installation and commissioning Foundation installation Array cable installation Offshore export cable installation Offshore substation installation Onshore substation installation (Enabling works, Buildings, Steel fabrications, Civil works, Site management and Electrical works) Onshore export cable installation (Horizontal direct drilling, Civil works and Cable terminations) Operation and maintenance base construction (Materials, Equipment and Labour) |
| Operations, Maintenance and Service | Operations (Wind farm administration, Vessel operation and Training and health and safety) Turbine maintenance (Routine and minor maintenance, and Major component maintenance) Balance of plant maintenance (Foundations, Offshore cable, Substation and Transmission maintenance onshore) |

61. The scale of local employment impacts by phase is set out in the charts below (sourced from Figure 9, Figure 10, Figure 17, Figure 18, Figure 25 and Figure 26 of ES Appendix 31.1 Socio-Economics Technical Baseline (Document

Reference: 3.3.70)). This shows that, based on the economic modelling conducted for the socio-economic assessment, for the baseline/enhanced scenario the local (Essex and Suffolk) employment impact is expected peak at over 300 direct, indirect and induced FTE jobs in the construction phase and reach a steady state of over 100 FTE jobs per annum during the operational phase (the two scenarios present the same level of impact for the local area). ES Appendix 31.1 Socio-Economics Technical Baseline (Document Reference: 3.3.70) also present impacts for the worst case scenario (representing an outcome where UK suppliers are uncompetitive). The activities set out within this OSEP aim to help exceed the worst case scenario estimates presented in Plate 6.3 below and achieve/exceed local employment quantified for the baseline/enhanced scenario in Plate 6.2 below⁵.

⁵ It should be noted that the OSEP does not provide a formal commitment for the project delivering a certain level of local employment impact. The intention of the OSEP is to provide an outline document that can be used for the development of the SEP, post DCO award, which will seek to outline ways to maximise the local beneficial employment impacts of North Falls.

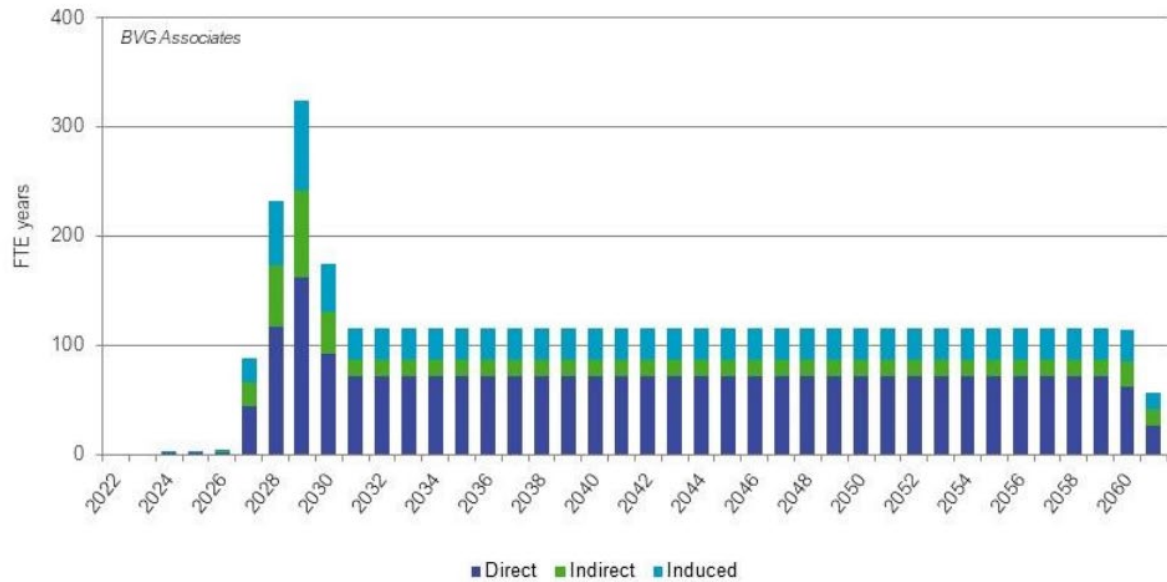


Plate 6.2 Local FTE jobs created by North Falls over the lifetime of the wind farm for the baseline/enhanced scenario

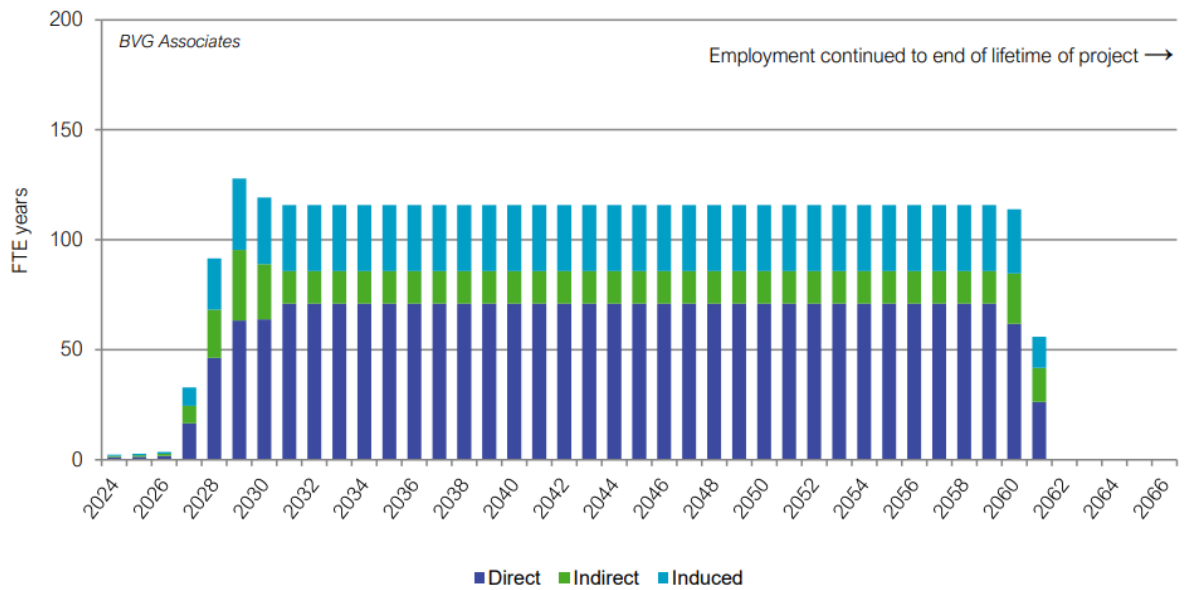
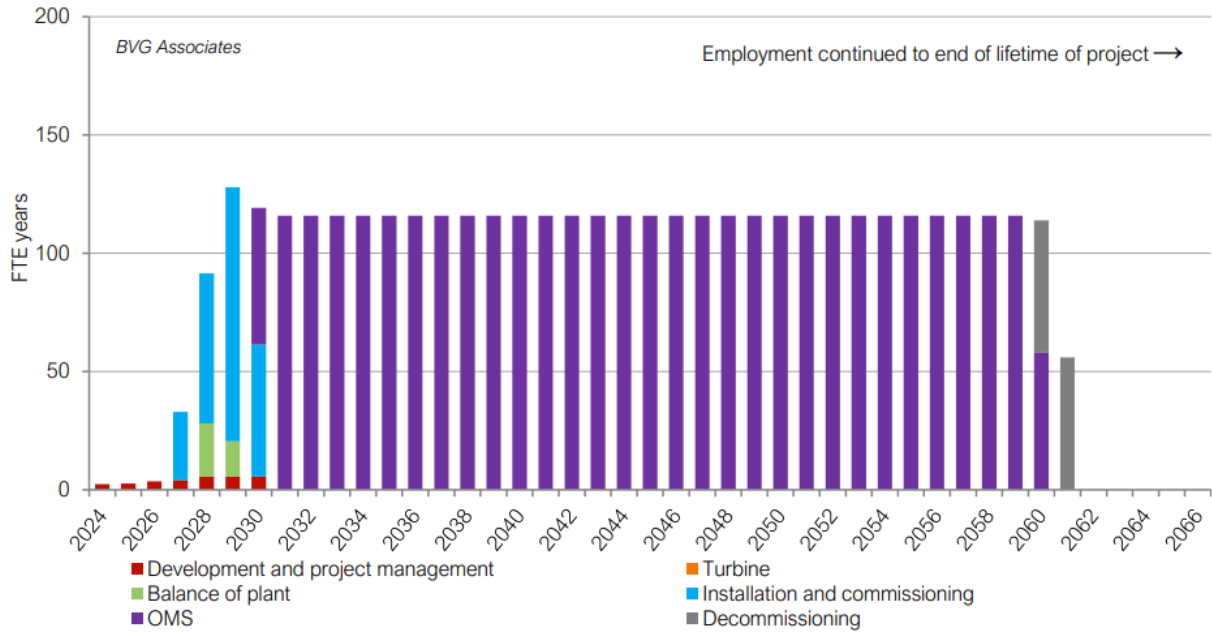


Plate 6.3 Local FTE jobs created by North Falls over the lifetime of the wind farm for the worst case scenario

7 Industry Leadership

62. The Applicant aims to be an industry-leader in supporting communities and individuals into employment and training; career development; and expanding the talent pool; particularly in support of the companies within the supply chain.
63. This includes developing initiatives and collaborating with other organisations to improve diversity and inclusion within the potential and existing workforce.
64. Examples of these initiatives that will be leveraged as part of the North Falls SEP, include:
 - Support for jobs and skills in the local supply chain:
 - Encouraging and supporting growth and employment in local supply chain companies;
 - Increasing visibility of local Small and Medium-sized Enterprises (SMEs) within the employment market;
 - Promoting training and employment opportunities to local residents;
 - Supporting transition from other sectors, e.g., military, fossil fuel-based sectors, etc; and
 - Creating opportunities to collaborate with other developers, tier 1s, and companies in the supply chain.
 - Supporting the whole career:
 - Primary education;
 - Secondary education;
 - Tertiary education linking with innovation and Research and Development (R&D);
 - Early-stage careers – by providing work experience, apprenticeships, traineeships/internships; and
 - Upskilling and encouraging Continued Professional Development of employees.
 - Expanding the talent pool:
 - Unemployed, under-employed, those experiencing employment poverty and the economically inactive; and
 - Supporting the increase of diversity of people in the offshore wind workforce and improving inclusion in the industry.

8 Stakeholder consultation

65. The Applicant has a continuous history of excellent working relationships with key local stakeholders across the region of Essex. These include those within the local education, skills and employment sectors that are, in part, due to the Applicant's constituent parties' (SSER and RWE) existing and ongoing investment in the region through their operational wind farms in the area. The Applicant will continue to work with these stakeholders in development of the SEP in due course.
66. To develop the outline plan, including its key principles and approach, the Applicant has engaged with several key stakeholders in the education / training / employment / skills sector within the Essex and Suffolk area (see Table 8.1 for stakeholder consultees).
67. Engagement for the OSEP was held jointly with Five Estuaries in support of the ongoing coordination efforts of both Five Estuaries and North Falls projects.

Table 8.1 Stakeholder consultees

| Industry/sector | Organisation |
|----------------------------------|----------------------------------|
| County Council (Host Authority) | Essex County Council |
| County Council | Suffolk County Council |
| Local Authority (Host Authority) | Tendring District Council |
| Chamber of commerce | Essex Chamber of Commerce |
| UK Government | Department for Work and Pensions |
| Education and Training Provider | STEM Learning UK |
| Education and Training Provider | EEEEGR |
| Education and Training Provider | University of Essex |
| Developer | Freeport East |

68. The discussions held explored as part of the stakeholder engagement conducted for the OSEP included;
- Key concerns and issues regarding skills and employment within the local communities;
 - Opportunities for collaboration with both external and internal bodies where it would enhance the Applicant's delivery in this area;
 - Identification of existing programmes, initiatives, and activities (whether to rule-out, or to collaborate); and
 - Key focus topics and populations from stakeholder perspective for maximising impact through the SEP.

8.1 Engagement summary

- 69. The feedback from engagement on the OSEP has been collated and used to shortlist and prioritise actions and activities that will form the basis of the agreed commitments within a subsequent SEP, which will include greater detail on timelines, monitoring, and commitments.
- 70. A summary of the key comments raised are detailed in Table 8.2.

Table 8.2 Key comments raised through engagement

| | |
|---|--|
| Challenges | Understanding of the range of job roles available within offshore wind. |
| | Seasonal and care work provides a lot of the employment in the region – particularly coastal areas. Not long-term employment options. |
| | Some students/families are third generation benefits customers, with lack of educated / high-earning parents. |
| | Basic roles shortage i.e. bus drivers – impacting travel to work ability. |
| | Tendring are below the average UK wage. |
| | People are disenfranchised – people and projects come and go too quickly and are too high level. |
| | The area is missing long-term rolling programmes of activities – affecting buy-in and recruitment. |
| | Skills and supply chain shortages now and in the future – what will be the impact with numerous developments now and in the future. |
| | Tendring area isn't particularly well served from an education perspective, 8 or 9 high schools in Tendring but no HE or large FE colleges – learners don't travel particularly far. |
| | Workplace apprenticeships – schools do struggle to get meaningful work placements. |
| Opportunities | Getting females into engineering. |
| | Large number of people with disabilities with limited skills and job / career opportunities. |
| | 50+ market. |
| | Utilise Job Centre to educate and engage community. |
| | Ability to provide careers not jobs. |
| | Coordination with other developments – lots of development in Tendring and Bathside Bay. |
| | Educate the educators. Schools have limited knowledge to be able to provide up to date, useful advice and knowledge to students. |
| | Offer more site-based experience – many employers can't afford to do this and only offer school based talks etc. |
| Target young people who are NEET with initiatives such as skills bootcamps. | |

| | |
|--|--|
| | Engagement through from primary to secondary will help shape views early. |
| Existing programmes / initiatives | Department for Work and Pensions (DWP) 'sector-based work academy programme' – working with companies to provide work experience training for 18-30 year olds with guaranteed interview at the end while remaining on universal credit. Fully funded by DWP. |
| | Drive engagement via the Tending Future Skills programme being executed by EEEGR and University of Essex. |
| | Skills Bootcamp model at Lowestoft College – a good example of a programme that pulls together useful resources and fills places. Rachel Bunn is the contact if we need further information. |
| | Federation of Colleges Essex – could put together some central training. Central to the college may be Chelmsford – an hour of travel each way is a big barrier. |

71. As the Project develops, this plan will evolve to focus the approach and key areas of exploration. The feedback from the engagement on the OSEP will be used to shortlist and prioritise actions and activities that will form the basis of the agreed commitments within the final SEP, which will include detail on timelines, monitoring and commitments.
72. Engagement will continue with previous stakeholders to obtain valuable insight and advice. Future engagement will include additional stakeholders such as:
 - Devolved administrations;
 - UK Government including Department Energy Security and Net Zero;
 - Other regional bodies e.g. SELEP;
 - Other nearby projects who are further behind in the development process such as the National Grid Norwich to Tilbury project.
73. The Applicant will continue to work in a 'joined up' / collaborative approach with other major developments and initiatives in the area, particularly Five Estuaries.
74. The production and implementation of a SEP will help to ensure that the region benefits from the opportunities that NSIPs like North Falls bring to the Tending and the wider region of the rest of Essex and Suffolk as the project moves towards construction and then operation.

8.2 Identified themes and approach

75. Through the engagement process undertaken, a number of themes have been identified from consultation with stakeholders. These themes are outlined within Table 8.3 below, alongside the proposed approach to addressing these that would support the skills and employment needs within Tending district and beyond into the wider Essex and Suffolk regions.

Table 8.3 Themes and approach

| Themes Raised | Description | Approach | Example Activities |
|--|--|---|---|
| <p>Approach to Local Supply Chain and Recruitment</p> <p>Maximising opportunities for the local region to provide employment and address under-employment and employment poverty that is prevalent within Essex, particularly Tendring.</p> | <p>Tendring district is amongst the 10% of the most deprived areas in England with employment and skills factoring into this deprivation scale.</p> | <p>The Applicant will look to actively engage with initiatives that exist within the local region e.g. Essex Green Skills Strategy, Tendring Future Skills Programme etc. to support, promote and provide opportunities to aid growth in green skilled jobs across the region.</p> <p>The Applicant has extensive experience in recruiting within the Essex region from its existing assets such as GGOW. North Falls will look to emulate these initiatives and create similar socio-economic benefits in the local area.</p> <p>The Applicant will also look to continue to collaborate with Five Estuaries and look to collaborate with other infrastructure projects within the area such as Freeport East to add further value to the creation or pre-existing initiatives collectively.</p> <p>Work with existing stakeholders such as DWP and STEM Learning to support their delivery and encourage the supply chain to be actively engaged.</p> | <p>Supporting existing initiatives and/or putting in place new interventions e.g. attracting from other sectors.</p> <p>Promotion of local opportunities in the supply chain.</p> <p>Webinars with their work coaches, teachers to give an understanding of project timing and employment opportunities.</p> <p>Providing careers information and skill requirements.</p> <p>Attending events and careers fairs.</p> <p>Providing careers materials, including case studies as examples of job roles.</p> <p>Apprenticeships / internships / work experience.</p> |
| <p>Education</p> <p>Focussing on supporting the development of a long-term pipeline of talent through the provision or support of education opportunities.</p> | <p>Concerns around ensuring the availability of a suitably skilled workforce for the deployment of offshore wind projects both in the UK and globally.</p> | <p>Provide an opportunity for teachers to engage directly with the Applicant to see and learn about the different career pathways relevant to their subjects, and to observe how their subject can be applied practically in business.</p> <p>Promotion of careers so that students recognise the opportunities not only for highly skilled people, but also entry level roles, non-technical and semi-skilled roles too.</p> | <p>Sector-based academy to support employability.</p> <p>Champions for Wind (see case study in Section 9) type programmes for supporting teachers.</p> <p>Development of careers materials to support career decisions and subject choices.</p> <p>Explore touch points for university engagement.</p> |

| Themes Raised | Description | Approach | Example Activities |
|---|---|--|---|
| | | <p>Aim to support the whole career, including the upskilling of employees already employed in the industry.</p> <p>The full SEP will be developed in collaboration with the supply chain, to encourage their engagement with local schools, colleges, and universities.</p> | |
| <p>Transition</p> <p>Supporting the transition of people into the offshore wind industry from other sectors.</p> | <p>Many workers (particularly in sectors with strong levels of complementary skills such as oil and gas) bring with them skills and experience that can be adapted to the new environment of working in offshore wind and/or help address skills shortage.</p> <p>From consultation held to date it is understood that there are many individuals, who are over 50, within the region that are currently unemployed as they transition from previous sectors.</p> | <p>Continue to facilitate the movement of individuals transitioning from other sectors e.g. ex-military into the offshore wind industry.</p> <p>Both RWE⁶ and SSER⁷ are strong supporters of service personnel being signatories of the Armed Forces Covenant and both have been awarded Silver level awards⁸ via the Armed Forces Employer Recognition Scheme.</p> | <p>Information provision on potential for experience and skills transfer.</p> <p>Mentoring support for individual service leavers.</p> <p>Participation in and/or delivery of recruitment events.</p> <p>Promote NFOW opportunities via SSER Just Transition careers page (https://careers.sse.com/just-transition)</p> |
| <p>Diversity</p> <p>Provide support for over 50s into employment and those with disabilities.</p> | <p>Within Essex it is recognised that many of the minority communities are more seriously impacted by unemployment, disadvantaged lives, disabilities, etc.</p> <p>The growth of the offshore wind industry may provide opportunities for local people to access employment opportunities that may not have been available in the past. The Applicant is working to have a more diverse workforce and be more inclusive</p> | <p>All initiatives will be created and considered through the lens of diversity and inclusion.</p> <p>This includes targets such as:</p> <p>Where specific under-represented or minority communities have been identified as a priority by key strategic stakeholders NFOW will work with them to either add value to existing or planned activities or</p> | <p>Work with the DWP to develop a programme for over 50s returning to / starting employment.</p> <p>Promote/ provide opportunities for those with disabilities to find career pathways.</p> <p>Work with existing bodies to identify and support minority and under-represented communities into employment.</p> |

⁶ [RWE careers and the armed forces | RWE in the UK](#)

⁷ [Armed Forces Commitment \(sse.com\)](https://www.sse.com)

⁸ [Defence Employer Recognition Scheme - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

| Themes Raised | Description | Approach | Example Activities |
|---------------|--|---|--------------------|
| | and is keen to support working with local people to raise their aspirations and employability. | look at ways that NFOW might be able to address gaps. | |

9 Case studies

76. The case studies presented in this section demonstrate existing employment and skills initiatives being delivered by the Applicant's constituent parties (SSER and RWE). This will provide inspiration for the development of the SEP for North Falls.
77. The primary case study presented in this OSEP is GGOW, North Falls' sister project, located around 20 km off the coast of the East Anglian coast, England. GGOW is operated and maintained from its operations and maintenance base at Lowestoft, Suffolk. It is a 50:50 joint venture between SSER and RWE, with SSER operating the wind farm on behalf of the joint venture partners.
78. This section also sets out a number of other case studies from offshore wind projects that RWE and SSER have delivered or delivering around the UK. Other case study employment and skills initiatives have been drawn from the following offshore wind projects as well as the wider employment and skills initiatives being delivered by RWE and SSER:
- Sofia: The 1.4GW Sofia Offshore Wind Farm, sited on the shallow central area of the North Sea known as Dogger Bank, is the largest offshore wind project in RWE's current portfolio. Now under construction, the project is located 195 km from the nearest point on the UK's North East coast. It will have a single offshore converter platform, with the electricity generated transported from there, via a high voltage direct current export cable, to landfall 220 km away in Redcar, Teesside. A new onshore converter station is being built, and power generated by the project will enter the national grid at the existing National Grid substation in Lackenby, Teesside, seven kilometres inland. The project will be operated out of an RWE hub in Grimsby.
 - Seagreen 1: A joint venture between Total Energies (51%) and SSER Renewables (49%). The operational Seagreen Offshore Wind Farm is located around 27 km from the coast of Angus in the North Sea. Seagreen has 114 turbines with a total generating capacity of 1,075MW.
 - Beatrice: A joint venture between SSER (40%), SDIC Red Rock Power Limited (25%), TRIG (The Renewables Infrastructure Group) (17.5%), and Equitix (17.5%) is a 588MW offshore wind farm located approximately 13 km from the Caithness coast, Beatrice became fully operational in June 2019. Beatrice is operated and maintained from its base at Wick Harbour on the North East coast of Scotland. The project is a joint venture partnership with SSER as the largest shareholder.
 - Dogger Bank Wind Farm: A joint venture between SSER (40%), Equinor (40%) and Vårgrønn (20%) which is an offshore wind farm being developed in three phases – Dogger Bank A, B and C – located between 130 km and 190 km from the North East coast of England at their nearest points. SSER Renewables is leading on the development and construction of Dogger Bank Wind Farm. Each phase will have an installed generation capacity of 1.2GW.

- Berwick Bank: Berwick Bank is a proposed offshore wind farm located in the North Sea, in the outer Firth of Forth. Berwick Bank has the potential to deliver up to 4.1 GW of installed capacity.

9.1 GGOW

79. GGOW represents a £1.5 billion investment. It created hundreds of jobs during construction as well as 100 long-term new roles at its (then) newly built operations and maintenance base in Lowestoft. It was officially opened in 2013⁹.
80. GGOW was able to utilise the vast experience of Lowestoft-based oil and gas firms and introduce multiple new suppliers into the offshore wind industry.
81. Local firm Windcat Workboats, provider of crew transfer vessels to transport technicians to and from the site. The industry has matured significantly since that time but continues to welcome new players, particularly from related sectors keen to transition into offshore wind.
82. Of the 100 new recruits to the GGOW operations base, 95% were from the local area and, since inception, the project has seen two completed traineeships, six completed apprenticeships, two current apprentices and a further two starting in August 2024 participating in the wind farm's training scheme as wind turbine and balance-of-plant technicians. The wind farm has also offered junior engineer roles in disciplines including electrical engineering, supervisory control and data acquisition engineering and control and instrumentation. Ex-fishermen have been employed on crew transfer vessels as part of the drive to find locally skilled people to fill requirements for roles. Since 2015, GGOW have recruited eight pipeline trainees to the Operations and Maintenance Team. Future plans include delivery of a five-year pipeline trainee plan which will grow the pipeline trainee numbers at the Lowestoft base.
83. Other key employment and skills metrics for GGOW include:
 - £58,000 investment in technical training and personal development for GGOW based staff in 2023/24; and
 - £95,000 personal development and technical training investment planned for 2024/25.
84. North Falls will similarly provide contracting opportunities for local companies and career opportunities for local people throughout each phase of its lifecycle.

⁹ [Greater Gabbard - North Falls Offshore Wind Farm](#)

9.2 Other UK Case Studies

Table 9.1 Other case study example employment and skills initiatives around the UK

| Themes | Case study examples of employment and skills initiatives |
|--|---|
| <p>Approach to Local Supply Chain and Recruitment</p> | <p>Wick harbour investment and local supply chain (Beatrice)</p> <p>The approximate £10m investment has transformed the derelict Thomas Telford buildings to see them returned to maritime use. Around 90 employees are based in the buildings.</p> <p>Burntisland Fabrications, based in Scotland, was awarded a £100m contract to manufacture 26 wind turbine jackets by Beatrice Tier 1 contractor Seaway Heavy Lifting. The contract award has protected around 200 jobs and required in the region of 22,500 tonnes of steel fabrication.</p> <p>Conversations with the supply chain and supporting local communities (Dogger Bank)</p> <p>Dogger Bank Wind Farm hosted a supply chain event, focused on skills in offshore wind, a first for developer led supply chain event. The event explored the skills challenge and how Dogger Bank Wind Farm is working to address this through industry and community engagement.</p> |
| <p>Education</p> | <p>Apprenticeships</p> <p>Apprenticeship schemes have been delivered across the UK. There are separate schemes across IT, onshore and offshore wind turbine technicians. The apprenticeships typically last for three years split across college-based learning and onsite experience.</p> <p>Sofia Champions of Wind Programme</p> <p>Each year since 2020, Sofia Offshore Wind Farm (Sofia) has invited interested teachers to apply for the fully guided programme where they are supported in the development of tailored curriculum materials in their specialist subject, with a focus on offshore wind and its associated careers. This is enabling students to have links to the vast array of job opportunities in their region.</p> <p>Seagreen Operations & Maintenance Base Visit Day</p> <p>The Seagreen 1 team hosted a group of Wind Turbine Scholars from North East Scotland College who are studying on the Engineering Construction Wind Turbine Scholarship programme as well as guests from the Engineering Construction Industry Training Board and the Energy Transition Zone.</p> <p>Skills for the Future Lab (3D virtual reality visualisation) Skills for the Future Lab (3D virtual reality visualisation) (Seagreen)</p> <p>A Skills for the Future Lab opened in Arbroath, with local students exploring wind power through virtual reality. Local students engaged with an immersive, 3D virtual reality visualisation of the engineering aspects of offshore wind farms in the Lab. Comprising a virtual reality suite, the facility at Dundee and Angus College's Engineering Partnership Innovation Centre will promote STEM engagement throughout Dundee and Angus.</p> |



Image source: Seagreen Wind Energy, an SSE Renewables and TotalEnergies joint venture

STEM programmes - [Seagreen Bronze Project](#) and [STEM Engagement at Berwick Bank](#)

The Seagreen Bronze Project has seen pupils from Carnoustie High School, Monifieth High School and Webster's High School in Kirriemuir work in teams on a project created by the Engineering Development Trust in collaboration with the developers of the Seagreen Wind Farm. For the project which was named 'My School is an Island', the students had to pick an offshore location for their school and then consider the various renewable energy sources they could use to power their school. To help them with their project the teams were mentored virtually by SSER staff, attended an SSER careers Q&A and had a virtual tour of an offshore wind turbine.

[Covesea Lighthouse \(Beatrice\)](#)

June 2017 saw the announcement of the first round of grant awards from the £3m Partnership Fund element of the Beatrice Fund. Awards totalling £378,000 were made to 14 different projects across the north of Scotland, including £40,000 to the community-owned Covesea Lighthouse in Moray. The grant award enabled the community company to complete an Education and Heritage Centre, ensuring that future generations have the chance to enjoy learning about the heritage of the lighthouse.

[Dogger Bank Wind Farm scholarship fund](#)

50 scholarships will be available during the construction of the wind farm, for students in these communities studying science, technology, engineering and maths subjects to support the cost of further education.

Dogger Bank committed to investing £1m during the construction of the wind farm and working with education providers to support the development of skills for the future of green energy. During the construction of the wind farm they will increase and expand STEM provision in local communities with bespoke programmes in each key area. This has a focus on ensuring the coastal communities nearest to the construction and operational bases benefit from the development.



Image source: Dogger Bank Wind Farm, an SSE Renewables, Equinor and Vårgrønn joint venture."

| Themes | Case study examples of employment and skills initiatives |
|--------------------------|---|
| <p>Transition</p> | <p>SSER published and is actively implementing a market-leading Just Transition Plan, to support workers in a fair and smooth way to net-zero¹⁰.</p> <p>Berwick Bank team members who have moved from oil and gas to renewables</p> <p>SSER interviewed team members who have chosen to transition from previously high carbon roles in the oil and gas industry, into renewables and presented the interviews on the SSER website. This promotes the career change and provides valuable insights for those thinking of making the career change.</p> |
| <p>Diversity</p> | <p>Gender imbalance</p> <p>Both RWE and SSER are active members on the OWIC People and Skills workstream, including on the Investment in Talent Group (the strategic advisory board) Diversity and Inclusion.</p> <p>RWE and others joined forces to collaborate with Pembrokeshire County Council and Pembrokeshire College to create a careers initiative called SPARC¹¹, inspiring a new and more diverse workforce in local secondary schools in under-represented sectors such as renewables, construction and engineering.</p> <p>SSER and RWE are both members of POWERful Women, an organisation dedicated to promoting growth and leadership development of women in the energy sector; the organisation's prime objective is to ensure that women are properly represented within middle management and leadership roles, with a target of at least 40%.</p> <p>Neurodiversity</p> <p>In September 2023, SSER commenced a partnership with Salvesen Mindroom¹² a Scottish charity supporting children and young people with neurodivergent conditions. SSEP was the headline sponsor of Salvesen Mindroom's global "It Takes All Kinds Of Minds" 2023 conference, in which SSER colleagues shared their experiences and learnings. To enhance support for neurodivergent employees, SSER facilitated workshops and cross-industry panel discussions. SSER are working with Salvesen Mindroom to upskill SSER's trainers, enabling them to understand different learning styles and apply neurodiverse-friendly techniques to our communications content. To raise awareness internally, SSER's Disability, Neurodiversity, and Chronic Health community hosted Neurodiversity Week, featuring events and content on understanding and embracing neurodiversity.</p> |

¹⁰ [Just Transition | SSE](#)
¹¹ [New Careers Initiative to SPARC Female Interest - Pembrokeshire College](#)
¹² [2023-id-report-v11-final.pdf \(sse.com\) \(pg. 19\)](#)

10 Implementation, monitoring and next steps

85. This OSEP provides an understanding of the education and employment environment within Tendring, Essex and into Suffolk. Against this the Applicant has identified key themes and example activities that North Falls could implement to maximise the socio-economic benefits of the project and ensure skills capacity constraint concerns are addressed.
86. Further stakeholder engagement to refine the approach and consider how the Applicant can support existing initiatives and ambitions of education, skills and supply chain organisations in the region will be undertaken. The Applicant will also continue to develop the approach to implementing the agreed activities and propose measures for monitoring them, with timeframes where appropriate. This will be detailed within the final SEP, secured under DCO Requirement and developed post-consent.
87. As well as supporting external initiatives, there are many existing initiatives that the Applicant has already implemented within other development and operational projects across the country that North Falls could adopt as part of its approach.
88. Evaluation of the success of the activities will be undertaken on a periodic basis and will be key to understanding if the SEP objectives are being met and also understanding the wider economic benefits North Falls is having within the local region. Where relevant, this will be communicated to key stakeholders and the SEP updated with feedback as it is received.
89. The approach identified within the SEP will be open to adaptation and flexibility given it may be necessary to adapt the commitments, implementation, and monitoring to reflect changes in the regional area, local economy, or industry as the project moves forward.

11 References

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|--|
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Appendix A. Skills and employment baseline

90. Given that onshore infrastructure is proposed to be located in Tendring, Essex, the focus of the OSEP is on Tendring and wider Essex as this is where the majority of local jobs are anticipated to be created. However, construction workforce demand may cross into Suffolk and the operations base may be located in East Suffolk or Essex and so employment and skills implications on Suffolk are also important to consider. Baseline skills and employment data for Suffolk has been presented alongside the data for Essex.
91. It should be noted that the baseline data provides an up to date picture as of the 1st of November 2023 (when the latest data was collected).

A.1 Population

92. In 2021, the total populations of Essex and Suffolk was 1.86 million and 761,000 residents respectively (ONS, 2022a). There were around 1.14 million core working aged people (between the ages of 16 and 64) in Essex (61% of the total population) and 451,000 in Suffolk (59% of the total population). In both areas the share of working age population was reported to be lower than the national average (63%).
93. According to ONS 2018-based population projections, by 2033 there will be an additional 123,000 residents in Essex, whilst there is projected to be 43,600 additional residents in Suffolk. By 2043, ONS projects that the overall populations of 13% in Essex and 9% larger Suffolk, which equates to 190,000 and 67,900 more respectively.
94. In Essex, the working age population (aged 16 to 64) is expected to increase at a faster rate (5%) than the national average (3%) over the period 2018 to 2033. This is positive in terms of providing a growing pool of labour. In contrast, Suffolk's working age population is expected to decline by 1% compared with the base year. By 2043, the working age population in Essex is projected to be 59,000 people larger, whilst in Suffolk the Working Age Population is projected to be 5,000 people smaller. This declining number of the working age population in Suffolk is a concern as declining working aged population reduces the pool of labour available to employers, thus making it harder to grow the economy and fill vacancies.
95. The population aged 65 and over is expected to increase significantly in both Essex and Suffolk with an increase of 27% and 32% respectively between 2018 and 2033. By 2043, the 64+ age demographic in Essex is projected to be 117,600 people larger (39%) larger than 2018, whilst in Suffolk there is projected to be a larger increase of 44% aged 64+ year olds which equates to 77,500 people (Plate 6.4).

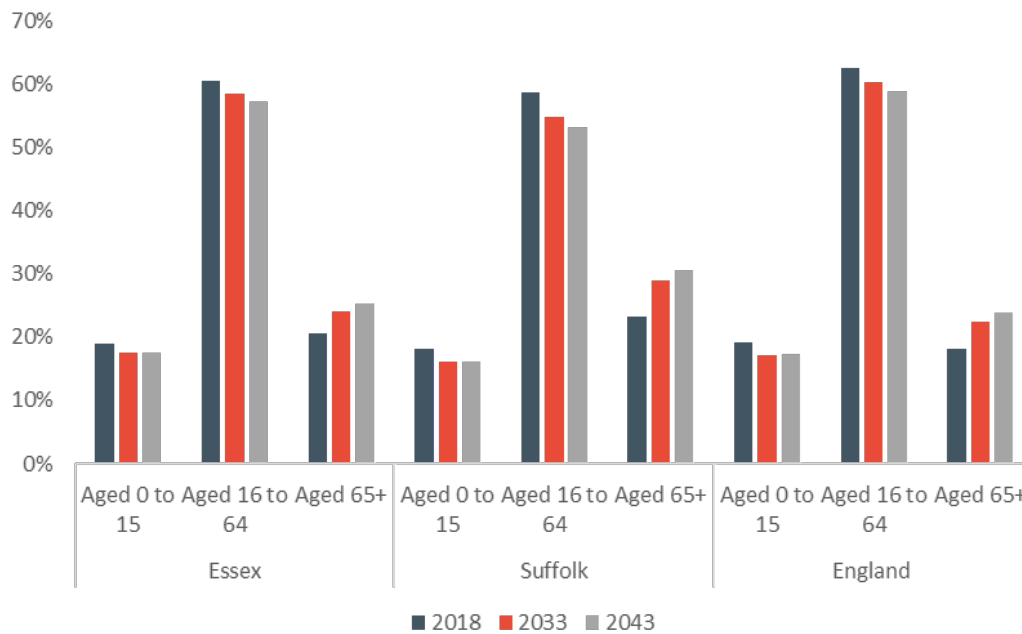


Plate 6.4 Population age distribution in Essex, Suffolk and England

96. These overall trends of rapidly increasing 64+ aged population in Essex and Suffolk is also reflected in workforce requirements projections. It is estimated that the total workforce requirements between 2020 and 2035 across all occupations in Essex specifically will be 517,000, 437,000 of which are being created through replacement demand, because of people leaving the workforce. In sectors specifically related to the workforce requirements of construction-related occupations in Essex, as seen below, there will be a projected 71,000 total requirement between 2020 and 2035. 72% (51,000 jobs) of the total workforce requirement will come from replacement demand (Plate 6.5).

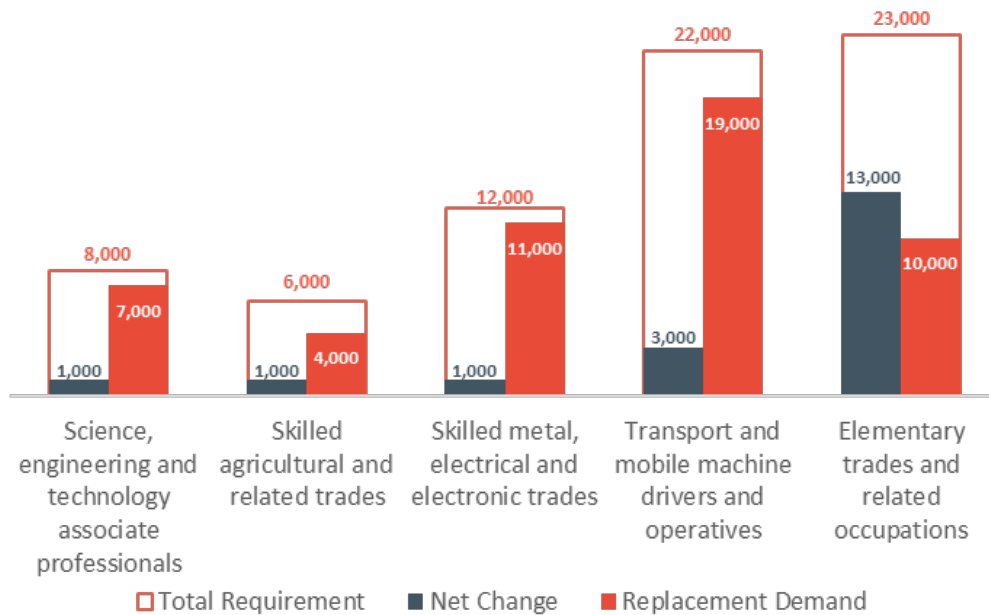


Plate 6.5 The total projections requirement of related skills in Essex, 2020-2035

97. This trend of an increasingly older population alongside stagnant or declining working age populations poses a challenge as there will be more people leaving the workforce than entering it, and therefore not enough talent coming through to replace those who are retiring. This will increase overall labour market pressures and make it harder for employers to recruit.

A.2 Labour Market

98. For the period from April 2022 to March 2023 both Essex and Suffolk had a higher percentage of economically active people aged 16-64 than the UK (78.3%), at 80.3% and 81.3% respectively (ONS, 2023a). The employment rate in Essex (77%) and Suffolk (79%) is slightly higher than the national average (76%). The latest rates of economic inactivity of the 16-64 aged population was lower in Essex (19.5%) and Suffolk (18.7%) than the average in the UK (21.7%) (ONS, 2023a). The unemployment rates (3.3% and 2.3% respectively compared to 4% nationally) are reasonably low.

99. For the period from July 2022 to June 2023, both Essex and Suffolk had a higher employment rate within the 16-64 population than the UK (75.5%), at 77.3% and 79% respectively (ONS, 2023a). When this total 16-64 population is broken down it is possible to see that, the employment rate of 25-49 is higher in Essex (87.3%) and Suffolk (88.2%) than the UK average (85.1%). However, in Essex, the employment rate is lower for the 50-64 age category at 70.4% than both Suffolk (75.4%) and UK average (71.2%).

100. Employment

101. Based on the latest Business Register and Employment Survey (BRES) data (ONS, 2023b), there were an estimated total of 763,000 jobs in Essex, and

347,000 jobs in Suffolk in 2022. In full time employment (FTE)¹³ terms, it is estimated that this corresponds to 616,750 FTE jobs in Essex and 279,250 FTE jobs in Suffolk.

102. Essex and Suffolk show a number of strengths in sectors most relevant to the offshore wind farm supply chain.
103. There is an existing supply chain in East Suffolk catering toward the energy sector. There are well established organisations such as: Orbis Energy (situated in Lowestoft), the EEEGR, the New Anglia Advanced Manufacturing and Engineering group, and the East Coast Manufacturing Group (ECMG) supporting local businesses in harnessing the opportunities associated with offshore wind. Insights gained from consultations undertaken as part of the socio-economic assessment detailed in Chapter 31 Socio-economics imply that East of England is seeing skills needs around project planning and consenting, and the supply chain's most pressing needs are around engineering, fabrication and welding.
104. Employment in construction, land-based transport and civil engineering is more concentrated in Essex than the national average. In Suffolk, manufacturing, construction, land based transport, civil engineering, energy generation and marine transport all have an LQ above 1, indicating the local economy has supply chain strengths in several key sectors which could potentially benefit from the development.
105. The construction is a particularly important sector to consider in the OSEP, 9% of Essex's employment is in the construction sector and 7% in Suffolk (LQ of 1.7 and 1.4 respectively) (ONS 2023b), indicating a relative strength in this sector in both counties.

A.3 Skills

106. Levels of employment within Essex and Suffolk are dependent on the skills available within the respective economies. The DfE Employer Skills Survey data at a Local Enterprise Partnership (LEP) level (DfE, 2020) provides an indication of whether skill shortages are faced within Essex and Suffolk.
107. Plate 6.6 shows the number of businesses reporting skill shortage vacancies by sector. In the New Anglia Local Enterprise Partnership (NALEP) area, 22% of existing vacancies are skills shortage vacancies. This is lower than the proportion in SELEP and England (both 25%).
108. New Anglia businesses in manufacturing (32%), construction (32%) and business services (31%) were the most likely to have reported skills shortage vacancies. Similarly, in SELEP, businesses in financial services (42%), construction (38%) and manufacturing (38%) were most likely to report skill shortage vacancies.

¹³ A unit that indicates the workload of an employed person. An FTE of 1.0 is equivalent to one full-time employee, whilst a part-time employee working half the hours a full-time employee does would be recorded as 0.5 FTE.

109. In addition it has been noted by stakeholder consultees including Essex County Council that there are significant local skills shortages in sectors required in the construction of NSIPs and that there are a large number of NSIPs proposed in the local area.

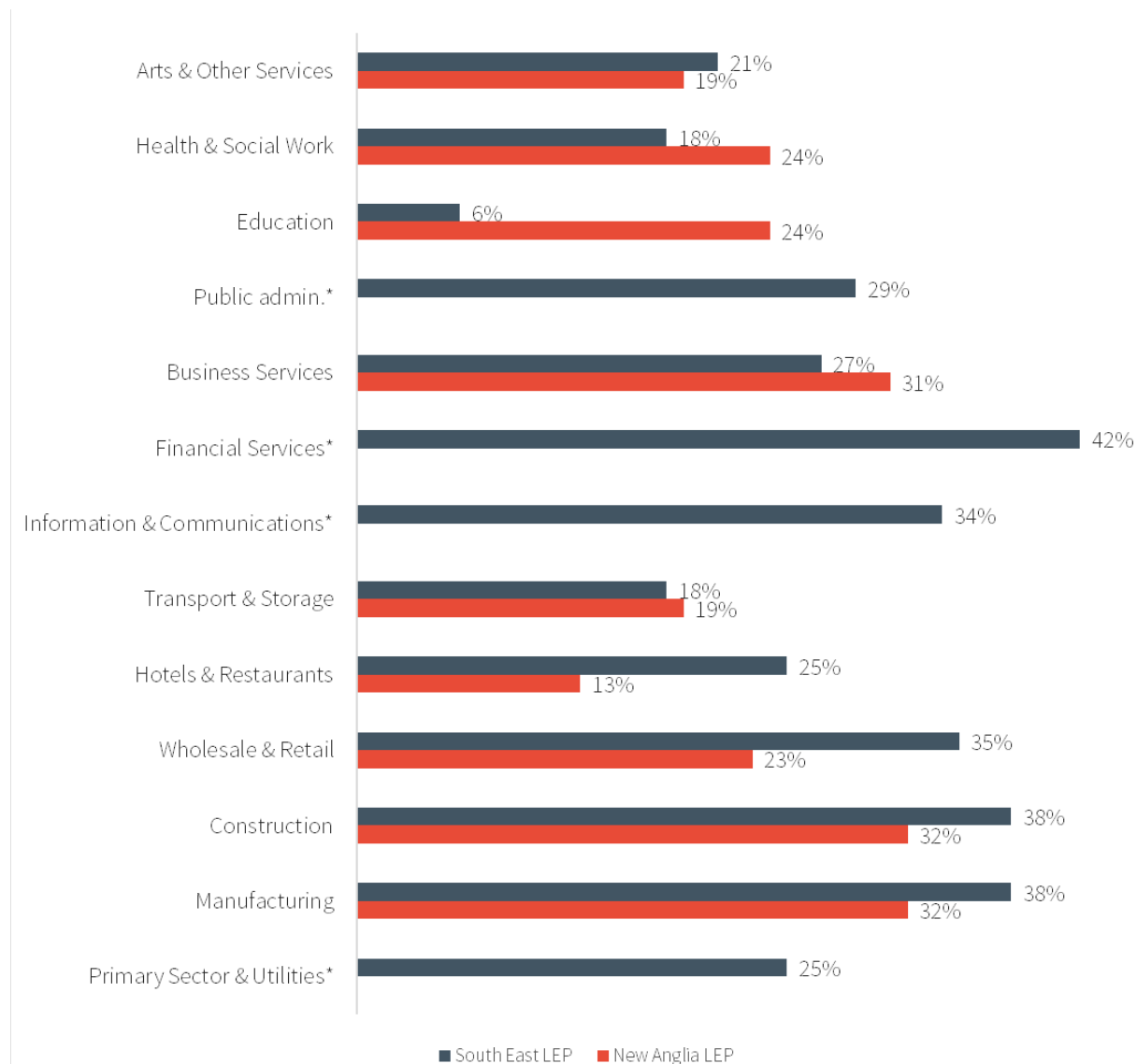


Plate 6.6 Businesses reporting skill shortage vacancies by sector.

*Sample size does not deem significant results and are therefore not displayed. NALEP N=18,575, SE LEP, N= 48,758

110. More recent skills data has been made available in the 2022 NALEP Skills Advisory Panel’s Skills Report (NALEP, 2022). This highlights that labour market shortages are a key challenge for the region, with both a high number of vacancies, as well as a mismatch of skills required and the available workforce. Shortages are particularly exacerbated in the region’s foundation sectors, including logistics, agri-food, tourism and hospitality, construction and care, as well as some of the areas potential growth sectors, including ICT and engineering. Additionally, whilst universities attract ambitious and academic talent each year, opportunities to retain this talent need to be capitalised on (NALEP, 2022).

111. The Skills Report additionally highlighted the impact that Covid-19 had on both skills supply and recruitment activity in the region (NALEP, 2022), with particularly lower skill occupations experiencing the highest increase in job postings between 2019 and Q4 2021, with job postings for Elementary Administration and Service Occupations up 95% higher, and Caring Personal Service Occupations job postings up 76%. However, some higher skills are also in demand, with job postings for Science, Research, Engineering and Technology Professionals up by 73% between Q4 2019 and Q4 2021 (NALEP, 2022).
112. The Norfolk and Suffolk LSIP echoes the sentiment in the wider NALEP skills report and highlights that the economy is skewed towards occupations that require a lower level of qualifications (Norfolk and Suffolk Chambers of Commerce, 2023). Retail and Wholesale, Healthcare and admin and support services dominate the total employment in Suffolk specifically. However, with an overall lower level of skills and lower wages in the Norfolk and Suffolk region than national averages, there is room for local and national government to improve skills training provision.
113. The SELEP skills report from 2022 highlights that recruitment activity following a loss of jobs during the pandemic did not recover to pre-pandemic levels until early 2021 (SELEP, 2022). Specifically lower skilled occupations experienced the highest increase in job posting in Q4 2021 when compared to the same period in 2019, with job postings for elementary administration and service occupations 95% higher. Additionally, both Secretarial and Related Occupations and Process, Plant and Machine Operatives have job postings 70% higher, with Caring Personal Service Occupations job postings up 76%. In terms of high skilled roles, job postings for Science, Research, Engineering and Technology increased by 73% between Q4 2019 and Q4 2021.
114. The Essex LSIP notes a number of relevant big hitting sector in terms of employment and skills growth (Essex Chamber of Commerce, 2023a). The report outlines how many of the skill requirements are cross cutting- namely green, digital, soft skills, leadership and management. Notably, construction is predicted have very high demand for skills and employment due to factors such as the need for housing and infrastructure growth. Population increases (of which is ageing) will require increasing levels of employment in health and social care. The following table in Plate 6.7, was produced in the LSIP report to set out the occupation, skills, outlook, courses and facilities that these most relevant sectors face:

| Sector | Essex now – top posted occupations | Top Specialist and cross-cutting skills | Future outlook / factors to address | Examples of courses and facilities locally |
|---|---|---|---|---|
| Construction and the built environment – 58,000 people employed across Essex | Top posted occupations – <ul style="list-style-type: none"> Construction Helper/Worker (1975) Labourer/ Material Handler (1656) Quantity surveyors (1565) Forklift/Pallet Jack Operator (906) Manufacturing Machine Operator (451) Carpenter (761) Validation Engineer (575) Land Surveyors (526) HVAC Mechanic Installer (496) Repair/Service Technician (496) | <ul style="list-style-type: none"> Marketing Construction Forklift Truck Carpentry Project Controls Communications Management Customer Service Planning Detail Orientated Loading and Unloading Self-motivation Problem Solving Operations Strong work ethic Project Planning Warehousing Plumbing Painting Procurement | <ul style="list-style-type: none"> Male dominated, ageing workforce – need to diversify Competition from London Perception and awareness – a barrier Large infrastructure and housing – significant Growing need for green, digital, retrofit, modular and low carbon skills Shortage of construction tutors and latest industry knowledge of existing tutors | <ul style="list-style-type: none"> Chelmsford College Construction Centre Colchester Institute Construction & Built Environment Harlow College 'Getting into Construction' |
| Digitech Over 37,000 people employed across Essex | Top posted occupations – <ul style="list-style-type: none"> Computer Support Specialist (1744) IT Project Manager (607) Database Administrator (336) Software QA Engineer/Tester (282) Information Security Engineer/Analyst (261) Network/Systems Administrator (250) Network/ Systems Support Specialist (239) Data Engineer (148) Hardware Engineer (144) Project Manager (73) | <ul style="list-style-type: none"> Marketing Technical Support Help-Desk Support Microsoft Office 365 Active Directory Microsoft Azure SQL (Programming Language) Operating System Window Servers Communications Management Customer Service Problem Solving Trouble shooting Detail orientated Planning Operations Microsoft Office Leadership | <ul style="list-style-type: none"> Impact on all sectors due to the 'digital revolution' as well as specialists needs Disproportionately male Resilient and jobs able to be done flexibly / remotely Shortage of tutors and speed of sector change impacting on knowledge of existing tutors | <ul style="list-style-type: none"> USP College XTEND Campus Centre for Digital Technologies (Basildon) Harlow College IT, Computing and Cyber Security The Lightbulb (apprenticeships and Bootcamps) |
| Education Over 71,000 people employed across Essex | Top posted occupations – <ul style="list-style-type: none"> Teaching Assistant (2728) Tutor (2533) Primary School Teacher (1612) University Lecturer (1155) Secondary School Teacher (694) SEN Teacher (533) Science Teacher (508) Supply Teacher (471) Vocational Education Tutor (460) English/ Language/Arts Teacher (389) | <ul style="list-style-type: none"> Marketing Working with Children Autism Spectrum Disorders Special Education Learning Support Lesson Planning National Curriculum Classroom Management Mental Health Mathematics Education Teaching Communications Management Mathematics Planning Enthusiasm Leadership Innovation Training and Development Positivity | <ul style="list-style-type: none"> Currently facing shortages, particularly given general recruitment challenges and in areas such as construction and engineering teaching A continued need given population growth | <ul style="list-style-type: none"> South Essex College – FE and HE teaching courses Colchester Institute Teacher Training courses HE locally also offering courses- e.g. University of Essex |
| Transport and logistics Over 52,000 employed across Essex | Top posted occupations – <ul style="list-style-type: none"> Delivery Driver (2965) Automotive Service Technician/ Mechanic (2367) Warehouse/ Inventory Associate (210) Labourer/ Material Handler (2035) HGV/LGV Class 2 Driver (1817) HGV/LGV Class 1 Driver (1041) Storage/ Distribution Manager (489) Van/Taxi/Shuttle Driver (467) Driving Instructions (454) Auto Body Technician (285) | <ul style="list-style-type: none"> Warehousing Marketing Forklift truck Palletizing Vehicle Maintenance Manual Handling Housekeeping Stock Control Order Picking Key Performance Indicators Customer Service Communications Loading and Unloading Detail orientated Lifting ability Management Strong work ethic Operations Self-motivation Sales | <ul style="list-style-type: none"> Impact of digital and robotics on future skills requirements and automation (e.g. warehousing) Thames Freeport and Freeport East to grow and expand economic activity near local ports Parts of sector (e.g. HGV driving) saw huge increase in demand throughout pandemic which has continued | <ul style="list-style-type: none"> South Essex College automated warehouse and supply chain and logistics qualifications South East Institute for Technology (IoT) HE also offering courses – e.g. International Logistics & Supply Chain Management (University of Essex) |
| Advanced manufacturing, Engineering & Aviation Over 47,000 people employed across Essex | Top posted occupations – <ul style="list-style-type: none"> Production Worker (1881) Maintenance Technician (1648) Utilities Technician (1142) Mechanical Engineering (1131) Civil Engineering (1095) Quality Inspector/ Engineering (824) Construction Helper/Worker (417) Industrial Engineer (409) Scheduler/ Operations Coordinator (363) Electronic/ Electrical Technician (300) | <ul style="list-style-type: none"> Marketing Maintenance Engineering Machinery Mechanical Engineering Field Service Management Systems Engineering Technical Management Construction Risk Analysis Communication Management Customer Services Planning Detail Orientated Problem Solving Operations Self-motivation Sales Computer Literacy | <ul style="list-style-type: none"> Ageing workforce impacting on skills needed – high need for digital skills Cross-over with digital and robotics and changing the skills needed Projected reduction in overall employment in the sector, but the ageing workforce, need for digital skills and competition from other sectors means a skills shortage is still likely | <ul style="list-style-type: none"> Harlow Advanced Manufacturing and Engineering Centre (HAMEC) South-East Institute for Technology (IoT) Braintree STEM Innovation Centre Stansted Airport College |

Plate 6.7 Essex big hitting sectors overview.

116. The Essex Chamber of Commerce produced an additional LSIP priorities document in June 2023, which outlined further information on skills sought by employers between February 2022 and February 2023 (Essex Chamber of

Commerce, 2023b). During this period, the top posted occupations for the construction and built environment sector¹⁴ were construction helpers (1,975 vacancies), labourers (1,656 vacancies) and quantity surveyors (1,565 vacancies). The frequency of adverts for specialised skills in the sector were marketing (28%), construction (12%) and Forklift truck driving (7%), whilst the top common skills advertised for the sector were communications (14%) and management (10%).

A.4 Education

117. The DfE (DfE, 2023b) provides a breakdown of schools in each local authority district by type of school, education phase and pupil characteristics for the 2022 academic year. There are 659 schools in Essex and 391 schools in Suffolk, the majority of which are primary schools (84%).
118. Additional data shows that a high proportion of 16–17-year-olds participate in education or training within Essex (91%) and Suffolk (90%) (DfE, 2023b). This is similar to the national average (92%). However, both Essex and Suffolk have higher rates of young people NEETs. Higher than the national average rate of 2.6%, at 3.4% and 4.3% respectively (DfE, 2023b).
119. Special schools are defined as schools which pupils aged 11 and older can specialise in one of the four areas of special educational needs:
 - Communication and interaction;
 - Cognition and learning;
 - Social, emotional and mental health; and
 - Sensory and physical needs.
120. Schools can further specialise within these categories to reflect the special needs they help with, for example autistic spectrum disorders, visual impairment or speech, language and communication needs. In total, there are 72 special schools in Essex and Suffolk collectively, which make up a small provision of total schools (7%) (DfE, 2023b).
121. The current training provider landscape in Essex is outlined within the latest LSIP (Essex Chamber of Commerce (2023a). there are currently two networks in operation in Essex: The FEDEC and the EPN. The former brings together colleges locally and the latter brings both colleges and providers. Additionally there is an Institute for Technology within the SELEP area, which is led by the South Essex College, with partners including: Anglia Ruskin University, Chelmsford College, Harlow College, DP World (London Gateway), Port of

¹⁴ Defined by a breakdown of SOC classifications on p. 14 of the Essex Chamber of Commerce additional LSIP priorities document.

Tilbury, Stansted Airport, Morgan Sindall Construction, Princess Alexandra Hospital and Leonardo (Essex Chamber of Commerce, 2023a)¹⁵.

122. Essex County Council have recently launched an Apprenticeship Hub for 16-25 years olds in Basildon, Canvey Island and Harlow. The Hub's aim is to create 300 new apprentice opportunities in Essex in 2023 (Essex County Council, 2023), and both works with employers to create the opportunities, as well as young people to apply.
123. Additionally, there is an array of Essex based training providers who help pupils develop the specific skills required in the construction industry, these are:
 - South Essex College Construction Centre – Basildon
 - Construction Skills Centre – Harlow College
 - Chelmsford College Construction Centre
 - SECTA Construction Academies – South Essex
 - STEM Innovation Centre – Braintree (Colchester Institute)
 - Colchester Institute
 - BuildSkill – Colchester
 - Construction 360 – Basildon
124. The Coastal Communities Alliance's recent research showed that there are lower levels of education attainment seen coastal areas across the nation, when compared to their inland neighbours (The Coastal Communities Alliance, 2023). This includes coastal residents being less likely to have a degree and disadvantaged students in coastal areas being worse off than in non-coastal areas. The Coastal Communities Alliance highlights these reasons as being linked to higher educational isolation, recruitment and retention difficulties, struggles with public transport connectivity and lower levels of digital connectivity.

A.5 Qualifications

125. The proportion of residents in Essex with no qualifications (16%) is far larger than the is seen in the SELEP area (6%). Conversely, the proportion of apprenticeships in Essex is higher than the proportion seen in the SELEP area (5% vs 2.9%) (ONS, 2023c).
126. The number of residents with Level 4+ qualifications is highest in the districts of Uttlesford, Colchester, and Chelmsford (29%, 28% and 26% respectively) (ONS, 2023c).
127. At local authority level, the district with the highest proportion of residents with no qualifications is Brentwood (20%), however, this is also the district with the highest proportion of apprentices at 12% (ONS, 2023c). Overall, across Essex in the 2021/22 academic year, apprenticeship achievement is heavily swayed

¹⁵ The Essex Opportunities Careers Magazine ([Essex Careers \(essexopportunities.co.uk\)](https://essexopportunities.co.uk)) highlights both information on opportunities for work in Essex, but also the training providers in the region who deliver the necessary education and training requirements needed

towards the health, public services and care sector, followed by the business, administration and law sector (DfE, 2022a).

128. In Suffolk, the proportion of residents with level 3+ qualifications sits at 54.5% which is lower than the average than the NALEP (55.7%) and the English average (61.4%). The proportion with Level 4+ qualifications in Suffolk however, is higher than the NALEP (36.5% vs 34.6%), despite still being below the national average of 43.2% (ONS, 2022b). In East Suffolk specifically, the proportion of residents with Level 4+ qualifications is higher than in both Suffolk and NALEP, but remains below the national average.
129. Specifically regarding apprenticeships in Suffolk, with 3.6% of the population between the ages of 16 and 64 having a trade apprenticeship, this is a more common route of further education than on the national level where the average is 2.7%. In Ipswich the rate of trade apprenticeships is even higher at 4.1% (ONS, 2022b).
130. In the Norfolk and Suffolk LSIP area, there has recently been funded programmes such as Skills Deals and Skills Bootcamps which are designed to work with employers to upskill new and existing staff to nationally recognised standards, as well as Apprenticeship Suffolk initiatives that offer support for business in the form of advice and guidance on apprenticeship routes. Additionally, there is a large amount of coverage in terms of apprenticeship training provision and has in excess of 80 providers offering a route to training (Norfolk and Suffolk Chambers of Commerce, 2023a).
131. One example of where the New Anglia Skills Deals have come into fruition in Suffolk, is through the dedicated East of England Offshore Wind Skills Centre based at the East Coast College Great Yarmouth Campus¹⁶. The purpose of the facility is to train people who wish to reskill and gain sustainable employment in the offshore wind industry on the New Anglia Energy Coast and has been supported by Norfolk County Council, Suffolk Local Authorities and Education and Skills Funding Agency. Developers, operators and supply chain companies are also helping to support the cost of training – investing thousands to sponsor places. The centre currently offers 2 courses at the centre, which are:
 - A 12 week full-time Level 2 Diploma in Safe Working Practice in the Wind Turbine Industry
 - A 3-4 week Transition to Offshore course for engineers and technicians who are already working in closely aligned industries.

A.6 Skills projections

A.6.1 Overall Skills Projections

132. In March 2023, The DfE released the latest labour market and skills projections for 2015-2035 in their Working Futures Report (DfE, 2023). This data helps provide a more up to date view on how employment and skills requirements may fluctuate and change in the future. In Essex, the construction sector is

¹⁶ [app explore organisations offshore-wind-skills-centre-475 - icanbea-org](https://www.app.exploreorganisations.com/offshore-wind-skills-centre-475)

identified as seeing significant employment growth up to 2035, with an estimated 1.6% per annum increase in employment, which equated to +25,000 jobs (absolute change). This figure is the highest of all industrial groups¹⁷ and aligns strongly with LSIP messaging around growth in the construction sector linked to unprecedented levels of development coming forward in the local area.

133. At an occupational level Essex will see largest increases in professional occupations, (+41,000), most notably of which will include 24,000 more professionals working in science, research, engineering and technology from 2015 to 2035 (DfE, 2023). Between 2015-2035, significant employment increases are projected in the associate professional occupations (c.+18,000) whilst there is expected to be a decrease in the levels of both administrative and secretarial occupations (-5,000 jobs), as well as elementary occupations (-1,000 jobs) (DfE, 2023).
134. The Working Futures report for the Norfolk and Suffolk LSIP area highlights that between 2020 and 2035, there will be the largest increase in non-marketed services (+23,000) and business and other services (+18,000), whilst there will be a decrease in manufacturing employment of 5,000 and no net change for primary sector and utilities (DfE, 2023).
135. In terms of projections for occupations, across all industries in Norfolk and Suffolk the largest increase since 2020 will be seen in professional occupations with a 34,000 increase, followed by associate professional occupations (+16,000). The number of administrative and secretarial occupations, as well as elementary occupations will decrease by 2035 (by -6,000 and -1,000 respectively), whilst there will be no change in skilled trades occupations, and a marginal increase in sales and customer service occupations (+2,000) (DfE, 2023).
136. The Norfolk and Suffolk LSIP highlights how Social and Skills mobility is a key priority for the local authorities and the provision of higher paid (Good Job/Fair Pay) employment opportunities. Lower skills levels and lower wages demonstrate that there could be significant room for local and national government to improve skills training provision.

A.6.2 Construction Sector projections

137. Of note, is the construction sector's predicted annual growth rate of 2.2% between 2020-2035. The sector is the only sector estimated to have grown during the period of, and subsequent aftermath of, the Covid-19 pandemic. By 2035, construction will account for 12.5% of all employment in Essex, Southend and Thurrock, up from the 9.2% it accounted for in 2015 (DfE, 2023).
138. As the construction sector is perceived as a strategic sector for Essex County Council, they have produced a specific skills report for the sector titled 'Construction Growth in Essex 2020 to 2040'. This report provides further baseline and forecast data for Essex's construction industry and shows that the

¹⁷ Industry sectors are broken down into: Primary sector and utilities, manufacturing, construction, trade, accommodation and transport, business and other services as well as non-marketed services.

size of the resident construction workforce has consistently tracked above the number of jobs available locally by between c.5,000 and 19,000 (Essex County Council, 2020a). This is reflective of the role Essex plays in supplying labour to support growth in neighbouring areas.

139. Strong baseline demand growth is also forecasted. According to the East of England Forecasting Model (EEFM), an average growth of 1.1% per annum is expected between 2020 to 2045 (East of England Local Government Association, 2020). This implies that even before additional demand from major projects is taken into account, the resident construction workforce will need to grow by an estimated 750 workers per annum to meet demand. The baseline labour supply forecast, based on the growth rate of the Essex working age population from the EEFM, is less strong, with the pool of available labour expected to grow by an average of 0.3% per annum 2020-2040. As such, the supply of labour (without intervention) is forecast to fail to keep pace with demand. It is estimated that the shortfall of labour supply in the peak demand year (2031) will be around 12,900.
140. The first edition of the Essex Opportunities Careers Magazine (Essex County Council, 2023) included a sector spotlight on the construction industry in Essex and the opportunities that will be available within the industry going forwards. It is described as one of the largest growing sectors in Essex, which will require a 30.5% increase in the number of jobs by 2030, when compared to 2019 (Essex County Council, 2023a). This is far higher than the 0.4% increase that is going to be required nationally. Importantly, the talent pipeline needs to be diverse, with opportunities created for women, ethnic minority pupils and for those who are disabled.
141. At the occupation level in Essex, the greatest shortages are expected to be in non-construction professional roles (e.g. managerial and office based roles), wood trades and labourers. Peaks in demand also result in significant temporary shortages of plumbing and HVAC trades, electrical trades, plant operatives and civil engineering operatives (Essex County Council, 2020a).
142. Furthermore, the Working Futures employment projections for the Norfolk and Suffolk LSIP highlight that construction jobs will increase by an estimated 10,000 jobs between 2020-2035 to 72,000. This is a net increase of 16.2% (DfE, 2023). The majority of this employment increase (38%) will be from professional occupations, followed by Managers, directors and senior officials and associate professional occupations (both 11%) (DfE, 2023).
143. In the Technical Skills Legacy Report (Suffolk Growth, 2022), Suffolk Growth further set out how the workforce need in the construction and engineering sectors to be able to deliver the forecasted 220+ regional infrastructure projects in Suffolk across the next 15 years. At the time of writing the report, Suffolk growth outlined how there were:
 - 13,000 people are in the defined technical workforce in Norfolk and Suffolk, 20,000 people were in the higher professional and technical job roles; and 28,000 (25%) were road transport drivers.
 - The number of people in skilled construction trades and operatives in Suffolk has been in decline over the past 15 years. Those in skilled trades

(+30%) and transport drivers (+12%) have increased over the past 15 years.

- A majority of employer respondents said that they were experiencing shortages of specific skills or roles, with worsening conditions. Employers report 3-9 months to fill technical roles and skill providers of tech roles are taking up to 18 months to fill.
 - A total of around 10,000 additional technically skilled staff is required by 2027. The top-50 NSIPS (by value) planned for Norfolk and Suffolk are predicted to require the filling of at least 43,000 technical job roles over the next 15 years.
 - The need for additional numbers of technically-skilled people implies an imperative to expand technical training by at least 10% in the next 5 years.
144. This report is consistent with the 2019 East of England Forecasting Model (EEFM), which shows that the construction sector will have an average growth of 0.9% per annum is expected between 2020 to 2040. The baseline labour supply forecast, based on the growth rate of the Suffolk working age population from the EEFM, is less strong, with the pool of available labour expected to grow by an average of 0.2% per annum 2020-2040. As such, the supply of labour (without intervention) is forecast to fail to keep pace with demand.

A.6.3 Green Jobs and Skills Requirements

145. The Green skills Infrastructure Review for Essex (Essex County Council, 2022) estimates that as of 2022, there were between 3000-4000 green skills¹⁸ jobs in Essex. However, future demand scenarios predict a future need for between 5,750 (baseline prediction) to 45,000 (Essex's predicted contribution to the based on the UK Government's 2030 green jobs ambition) jobs. These demand scenarios assume that Essex broadly retains its current proportions of 'directly green jobs', but it is also recognised that for every new 'directly green job', there will also be a ripple effect of supporting jobs created, such as in recruitment, HR and administration.
146. The Norfolk and Suffolk LSIP highlights the need to increase the regions technical skills capabilities within the priority sectors of net zero and agri tech, specifically highlighting the need to install energy efficiency measure, such as ground and air source heat pumps, over the coming years which will require new skills adoption (Norfolk and Suffolk's Chamber of Commerce, 2023). Preliminary analysis suggests that in a gradual ramp up of net zero by 2030 scenario, a peak of 85,000 FTE jobs will be required by 2029 in Suffolk, primarily in the sectors of energy storage, large solar PV installations and onshore and offshore wind (Norfolk and Suffolk's Chamber of Commerce, 2023). An estimated 9,000 of these 85,000 jobs will be in onshore and offshore wind specifically.

¹⁸ In the report, green skills are defined as "the knowledge, experience, values, attitudes and abilities that support carbon reduction and resource efficiency to increase climate resilience and enhance natural assets" (p. 8)

A.7 Macroeconomic factors influencing skills and employment

A.7.1 Covid-19 pandemic

147. The Covid-19 pandemic not only immediately impacted the labour market, but also the ability to measure it due to the reliance on data collected from surveys of households and businesses. The immediate impact was a sharp drop in national GDP of 20% (The Financial Times, 2023) as well as impacts of business closures, the introduction of the furlough scheme, the increase of remote working, as well as implications for education delivery teaching in schools, colleges and universities. Whilst it is expected that the UK economy avoided a recession in the wake of the pandemic (IMF, 2023), and it is estimated that the UK economy has now recovered to pre pandemic levels, the impact the pandemic has had on labour market participation is still felt. There are now 520,000 less people in the labour force than was expected pre pandemic as well as increased in labour market inactivity of the working age population (OBR, 2023).

A.7.2 Brexit

148. The OBR note that the new trading relationship between the UK and EU, as set out in the 'Trade and Cooperation Agreement' (TCA) that came into effect on 1 January 2021, will reduce long-run productivity by 4% relative to remaining in the EU. This largely reflects the view that the increase in non-tariff barriers on UK-EU trade acts as an additional impediment to the exploitation of comparative advantage. The OBR also predict that both exports and imports will be around 15% lower in the long run than if the UK had remained in the EU (OBR, 2023).

149. Before Brexit, it was estimated that 40% of all construction workers in the UK came from other EU countries (Build Safe, 2023). This may have had a significant impact on the cost of labour in the construction industry which has increased by 30% since the referendum (Guardian, 2023).

A.7.3 Economic Forecasts

150. The latest economic forecasts from the Office of Budget Responsibility (OBR, 2023) predicts inflation will fall to 2.9% by the end of 2023. The outlook for GDP improved from previous forecasts, with a compound growth rate of 3.5% p.a. in the middle of the decade, before easing back to 1.75% p.a. by the end of the OBR forecasts. In terms of employment, the OBR estimates a peak of unemployment levels of 4.4% in 2024, to coincide with GDP growth slowing, before falling to the estimated structural rate of 4.1% by the end of the forecast horizon. Conversely, the employment rate will fall to a trough of 60% in Q2 2024 before recovering by the end of the forecast horizon to 33.8 million people in employment, 900,000 higher than pre-pandemic levels (OBR, 2023), as shown in Plate A.1.

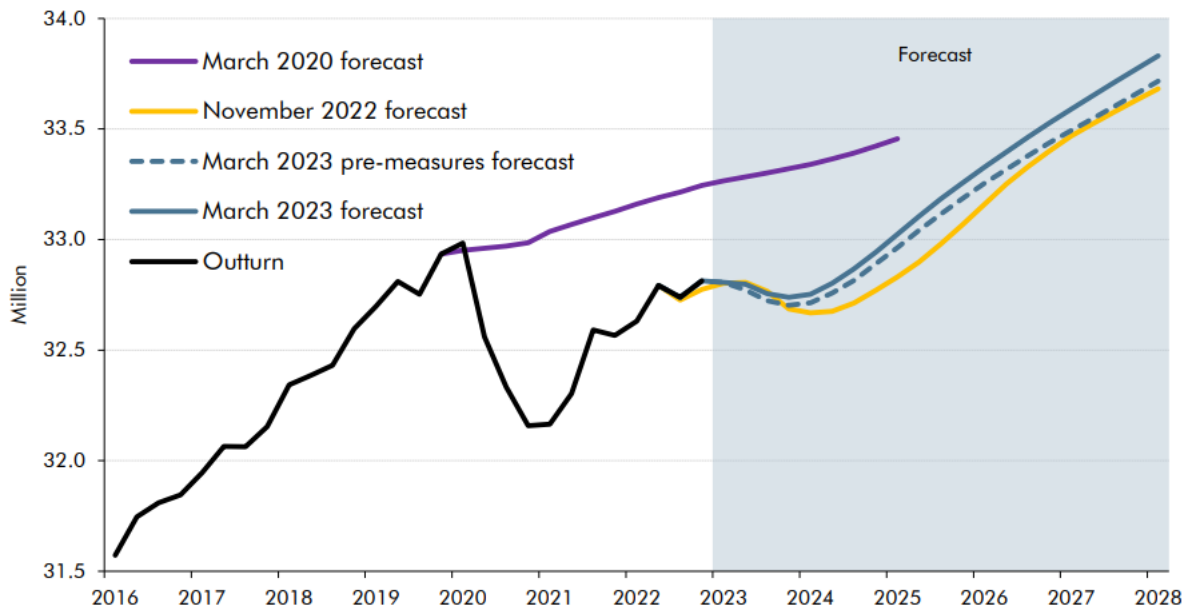


Plate A.1 UK employment forecasts, OBR, March 2023

151. The latest economic forecasts (Essex County Council, 2021) for Greater Essex shows a strong recovery in Gross Added Value (GVA) following the recession associated with Covid-19 (compound growth rate of 3.3% per annum from 2020 to 2024 slowing to 1.6% per annum after 2024). Employment in Essex is anticipated to continue to grow at a consistent rate of 0.6% per annum. In Suffolk, the latest economic forecasts taken in 2019 imply that GVA is expected to grow steadily across 2020 to 2040 with a compound growth rate of 1.4% per annum, as well as a consistent rate of employment growth of 0.5%. However, it should be noted that these estimates do not account for the economic shocks experienced in since the pandemic as well as the Ukraine War and the cost of living crisis in 2022/23.

A.7.4 Major infrastructure project pipeline and skills implications

152. Essex is experiencing major growth on a nationally significant scale and much larger than in other parts of the country. In 2021, SELEP, commissioned MACE to produce a report on the skills and employment requirements of major projects. At the time it was anticipated that the projects coming forward would result in £30bn of potential investment which would create demand for over 117,000 roles between 2025-2028 and over 67,000 between 2029-2038. Nearly 40,000 of these are due to be in Essex (Essex Chambers of Commerce, 2023). It should be noted that these forecasts are likely to no longer be accurate due changes in the projects coming forward especially when considering the timings of projects.
153. It is important to consider other infrastructure projects in the pipeline when attempting to understand the current and future demand for specific skills related to large infrastructure projects. Key developments as noted in the Essex LSIP (Essex Chamber of Commerce, 2023a) are:
- **Longfield Solar Farm** – Located in the north east of Chelmsford, this is a new solar photovoltaic array generating station and will require expertise in the energy, green, engineering, installations and construction sectors.

- **Rivenhall IWMF and Energy Centre** – Located in Braintree, this will be an integrated waste management facility and energy centre development. This will require skills and employment in energy, green, engineering, installations and construction sectors.
- **A12 Chelmsford to A120 Widening Scheme** – this project will widen the road where necessary from 2 to 3 lanes in each direction, as well as create two bypasses. Will require jobs in engineering, construction and planning roles.
- **Bradwell B new power station** – Located in Maldon this would be a nuclear power station capable of generating 2.2 GW of electricity, however this project was paused in Q1 2021 due to safety issues with the developer.
- **Lower Thames Crossing** – This is a new tunnel / road connecting Essex, Thurrock and Kent that is 23 kms in length under the River Thames, alongside improvement other road networks (M25, A2 and A13). Workers from Engineering, construction, tunnelling, robotics, project management and electrical will all be required.
- **M25 Junction 28 improvement** – To the west of Brentwood, this is an upgrade to the junction between the M25 anti-clockwise and the A12 in Essex and will require engineers, construction workers and planners.
- **Thurrock Flexible Generation Plant** – This is north of the existing Tilbury National Grid substation, off station Road in Thurrock. This comprises the construction and operation of gas reciprocating engines with up to 600 MW electrical capacity and battery storage with up to 150 MW electrical capacity, therefore requiring electrical engineering and construction.
- **Tilbury 2** – This project is located on the site of the former Tilbury Power Station, 1 km east of the existing Port of Tilbury. This will involve the construction of road and rail links to and from the site, involving construction workers, engineering workers and logistics.
- **Five Estuaries** – An offshore wind farm off the Essex Coast near Clacton-On-Sea that will include wind turbine generators and associated foundations and array cables. Although the scale of local employment may differ due to differences in procurement, the skills requirements for Five Estuaries is anticipated to generally mirror North Falls, with the need for roles including engineers, wind turbine technicians and construction workers.
- **Electric Lines: Bamford to Twinstead** – A 29 km linear route between the Bramford Substation, Suffolk and 1.5 kms South of Twinstead Tee, Essex, consisting of overhead lines, underground cables, a grid supply point substation and associated development. Requires the expertise of the engineering, construction and electrical sectors.
- **Oikos Marine & South Side Development** – located at the Oikos Storage Terminal, Canvey Island requiring construction, engineering and logistics expertise.

- **Sea Link** – Construction of a new offshore HVDC cable between Suffolk and Kent, with a converter station in Suffolk and Kent and including some of the Essex Coastline. The project will require skills in electrical engineering and construction.
 - **Norwich to Tilbury** – a reinforcement of the electricity transmission network between Norwich and Tilbury substations. This would reinforce the 400k high voltage power network in East Anglia to include a new substation in the Tendring District, requiring the expertise of electrical engineers and construction workers.
 - **Purfleet Regeneration** – This is a £1bn regeneration project in partnership with Thurrock council to include a creative hub on the River Thames alongside a new town centre with shops and restaurants, 2,850 new homes, integrated medical centre, improved transport infrastructure, new primary school and over 1,000,000 square feet of film and TV production studios. Later phases of the development will deliver a new university campus with a focus on health and creative arts. Construction workers, engineers and planning professionals will be needed.
 - **Sizewell C** – Sizewell C is a nuclear power station on the East Suffolk Coast which will supply 6 million homes with low carbon electricity and will employ 900 people across the local area. Sizewell C have made the commitment to these jobs being locally sourced from the Suffolk and North Essex area, including a ‘Young Sizewell C’ programmes for apprentices and placements as well as a range of skills in construction and engineering through to hospitality and project management¹⁹.
 - **Bathside Bay** - Bathside Bay, known as ‘Freeport East Harwich’, forms part of ‘Freeport East’, a partnership between Hutchison Ports, Harwich Haven Authority, New Anglia LEP, SELEP, Essex County Council, Suffolk County Council, East Suffolk Council, Tendring District Council, Babergh and Mid Suffolk Councils and the Haven Gateway Partnership. Centred upon the Port of Felixstowe, Harwich International Port, and the new port terminal development at Bathside Bay, it is on the world’s major trade routes connecting the UK directly with markets around the world. It is ideally placed to attract global investors looking to use the UK as a springboard to access European markets and beyond.
154. The LSIP notes that roles required for these projects are wide ranging but include higher concentrations of engineers, multiple construction trades, project managers, architects, manufacturers and logistics. This further illustrates that the scale of demand in major infrastructure development is vast and requires labour and skill sets in areas where there are already significant shortages. The report also concluded that the issue considered most critical is tutor shortages, as it presents a ‘bottle neck’, and impacts the ability to achieve other aims. Recent SELEP research found that there were 130 teaching vacancies in local

¹⁹ Sizewell C (2023) [Employment and Training Prospectus 2023-2024](#).

colleges and providers in construction and 57 in engineering, which illustrates the scale of the challenge (Essex Chamber of Commerce, 2023).

155. Another consideration for the skills demand in Essex, is the growth of housebuilding in the region. The Essex Housing Strategy states that emerging local plans in Essex will bring forward land to deliver c.148,000 homes by the mid 2030's. This equates to c. 9,700 per year (Essex County Council, 2021).
156. Essex is going to be the shared home to two new free ports: Thames Freeport and Freeport East. The Thames Freeport will include a skills accelerator and the potential for 20,000 new jobs, whilst Freeport East will generate 13,500 new jobs.

A.7.5 Community and deprivation levels

157. The Index of Multiple Deprivation (Ministry of Housing, Communities & Local Government (MHCLG), 2019) measures relative deprivation across LSOAs in the UK by compiling data across 7 domains, which include income, employment, education, health, crime, barriers to housing and services and the living environment.
158. Plate A.2 shows deprivation levels in Suffolk and Essex. In Essex, 3% of LSOAs within the area are in the 10% most deprived in England. This shows that overall deprivation levels are not considered to be high in the context of the rest of England, however there are pockets of higher levels of deprivation concentrated along coastal areas.

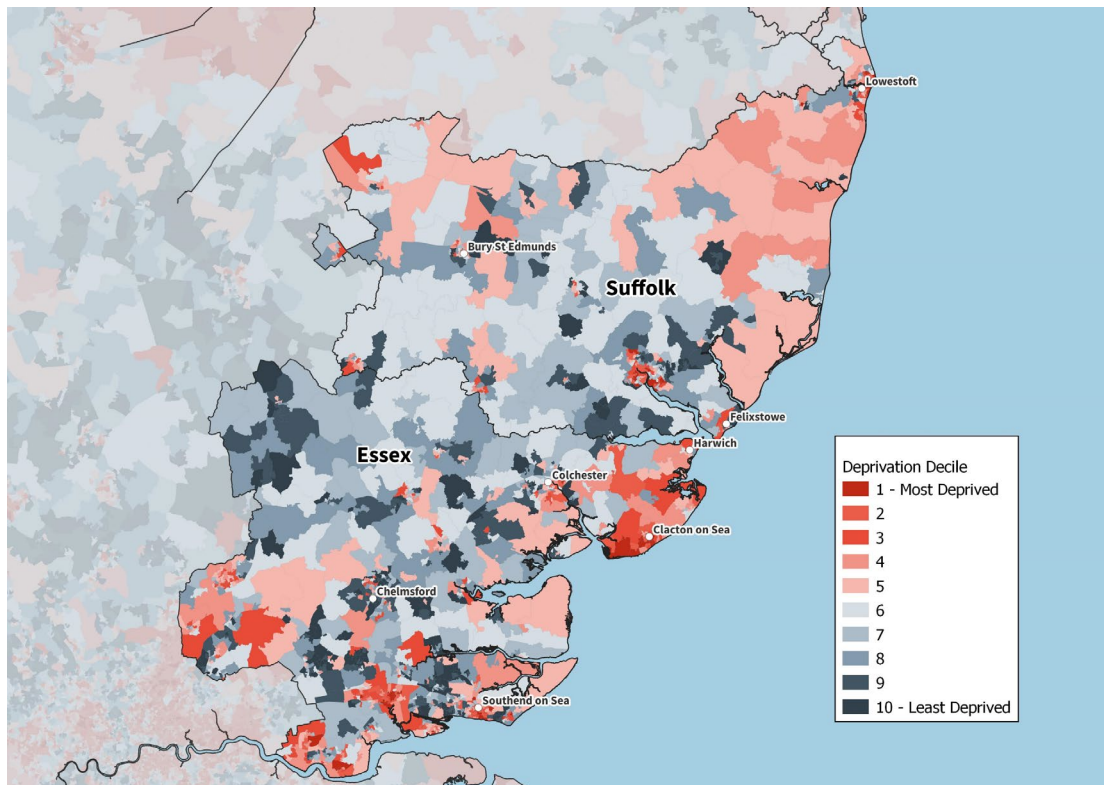


Plate A.2 Map of Deprivation, 2019

159. The 2019 IMD reports noted that there were an increasing partition between Uttlesford and Tendring, the least and most deprived districts in Essex (Essex County Council, 2020b). People living in more deprived areas face higher barriers to achieving higher quality of life, which encompasses factors such as difficulties in access to high quality education, skills and employment opportunities.
160. Particularly when looking at the domain of education, skills and training in Essex Tendring and Basildon have the highest proportion of neighbourhoods in the top 10% of deprived neighbourhoods nationally (20% and 19% respectively).
161. When considering the domain of employment across districts in Essex, Tendring has the highest proportion (18%) of LSOAs within the top 10% most deprived nationally. Similarly, regarding the domain of income, 18% of the LSOA's in Basildon fall into the top 10% of most deprived LSOAs nationally, followed by 15% in Tendring and 12% in Southend on Sea.
162. There are pockets of particularly high deprivation in Tendring, with one of the LSOA's in Tendring (Jaywick) being declared the most deprived neighbourhood in England. In addition Clacton-on-Sea in Tendring is the 14th most deprived LSOA nationally in the employment domain, and the 17th most deprived LSOA with regards to childhood deprivation. Characteristics of towns in Tendring such as Clacton and Jaywick display such high levels of deprivation for multiple reasons, including its peripheral location with poor transport, a long term lack of inward investment and prosperity, low levels of quality jobs, a lack of

diversification in the local economy and low educational attainment and skills (CMO, 2021).

163. In Suffolk 5% of all LSOA's are classed as being within the top 10% most deprived in England (MHCLG, 2019), and overall, Suffolk is not considered to be among England's most deprived local authorities (Suffolk Community Foundation, 2020). However the region sees some large disparities in deprivation levels between its districts, with Ipswich having a disproportionate concentration of deprived neighbourhoods, compared to Babergh, Mid Suffolk and West Suffolk which experience much lower levels of deprivation.
164. There are three aspects of deprivation that are particularly high in Suffolk and they are education, accessibility to services and housing. Specifically regarding education, in Suffolk 10.9% of LSOAs are ranked in the top 10% of most deprived LSOAs nationally when the domain of education, skills and training is considered (MHCLG, 2019). In total, 57% of the total LSOAs in Suffolk falling into the top 50% most deprived LSOAs nationally on the domain of education, skills and training.
165. Specifically Ipswich faces high levels of education, skills and training deprivation, with 23.5% of its LSOAs in the top 10% most deprived LSOAs nationally, and a total of 75.2% of the LSOAs in Ipswich falling into the top 50% most deprived LSOAs nationally. This level of education deprivation is the highest in Suffolk when compared to other districts in the region, and can be attributed to long term educational inequality, decreased spending on education and lower education attainment (Suffolk Community Foundation, 2020).

Appendix B. Policy context

167. It is important that the OSEP is informed by the relevant national and regional policies and priorities. Current policy has a key focus is on maximising the economic, jobs and skills benefits from offshore wind development in the UK and for local communities.

B.1 UK and Industry level

B.1.1 Sector based policy

168. The Offshore Wind Sector Deal (HM Government, 2020a) outlined particular commitments given the industry reached a deal on with the Government that sought to gain further diversity and inclusion, increase the number of apprenticeships and help people transitioning into the industry. The deal set a target for increasing UK content to 60% of value associated with offshore wind farm activity by 2030. It also provided a commitment to increase the representation of women in the offshore wind workforce to at least a third by 2030. The OSEP will help secure higher local benefits and contains outlines commitments rated to securing higher representation of women in the industry.

B.1.2 Green Skills/ Energy Policy

169. Energy White Paper: Powering Our Net Zero Future (HM Government, 2020b) put in place a strategy for a wider energy system that transforms energy and supports a green recovery. The Paper built on the Ten Point Plan for Green Industrial Revolution (HM Government, 2020b), point one of which was advancing Offshore Wind.

170. In the plan, Government set out its aim to quadruple the UKs offshore wind capacity, from 10GW in 2019 to 40GW by 2030 (later increased to 50GW), including 1GW of floating offshore wind, alongside the expansion of other low-cost renewable technologies. They committed to backing new innovations to make the most of offshore wind and invest in bringing jobs and growth to the UKs ports and coastal regions. Following the recent energy crisis brought about by the war in Ukraine, Government have raised the offshore wind capacity target to 50GW and the floating offshore wind target to 5GW in the British Energy Security Strategy (HM Government, 2022b). The British Energy Security Strategy is discussed in further detail below.

171. Build Back Better: Our Plan For Growth (HM Government, 2021b) was created in replacement of the UK Industrial Strategy, building a Britain fit for the future (HM Government, 2017b). Government set out a plan ‘to deliver growth that created high-quality jobs across the UK’ by building on the three core pillars of infrastructure, skills and innovation. The plan also identified three priorities for Government, one of which was supporting the transition to net zero.

172. The Plan for Growth stated that Government will focus on delivering The Ten Point Plan for Green Industrial Revolution (HM Government, 2020b). Policy commitments made in this document were updated within the Energy white paper (HM Government, 2020a), the Net Zero Strategy (HM Government, 2021b) and the British Energy Security Strategy (HM Government, 2022b).

173. Net Zero Review (HM Government, 2021c) set out a comprehensive range of policies to support and capitalise on the UK's transition to net zero by 2050 across the whole economy. The Net Zero Review stated that global action to mitigate climate change was essential to long-term UK prosperity. At the review's time of writing, the majority of global gross domestic product (GDP) was covered by net zero targets. As the world continues to decarbonise, UK action can generate benefits to businesses and households across the country.
174. British Energy Security Strategy (HM Government, 2022b) The British Energy Security Strategy intends to set out how Great Britain (GB) will accelerate homegrown power for greater energy independence. The ambition set in the strategy is for offshore wind to deliver up to 50GW by 2030, including up to 5GW of innovative floating wind. The ambition is that by 2030 over half of British renewable generation capacity will be wind. The strategy notes that:
- 11GW is already being generated from offshore wind with a further 12GW planned at the time of writing of the strategy document;
 - Wind projects tend to have public support through the planning phase, and ultimately benefit the environment because they help reduce the damage to habitats that is caused by climate change;
 - Leadership in the development of wind technology is delivering high skilled, high wage British jobs. The increased ambition of the strategy means the Government expect the sector will grow to support around 90,000 jobs by 2030;
 - Government intends to cut the development process time by over half, by a number of ways including reducing consent time from up to four years to down to one year.

B.1.3 National Policy Statement

175. The draft Overarching National Policy Statement for Energy (EN-1) notes that applicant should assess the creation of jobs and training opportunities. Applicants may wish to provide information on the sustainability of the jobs created, including where they will help to develop the skills needed for the UK's transition to Net Zero. This report sets out ways to the North Falls will help to develop the skills needed for the UK's transition to Net Zero. EN-1 also outlines that the Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted. The OSEP includes outlines these commitments.

B.1.4 Supply Chain-Requirements for Contract for Difference

176. For allocation round 5 the Supply Chain Plan Guidance (BEIS, 2022) was set out by BEIS and aimed to encourage competitive, productive and efficient supply chains for low carbon electricity generation projects, whilst also giving developer certainty to make investments.
177. The previous iteration of Supply Chain Plan (SCP) was divided into four categories, against which a detailed account on how the SCP has been

implemented by category its successes and areas where they were unable to meet the commitments made. Details as to how each section has had an impact on the capacity and competitiveness of the supply chain is also required. The four categories were green growth, innovation, infrastructure and skills.

178. Specifically regarding skills, key areas that need to be committed to are skills gaps and shortages, provision of apprenticeships, scholarships and trainees, health and safety, disability gaps as well as modern slavery.
179. The latest CfD (7) (HM Government, 2024), makes a change from the previous guidance and outlines how developers Sustainable Industry Reward (SIR) applications must contain one SIR proposal to at least one of the three SIR criteria:
 - **Criteria 1:** Investment in shorter supply chains – this means that SIR applicants are taking action to reduce the footprint of their supply chains by investing in ports and supply chain capacity closer to deployment zones. Such investments should be concentrated where they are needed most form a socio-economic perspective²⁰.
 - **Criteria 2:** Investment in more sustainable means of production – A more sustainable means of production means that CfD applicants are using suppliers that have proven credentials in terms of reducing their overall greenhouse gas emissions, evidence by having committed, set, validated and communicated Science Based Targets for the reduction of such emissions.
 - **Criteria 3:** Investment in sorter supply chains that use more sustainable means of production – This criterion combines criteria 1 and 2, and in effect, makes an investment with a greater impact that both shortens supply chains and proposes investment in a cleaner firm whilst doing so.
180. Applications can include up to 10 proposals across all of the SIR criteria, as well as a maximum of three variations of each proposal. In effect this could mean a total of 30 proposals and variants.

B.1.5 UK Government Skills Policy

181. The UK Government has produced a number of particularly relevant skills policy documents including:
 - Skills for Jobs: Lifelong Learning for Opportunity and Growth (HM Government, 2021d) – sets out how the Government will reform further education, so it supports people to get the skills the economy needs throughout their lives, wherever they live in the country. The White paper recognises that we do not have enough technicians, engineers or health and social care professionals to meet vital challenges such as building the green economy. A Skills Value Chain (assessing future skills to meet the

²⁰ Such investments must be in tangible assets or activities. Intangible assets, such as skills programme, R&D programmes etc do not qualify.

needs of the value chain) will be explored to see if it can be used to support Government priorities such as net zero.

- Skills and Post-16 Education Act (DfE, 2022) – The legislation will help economic recovery and growth by making it easier for people to get the skills they need to secure well-paid jobs in industries with skills gaps, such as health and social care, engineering, digital, clean energy and manufacturing. It will also give more people the opportunity to get jobs in their local areas, by requiring employers and colleges to work together to identify the skills needed within communities.
- Levelling up the United Kingdom (UK) White paper (HM Government, 2022b) – The Levelling Up White Paper set out how the UK Government intends to spread opportunity more equally across the UK. This includes a commitment to £26bn of public capital investment for the green industrial revolution and the UK transition to Net Zero. Included 12 levelling up missions, is a skills mission, which outlines ambitions to increase the number of qualification-focused 19+ Further Education and Skills training achievements (including apprenticeships) by 200,000 annually by 2030.
- LSIP (DfE, 2022c) – This paper provides statutory guidance for the development of LSIP (LSIPs), which are part of a national suite of reforms launched in the Government’s Skills and Post-16 Education Act that aim to put employers more firmly at the heart of the skills system. The aim of LSIP’s is to facilitate direct and dynamic working arrangements between employers, providers and local stakeholders, as well as helping learners to gain the skills they need to get good jobs and increase their prospects.

B.1.6 Regional/Local Enterprise Partnerships

182. At a regional level the South East and New Anglia LEPs have undertaken significant work to produce regional level economic and skills strategies:

- SELEP Skills Strategy (2018-2023) – SELEP’s skills strategy was launched in 2018-2023 (SELEP, 2018) to set out an employer and growth led approach to skills, informed by a large evidence base. In view of the significant impact that COVID-19 had on the landscape, the strategy vision and priorities were reviewed within the skills report. The updated priorities included: Increased apprenticeships and industry relevant qualifications for all ages, particularly in priority sectors and at higher and degree level; Simplifying the landscape for employers, stakeholders and individuals; Building a diverse and inclusive economy and reduce polarisation; Raising awareness of jobs and growth across SELEP and the area’s size, scale, national and international significance; and Fostering and support the spirit of pride, entrepreneurship innovation and enthusiasm across SELEP to bring about change.
- Economic Recovery and Renewal Strategy (SELEP, 2021) - SELEP is dedicated to playing its part in reducing carbon emissions and working towards a net zero economy for future growth, communities and businesses across the south east. The Economic Recovery and Renewal Strategy highlights the LEPs dedication to clean growth by rebuilding the economy through increasing renewable energy clusters, adapting to

resource efficient ways of operating, and encouraging transport revolution. These activities also deliver against the Tri-LEP South2East Local Energy Strategy (2019) and encourage the growth of low carbon sector jobs, skills and prosperity.

- SELEP's skills site is dedicated to showcasing the work of regional partners and SELEP itself, providing information and resources to help stakeholders across Greater Essex, Kent and Medway and East Sussex (including Apprenticeship information and content, labour market information and digital skills resources), and sharing news and partner perspectives on issues affecting skills.
- Economic Strategy for Norfolk & Suffolk (NALEP, 2022b) The ambition within the Economic Strategy for Norfolk & Suffolk is to transform the area into a globally recognised, technology-driven and inclusive economy which is leading the transition to zero-carbon. They aim to reach net-zero through sustainable food production, clean energy generation and consumption and digital innovation. The strategy aims for 27,000 new job opportunities to be generated by the clean energy sector in Norfolk and Suffolk between 2019 to 2030.
- New Anglia's LEP Energy Sector Skills Plan (NALEP, 2018) – The Energy Sector Skills Plan has been developed with the Energy sector in Norfolk and Suffolk, working alongside the NALEP, the New Anglia Skills Board and supported by SkillsReach. The Skills Plan captures key priorities for the energy sector in: Mobilising industry leadership, developing a higher technical engineering offer, building 'intra industry' and 'inter-sector' workforce transferability, addressing overall energy skills fragility, building inclusive local capacity and securing the future energy workforce, as well as apprenticeships and group training.
- New Anglia's LEP Skills Advisory Panel Report (2022a) – The NALEP Skills Advisory Panel Report emphasises a collaborative approach to ensure new entrants, the current workforce and those facing barriers in gaining employment gain the best opportunities through a dynamic and relevant curriculum offer particularly in the sectors of agri-food, clean energy and ICT digital.
- New Anglia's LEP business plan 2022/23 (2022b) – NALEP's business plan recognises that the national economic context of Covid recovery, the ongoing implications of the UK's exit from the EU, labour and skills shortages and the outcomes of the Government's Levelling Up White Paper set a complex backdrop for business plans in 2022/23. Five Strategic objectives for the 2022/23 calendar year include: businesses support and innovation, labour market and skills, supporting place, nationally significant projects, future role of the LEP.

B.2 County level

183. **North Essex Economic Board Economic Strategy, 2020 to 2040 (North Essex Economic Board, 2019)** – The North Essex Economic Strategy, produced by the North Essex Economic Board (a partnership of the four councils: Braintree, Maldon, Tendring and Uttlesford districts), aims to drive

innovation and technology adoption, develop a skilled and resilient workforce, create a network of distinctive, cohesive communities, and grow a greener, more sustainable economy.

184. **Essex County Council Construction Growth in Essex 2020-2040 (Essex County Council, 2020a)** – The Construction Growth in Essex report defines the challenges that the Essex construction industry is likely to face over the next 20 years and recommends measures that can be taken to maximise the opportunities created in a sustainable manner. The report identifies examples of innovation in education and training in Essex and confirms that “early adoption” should be stimulated to accelerate the use of technology in training, to promote the sector to young people, and to encourage lifelong learning. Particular opportunities that should focus on include: Developing capabilities at level 2 and above in construction occupations; Building legacy and capability in the county beyond the lifetime of the Project; and Offering a long-term focus on transferable skills, fabrication and assembly, manufacturing and engineering supply-chains.
185. **Essex Skills plan 2022-23 (Essex County Council, 2022a)** – The Essex Skills Plan provides an employer led partnership approach to local skills delivery. The vision for the plan is to help deliver a flourishing and inclusive economy across Essex by equipping employers, adults and young people with the skills, conditions and aptitudes required for significant and clean growth. Specific opportunities to Essex are highlighted as big projects that can both create jobs and act as a hook to showcase sectors such as green energy, virtual and flexible working to help address shortages, as well as capitalising on green and zero carbon jobs in sectors such as construction. This Skills plan feeds into, and should be seen in conjunction with, the Essex Southend and Thurrock LSIP.
186. **Essex, Southend and Thurrock Local Skills Improvement Plan (Essex Chamber of Commerce, 2023)**- This collaborative report with the DfE provides detail on local economy requirements for skills specifically in Essex (including Southend and Thurrock). The plan is an employer led articulation of local skills priorities, covering LSIP priorities and strategic context, how to take the identified LSIP priorities forward, as well as a roadmap for change. The identified priorities are:
- Skills priorities – Soft skills and behaviours, basic maths English and ESOL, digital skills and Digitech, green skills and leadership and management skills.
 - Skills system priorities – skills planning system for Essex, system access and flexibility, information, careers advice and guidance, tutor shortages and capacity of providers to respond, inclusive employment and barriers to engagement.
 - Essex sector and technical skills – Advanced manufacturing, engineering and aviation, agritech and food tech, community and voluntary, construction and the built environment, creative and cultural, digitech, education, health, social care and med tech and professional services transport and logistics.

187. **Suffolk and Norfolk Local Skills Improvement Plan (Norfolk and Suffolk Chambers of Commerce, 2023)** – This LSIP aims to provide a mechanisms to bridge the skills gaps and shortages in the region by providing access to high quality training, education and employment opportunities for the local workforce. This plan emphasises the importance of both technical and softer/ impact skills in shaping the region’s economic growth, competitiveness and residents higher earning potential, as well as providing a platform for the local further education and higher education providers to convene and shape their engagement and provision with employers to ensure that local skills needs are addressed. Four key priorities are outlined: enhancing educational outcomes, developing technical skills, skills for employment and providing a ‘roadmap for change’.
188. Essex County Council Green Skills Infrastructure Review (2022b) – the Essex Green Skills Infrastructure review recommends 4 key things: the creation of The Essex Net Zero Centre of Excellence, raising awareness amongst stakeholders, strong strategic leadership and collaboration and partnership to promote greens skills across the region.

B.3 Local Authority Level

189. A new skills programme is being launched in Tendring to empower residents and boost employment in Tendring. Tendring Future Skills will be run by the University of Essex Outreach team and EEEGR. The two-year programme will help Tendring residents gain the skills to seize new employment opportunities for projects such as North Falls. The programme will include:
- building knowledge on industry practical work-readiness support;
 - careers advice;
 - mentoring;
 - resource packs; and
 - support for applications and interviews.

B.4 Other relevant policy recommendations / research papers

190. **2024 Offshore Wind Industrial Growth Plan (The Crown Estate, Crown Estate Scotland, OWIC and Renewable UK, 2024)** - The Industrial Growth Plan sets out a vision for the future of the UK’s offshore wind supply chain. One of the particularly relevant areas of the plan is skills development. The plan notes challenges the UK offshore wind sector faces, one of which is skills shortages. The plan also notes that the implementation of the Offshore Wind People and Skills Plan is an important part of building the sector’s workforce.
191. **Building the Net Zero Energy Workforce (National Grid, 2020)** – This paper highlights four strategic challenges which the UK must overcome if it is to build the necessary net zero energy workforce.
192. 1) **The Loss of Existing Talent** – The major finding from this report is the prediction of a retirement crunch, where one in five people who are currently working in the energy sector are set to retire by 2030, when the baby boomer generation reach pensionable age. If left unaddressed, this will mean people

will be leaving the sector right when they are needed the most, and a loss of expertise and experience that could be shared with future employees.

193. 2) **Competition for talent** – The sector must compete for and attract the best STEM qualified talent. However, competition for these candidates is fierce and every year the energy sector loses out to other industries such as finance and technology.
194. 3) **The STEM pipeline challenge** – Although more young people are choosing to study STEM subjects, building a Net Zero Energy Workforce will require a significant increase
195. 4) **Lack of Diversity in the sector** – The underrepresentation of women, who currently only account for 12% of the engineering workforce, means the energy sector is missing out on a gender balanced workforce. The problem starts after GCSE, despite girls' STEM exam results marginally outperforming boys' at this stage, and intensifies every year thereafter, with 22% of physics A Level students being women, and then only 8% of STEM apprentices being women and 15% of engineering and technology undergraduates being women.
196. **Green Jobs²¹ Barometer Report (PWC, 2022a)** – A research document created to measure and track the impact on jobs, of decarbonisation efforts and net zero activity, as well as the adoption of green practices in the workplace. The Barometer provides five key Pillars which aim to capture a different aspect of the impact of a transition to a green economy on the UK labour market and is broken down into regions and sectors. The five pillars are: Green job creation, wider benefits of green jobs, sunset jobs to disappear, carbon intensity of jobs and green workplaces. Findings specific to green skills include:
- 2.2% of all jobs advertised in 2022 were green jobs, equating to 336,805. The East of England specifically accounted for 25,998 of these green job advertisements, which was the equivalent to 1.96% of all job advertisements in the region.
 - In the East of England 24.5% of all job advertisements in 2022 were in sectors closely aligned to the energy transition, which is lower than the national average of 26.4%.
 - The green skills in highest demand in 2022 were largely sector agnostic – such as sustainability, environmental and carbon- however, renewable energy, infrastructure and nuclear all ranked in the top ten skills in PWC analysis of job vacancy data.
 - The challenge of finding enough workers for green energy sectors and upskilling for the rising demand of green skills in current roles is greater than that of job losses.

²¹ PwC define Green Jobs as being roles that seek to either produce / provide environmentally friendly products and services or adapt work processes to become more environmentally friendly or use fewer natural resources.

- There is a significant skills gap in the UK, and government intervention is needed to address the insufficient supply of skills needs to meet UK decarbonisation targets.
197. An estimated 90% of the oil and gas workforce would have the transferable skills needed for greening roles. However, this reskilling of the current workforce needs to accelerate now, in order to fill the green skills gaps and meet net zero by 2050.
198. The Energy Transition and Jobs (PWC, 2022b) – This paper investigates how the decarbonisation of the UK economy will affect the energy labour market, with a focus on the evolution and transition of sunset jobs into opportunities in renewables and nuclear power. The overriding message from the report is that increases in renewables, nuclear and low carbon energy generation will be constrained by a significant shortage of skilled labour which cannot be addressed from the existing UK energy sector workforce alone, despite its high skills transferability. The implication of this finding is that a successful transition to net zero is dependent upon government and industry action to facilitate widespread reskilling of the current and future workforces.
199. The Chief Medical Officer’s (CMO) Annual Report 2021: Health in Coastal Communities (CMO, 2021) explores how coastal communities have the worst health outcomes in England and that the drivers of these health challenges show more commonality between coastal communities than inland neighbours. The report also highlights how the concentration of poor health and wellbeing in coastal communities provides a clear and geographically defined target for national strategy and policy, as well as how other factors such as the economy, employment and education are all closely intertwined with the health of coastal regions. Some key findings from the report are:
- Unemployment and part time employment are higher in coastal towns, along with a greater dependency on public sector employment
 - The drivers of unemployment are varied, but some common themes are: a historical dependency on traditional industries which once allowed these communities to thrive but no longer exist, poor transport connectivity, lack of diversification of the local economy, unequal impacts of the Covid-19 pandemic, poor education attainment
 - The CMO specifically highlights Clacton-on-Sea in their report, where the proportion of children achieving a good level of development is statistically significantly worse than wider Tendring, Essex and national comparators, with only 53% achieving a good level of development at age 5 compared with 58% in Tendring and 62% in Essex.



NORTH FALLS

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