



Wylfa Newydd Project

8.3 Jobs and Skills Strategy

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Executive Summary

Horizon is committed to working with partners in Anglesey and across North Wales to deliver a skills programme that both supports the efficient construction and operation of the Power Station and delivers a legacy for the local economy of a higher skilled, higher productivity workforce.

The construction of the Wylfa Newydd Project will be one of the largest and most complex construction projects in the UK and will require a highly skilled workforce. Including Enabling Works, the construction period will be around ten years and so will offer opportunities for sustained employment for local residents.

Horizon believes it is particularly important to deliver sustainable careers for local residents beyond the construction phase of the Wylfa Newydd Project. In some cases, this will mean employees transitioning from construction into working at Wylfa in the operational phase. In others, it will mean long-term careers within the construction industry.

Horizon also understands that there are concerns that the project will recruit from other sectors, leaving behind vacancies that are hard to fill. This first version of the Jobs and Skills Strategy (the Strategy) sets out emerging thoughts on how Horizon can help to deal with these vacancies as they arise through a broad-based Wylfa Newydd Employment and Skills Service (WNESS).

This version of the Strategy has been prepared by Horizon but draws on feedback provided through the three main stages of consultation. There is also ongoing consultation through the Statement of Common Ground process and a series of stakeholder meetings.

The Strategy will be delivered in partnership with a range of stakeholders across the area, including the local authorities, Welsh Government and education and training partners.

This Strategy will be backed by a flexible Skills Fund that can be used to deliver any aspect of the Strategy, including the WNESS, work with schools, the operational workforce development strategy, backfilling of vacancies at local employers, new training capacity, outreach and direct funding of training courses. The allocation of the Skills Fund will need to be flexible so that it can respond to needs and opportunities as they arise and maximise the impact of the Strategy by building on existing activity and funding streams.

Horizon's approach to the Jobs and Skills Strategy is underpinned by its Vision, Mission and Values. These are designed to support and reflect the company's long-term objectives and the promise to employees and stakeholders about how Horizon will work to meet those objectives.

Horizon's values are:

- Safety
- Courage
- Integrity
- Collaboration
- Inspiration

In line with these, Horizon is committed to working collaboratively with local partners, to agree and deliver the Jobs and Skills Strategy.

Horizon's approach is to plan as effectively as possible for the skills it thinks it will need. It will be a demand-led approach that focuses on employment opportunities and draws on up to date labour market forecasting.

Horizon proposes that the focus of the Jobs and Skills Strategy should be on occupations that meet the following criteria:

- They are in high demand at Wylfa;
- There are existing skills shortages in the construction industry; and,
- There is a reasonable prospect of workers being trained locally to achieve the necessary standards.

This Jobs and Skills Strategy will need to evolve over time as more information about skills needs become available and as those needs themselves change through the course of the project. This document sets out the key components of the approach, including:

- The Strategic Context
- Labour Market Assessment
- Delivering Construction Skills
- The Wylfa Newydd Employment and Skills Service
- The Operational Workforce
- Horizon's approach to Schools and Education
- Implementation.

Horizon will continue to develop the Jobs and Skills Strategy through the Statement of Common Ground process and working with local partners both in advance of the DCO examination process and beyond it.

1 Introduction

- 1.1.1 Horizon is committed to working with partners in Anglesey and across north Wales to deliver a skills programme that both supports the efficient construction and operation of the Power Station and delivers a legacy for the local economy of a higher skilled, higher productivity workforce.
- 1.1.2 The construction of the Wylfa Newydd Project will be one of the largest and most complex construction projects in the UK and will require a highly skilled workforce. Including Enabling Works, the construction period will be around ten years and so will offer opportunities for sustained employment for local residents. People will be able to enter the industry, develop their careers and reach their full potential. Positive employment benefits are specified as a material consideration for DCOs in the National Policy Statement for Nuclear Power Generation (EN-6) [RD1].
- 1.1.3 Horizon believes it is particularly important to deliver sustainable careers for local residents, equipping them with skills that will be relevant and useful over the longer-term, beyond the construction phase of the Wylfa Newydd Project. In some cases, this will mean employees transitioning from construction into working at Wylfa in the operational phase. In others, it will mean long-term careers within the construction industry, whether on other nuclear projects or in more conventional construction.
- 1.1.4 Horizon also understands that there are concerns that the project will recruit from other sectors, leaving behind vacancies that are hard to fill. This first version of the Jobs and Skills Strategy (the Strategy) sets out emerging thoughts on how Horizon can help to deal with these vacancies as they arise through a broad-based Wylfa Newydd Employment and Skills Service (WNESS).
- 1.1.5 This first version of the Strategy has been prepared by Horizon but draws on feedback provided through the three main stages of consultation, the most recent of which (Stage Three Pre-Application Consultation) took place in May and June 2017. There is also ongoing consultation through the Statement of Common Ground process and a series of stakeholder meetings.
- 1.1.6 Horizon envisages that the Strategy will be delivered in partnership with a range of stakeholders across the area, including the local authorities, Welsh Government and education and training partners.
- 1.1.7 It will be backed by a flexible Skills Fund that can be used to deliver any aspect of the Strategy, including the WNESS, work with schools, the operational workforce development strategy, backfilling of vacancies at local employers, new training capacity, outreach and direct funding of training courses.
- 1.1.8 The allocation of the Skills Fund will need to be flexible so that it can respond to needs and opportunities as they arise during the project. The Skills Fund should maximise the impact of the Strategy by building on existing activity and funding streams, including mainstream government skills funding. Horizon's specific contributions will be secured through obligations.
- 1.1.9 Horizon's approach to the Jobs and Skills Strategy is underpinned by its Vision, Mission and Values. These are designed to support and reflect the

company's long-term objectives and the promise to employees and stakeholders about how Horizon will work to meet those objectives. Key stakeholders include the communities around Wylfa Newydd and Horizon's partners and supply chain.

1.1.10 Horizon's values are:

- Safety - Safety is our fundamental guiding principle and central to everything we do. We recognise the specific challenges associated with the nuclear environment and the high levels of responsibility that this entails. We will challenge unsafe behaviours. We will prioritise the safety, security and wellbeing of the public, our employees, the environment and our stakeholders.
- Courage - Horizon will display strong, measured leadership and act responsibly to ensure we make effective decisions, taking full account of all relevant factors. We will then implement them diligently and with determination.
- Integrity - We will deliver what we promise and insist on an honest approach to everything we do, always aiming to do the right thing in a principled, reliable and trustworthy manner. Our people will be encouraged to participate in a culture of challenge, listening and mutual respect.
- Collaboration - We will work in a collaborative spirit all the time, building a sense of commitment to one another's success and valuing the contribution of people both inside and outside the organisation. We will work together with our stakeholders, partners and suppliers through effective dialogue and consultation to deliver success for the organisation.
- Inspiration - We will encourage everyone to achieve their full potential and seek to inspire future generations. We will act as a catalyst for change to enable the delivery of our vision. We will recognise and nurture people's talents and their hopes for the future.

1.1.11 In line with these, Horizon is committed to working collaboratively with local partners, to agree and deliver the Jobs and Skills Strategy and provide people in Anglesey and North Wales with opportunities for jobs and training on the Wylfa Newydd Project.

1.1.12 Horizon's approach is to plan as effectively as possible for the skills it thinks it will need. It will be a demand-led approach that focuses on employment opportunities and draws on up to date labour market forecasting. This will maximise the opportunities for people in Anglesey and across North Wales and ensure that Horizon and its contractors have access to people with the right skills at the right time.

1.1.13 At this stage in the process, the precise labour market requirements of the project are still being worked through. Whilst the scale of the overall workforce

is known, it is not known how many positions will be filled by people already in the industry and how many will need to be filled by new entrants. Without that knowledge, Horizon proposes that the focus of the Jobs and Skills Strategy should be on occupations that meet the following criteria:

- They are in high demand at Wylfa;
- There are existing skills shortages in the construction industry; and,
- There is a reasonable prospect of workers being trained locally to achieve the necessary standards

1.1.14 Further detail on the occupations that meet these criteria is set out in Sections 3 and 4 of this document. Horizon believes these should be the initial focus of any skills interventions with a wider range of activity being developed over time that may focus on other areas, as more information becomes available.

1.1.15 A demand-led approach means that this Jobs and Skills Strategy will need to evolve over time as more information about skills needs become available and as these needs change through the course of the project. This document sets out the key components of the approach, including:

- The Strategic Context – the existing approach to skills across the region and the broad mix of workers the project will need
- Labour Market Assessment – the current state of the construction labour market
- Delivering Construction Skills – how Horizon will work with partners to ensure training provision and access to jobs
- The Wylfa Newydd Employment and Skills Service – a brokerage service to match suitably skilled residents with vacancies at Wylfa and in the wider economy
- The Operational Workforce – how Horizon is preparing for the needs of the operational power station.

1.2 The Wylfa Newydd Project

1.2.1 Horizon is proposing to construct and operate the Wylfa Newydd Project, which comprises the Wylfa Newydd DCO Project, the Licensable Marine Activities and the Enabling Works. Each of these elements is described further below. The Wylfa Newydd DCO Project will be consented under a DCO and the Licensable Marine Activities will be consented under a Marine Licence. There is some overlap between the two; the Marine Works (see below) will be consented under both the DCO and the Marine Licence.

Wylfa Newydd DCO Project

1.2.2 The Wylfa Newydd DCO Project comprises those parts of the Wylfa Newydd Project which are to be consented by a DCO, namely:

The Nationally Significant Infrastructure Project (NSIP)

- Power Station: the proposed new nuclear power station at Wylfa, including two UK Advanced Boiling Water Reactors, the Cooling Water System, supporting facilities, buildings, plant and structures, radioactive waste and spent fuel storage buildings and the Grid Connection;
- other on-site development: including landscape works and planting, drainage, surface water management systems, public access works including temporary and permanent closures and diversions of public rights of way, new Power Station Access Road and internal site roads, car parking, construction works and activities including construction compounds and temporary parking areas, laydown areas, working areas and temporary works and structures, temporary construction viewing area, diversion of utilities, perimeter and construction fencing, and electricity connections;
- Marine Works comprising:
 - Permanent Marine Works: the Cooling Water System, the Marine Off-loading Facility, breakwater structures, shore protection works, surface water drainage outfalls, waste water effluent outfall (and associated drainage of surface water and waste water effluent to the sea), fish recovery and return system, fish deterrent system, navigation aids and Dredging;
 - Temporary Marine Works: temporary cofferdams, a temporary access ramp, temporary navigation aids, temporary outfalls and a temporary barge berth;
- Off-site Power Station Facilities: comprising the Alternative Emergency Control Centre (AECC), Environmental Survey Laboratory (ESL) and a Mobile Emergency Equipment Garage (MEEG);

Associated Development

- the Site Campus within the Wylfa Newydd Development Area;
- temporary Park and Ride facility at Dalar Hir for construction workers (Park and Ride);
- temporary Logistics Centre at Parc Cybi (Logistics Centre);
- the A5025 Off-line Highway Improvements;
- Wetland habitat creation and enhancement works as compensation for any potential impacts on the Tre'r Gof Site of Special Scientific Interest (SSSI) at the following sites:
 - Tŷ Du;
 - Cors Gwawr;
 - Cae Canol-dydd

1.2.3 The following terms are used when describing the geographical areas related to the Wylfa Newydd DCO Project and the Licensable Marine Activities:

- Power Station Site – the indicative areas of land and sea within which the majority of the permanent Power Station, Marine Works and other on-site development would be situated; and
- Wylfa Newydd Development Area – the indicative areas of land and sea including the Power Station Site and the surrounding areas that would be used for the construction and operation of the Power Station, the Marine Works, the Site Campus and other on-site development (WNDA Development).

Licensable Marine Activities

- 1.2.4 The Licensable Marine Activities comprise the Marine Works and the disposal of material from Dredging at the Disposal Site.

Enabling Works

- 1.2.5 The Enabling Works comprise the Site Preparation and Clearance Proposals (SPC Proposals) and the A5025 On-line Highway Improvements.
- 1.2.6 Horizon has submitted applications for planning permission for the Enabling Works under the Town and Country Planning Act 1990 to the Isle of Anglesey County Council (IACC).
- 1.2.7 In order to maintain flexibility in the consenting process for the Wylfa Newydd DCO Project, the SPC Proposals have also been included in the DCO application. The A5025 On-line Highway Improvements are not part of the DCO application.

2 Strategic Context

2.1 Introduction

- 2.1.1 The Jobs and Skills Strategy needs to be embedded in the wider approach to skills and training across Anglesey and North Wales.
- 2.1.2 For the construction phase it needs to focus on training people for work in occupations where there is likely to be significant demand from the project and, in particular, in occupations where there are existing skills shortages in the construction industry. This will require a wide-ranging partnership involving Horizon and its supply chain and a range of partners across the public and private sectors.
- 2.1.3 For the operational phase, Horizon will take the lead, but will work with education and training providers to ensure that local people have the best possible chance of accessing the well-paid, permanent jobs that the project will deliver.
- 2.1.4 This section sets out the strategic context for this activity including the policy aims of the public sector, Horizon's approach to partnership, and the forecast workforce demands during both the construction and operational phases.

2.2 Local Policy

- 2.2.1 Horizon has taken an active role in the North Wales Economic Ambition Board, as a member and by chairing the Welsh Government appointed North Wales Regional Skills Partnership. Horizon sits on its skills partnership and sees wider engagement as being crucial to delivering the shared vision for a more prosperous local and regional economy.
- 2.2.2 Through a process of design and consultation, the Jobs and Skills Strategy is also, as far as possible, set in the context of key economic strategies for the Counties and Region, which include the:
 - Anglesey and Gwynedd Joint Local Development Plan (2011-2026) [RD2];
 - Anglesey Economic Regeneration Strategy (2004-2015) [RD3];
 - Isle of Anglesey Single Integrated Plan (2013-2025) [RD4];
 - Gwynedd Council Strategic Plan (2013-2017) [RD5];
 - Gwynedd Community Strategy [RD6];
 - Conwy's Economic Growth Strategy (2017-2027) [RD7]; and,
 - North Wales Economic Ambition Board – Regional Skills & Employment Plan (annual) [RD8].
- 2.2.3 Copies of the above documents are available online via the websites of the Isle of Anglesey County Council (IACC), Gwynedd Council, Conwy County Borough Council and the North Wales Economic Ambition Board.
- 2.2.4 The strategies are bound by the common themes of:
 - Raising levels of educational and skills attainment

- Ensuring opportunities exist for young people to reduce out migration
 - Growing the size and capability of the region's workforce
 - Improving access and addressing barriers to work
 - Encouraging individuals to achieve their potential through lifelong learning
 - Creating a better match between skills availability and the needs of the economy
 - Capitalising on the catalytic employment effects of major infrastructure investment from the Wylfa Newydd Project.
- 2.2.5 In line with the local strategic aspirations and specific policy aims, Horizon is committed to ensuring residents of Anglesey and North Wales are employed at Wylfa Newydd Power Station.
- 2.2.6 There is a particular focus in policy on construction and nuclear skills, with many of the policies anticipating the delivery of the Wylfa Newydd Project.
- 2.2.7 The Regional Skills and Employment Plan specifically endorses elements of this Strategy, including the need to work in partnership to deliver positive outcomes and the brokerage approach of the WNESS. The Plan also identifies construction, engineering and food and hospitality as key sectors and sets out policies and measures to address the challenges and opportunities the region faces. This Strategy has been designed to be consistent with the approach set out in the Plan (see paragraph 2.3.5 and 4.3.3).

2.3 Context

- 2.3.1 The Jobs and Skills Strategy is driven by a need to impact positively on employment, and skill interventions will be put in place to maximise opportunities for local people. Thought has also been given to ensuring that the Wylfa Newydd Project does not negatively impact on the available workforce for other employers in Anglesey and the surrounding counties. However, to make the most of the opportunities presented by the volumes of workers and skills required at the Wylfa Newydd Project, there are challenges that have to be overcome.
- 2.3.2 For example, a competent joiner working on a conventional project in Anglesey is unlikely to have the full skills set or competencies required to substitute automatically into the workforce as a 'formwork joiner' on a Nuclear New Build project. People with very little prior experience and existing workers with generic construction or operation related skills, are only likely to meet the specific demands generated by the Wylfa Newydd Project if they receive focussed training and development in specific skills sets. New entrants, in particular, are only likely to be eligible for work on the site if they are 'job ready' and can show that they have the competencies and accreditation required to work for contractors at the site.
- 2.3.3 The Wylfa Newydd Project poses both an opportunity and challenge to Anglesey and the wider regional economy. To leverage the opportunity, Horizon is committed to investing in a skills infrastructure that provides people

from Anglesey and the surrounding counties with the skills they require to be deemed competent to work on the project - and also in areas where future displacement is likely to occur.

- 2.3.4 Horizon is committed to putting training and skills interventions in place that meet both the skills demand of the project and sectors of future high skills demand in the wider economy. This will involve working with key partners such as the Welsh Government, the North Wales Regional Skills Partnership, local (and other) educational institutions. The model for training and skills is 'demand led' in that the needs of the project set the curriculum and that requirements of contractors are responded to, realising the correct type of training. A challenge for the community - and therefore for the project - is to "target" skills interventions in trades and occupations that will also offer sustainable employment in Anglesey throughout an individual's career.
- 2.3.5 To deliver the Jobs and Skills Strategy, effective partnerships with an extensive set of key stakeholders are essential. These will involve, for example, the local authorities and Welsh Government; the Regional Skills Partnership, Jobcentre Plus and the Department for Work and Pensions; Further Education colleges (including Grŵp Llandrillo Menai and Coleg Cambria); Bangor University; Glyndŵr University; and a range of skills funding organisations and sector stakeholders. These organisations will play a range of roles, including overseeing the development and delivery and revision of the Jobs and Skills Strategy.

2.4 The Construction Workforce Profile

- 2.4.1 The information set out in the Socio-economic chapter of the Environmental Statement (Volume C1) (Application Reference Number: 6.3.1) provides the sources, assumptions and detail which has been used to inform this document.
- 2.4.2 Horizon has undertaken a detailed review of the workforce that will be required to construct and operate Wylfa Newydd Power Station. Evidence is based on data from Horizon and Menter Newydd and draws on information from previous power station projects and information from contractors.
- 2.4.3 Figure 2-1 shows how the workforce builds up over time. For illustrative purposes only, it assumes a DCO consent allows the main construction phase to begin in Q1 of Year 1. It then builds up to a peak of 9,000 in Q4 of Year 7.
- 2.4.4 The profile is split into six broad categories of worker – Site Services, Security & Clerical Staff; Supervisory/Managerial; Civil Engineering Operatives; Mechanical & Electrical Operatives; Operational; and, Off-site Services, Security & Clerical Staff.
- 2.4.5 Horizon wants to maximise the number of these workers that are recruited from Anglesey and across North Wales. The Project has defined a Daily Construction Commuting Zone (DCCZ) within which it expects to recruit a large part of its workforce and where it will focus its efforts. The DCCZ is shown in Figure 2-2.

Figure 2-1 Construction Workforce Profile

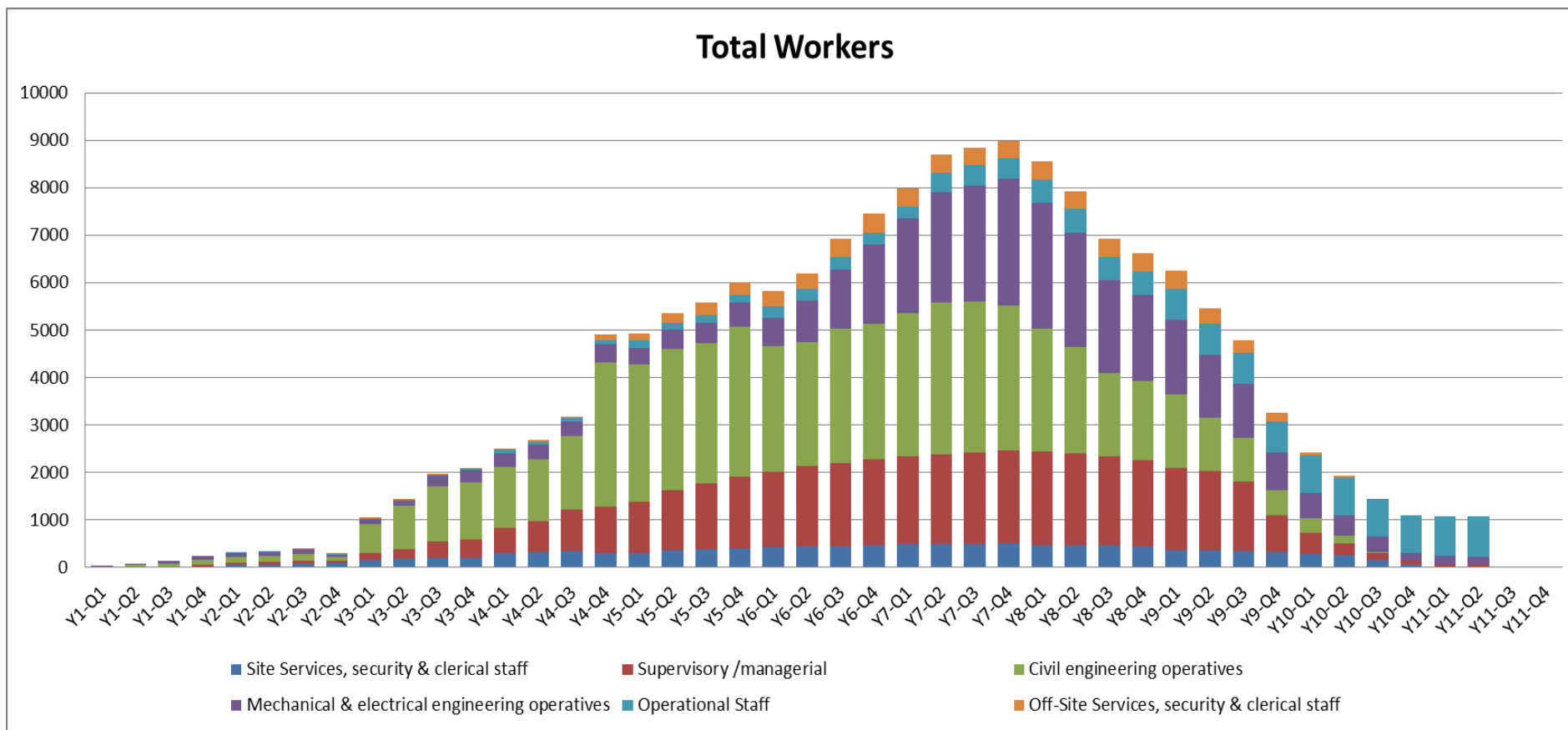
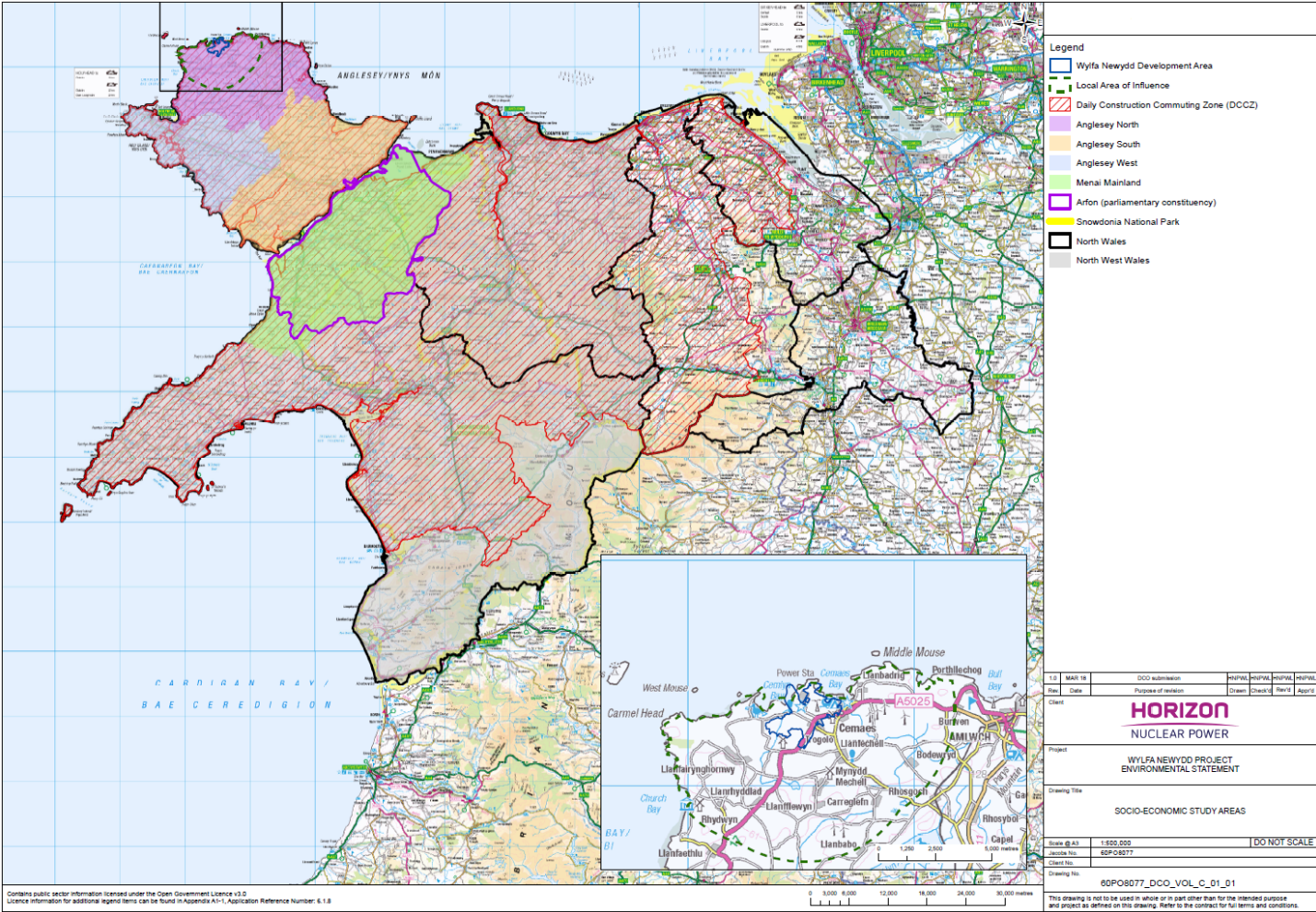


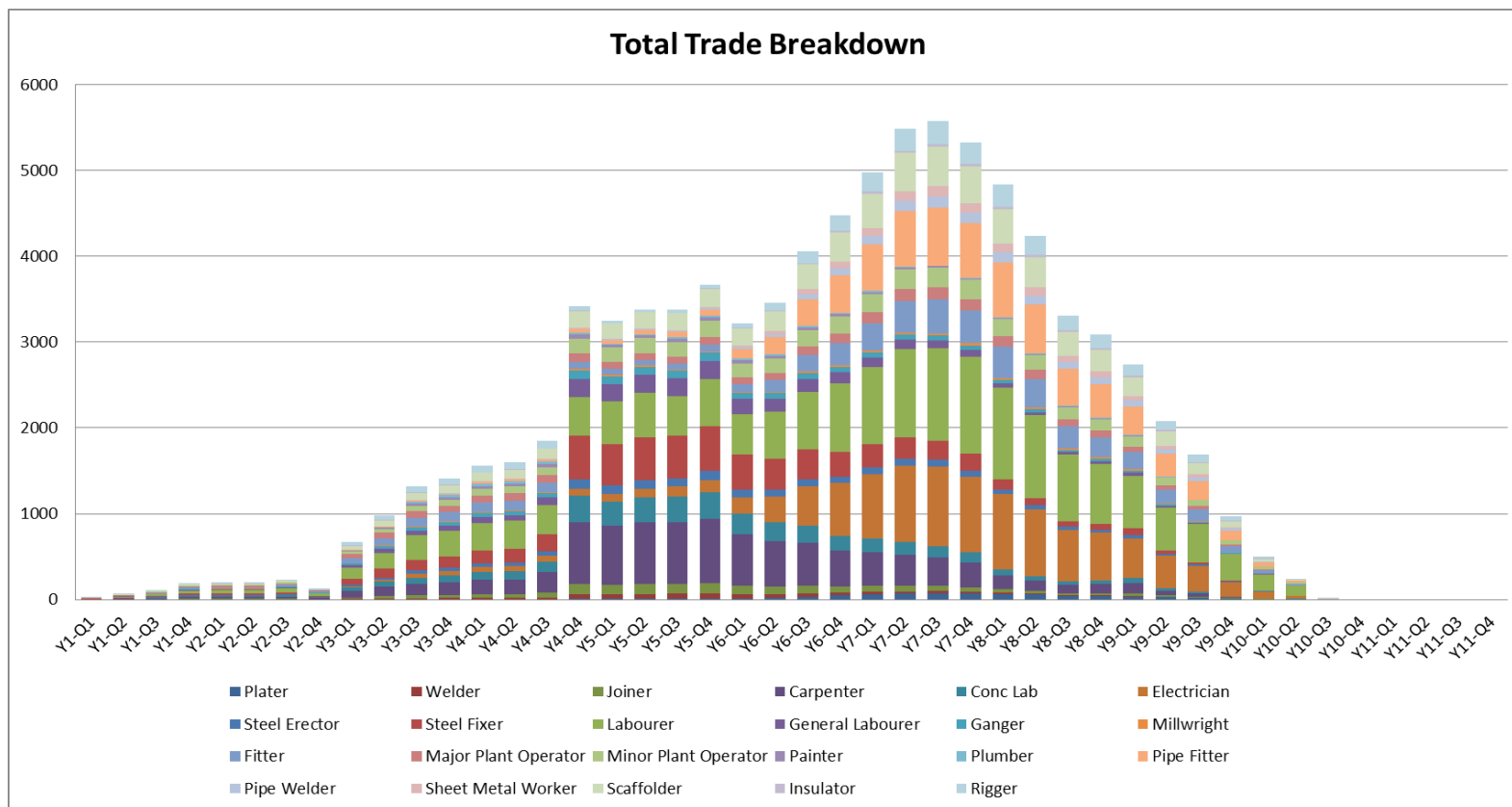
Figure 2-2 Daily Construction Commuting Zone



- 2.4.6 This Jobs and Skills Strategy takes as its starting point the data presented in Section 2.4 (“Construction phase local labour participation”) of Appendix C1.2: Technical Appendix - Socioeconomics of the Environmental Statement (Application Reference Number: 6.3.9). This data identifies that there are just under 62,000 people across the DCCZ in “nuclear relevant” occupations. This is significantly lower than the equivalent area around Hinkley Point C and reflects the different level of urbanisation in the respective catchments. The Hinkley Point C catchment, for example, includes the City of Bristol and medium-sized towns like Taunton and Bridgwater and, as such, there is a greater density of population and workers to draw upon. The location of Wylfa Newydd Power Station does not have a comparable urban structure of the same scale within the DCCZ.
- 2.4.7 This necessarily limits the share of the workforce that is likely to be home-based and it is highly unlikely that the local economy could sustain local labour rates assumed at Hinkley Point C based on relative magnitude of the working age population, population density and construction workforce. The comparative data review would tend to suggest a local labour rate considerably below the 34% benchmark used at Hinkley Point C.
- 2.4.8 The Environmental Statement therefore uses a home-based workforce of 2,000 as its assessment benchmark. This represents around 3% of the workforce in the DCCZ with nuclear relevant skills.
- 2.4.9 However, this is an assessment benchmark and not a target. Horizon wants to maximise the number of these workers that are recruited from Anglesey and across North Wales. Therefore, within the DCCZ, recruitment and training will be focused on Anglesey and the neighbouring Districts. Relatively few workers are expected to travel every day from the edges of the DCCZ.
- 2.4.10 Data on the supply and structure of the labour market within the DCCZ suggests that there is a reasonable level of fit between the labour market and demand for construction occupations at the Wylfa Newydd Project. However, skills interventions are required throughout the life of the project to sustain a steady flow of relevantly qualified and “competent” people for the duration of construction phase. This means ensuring workers can demonstrate they have the relevant specific as well as generic skill sets.
- 2.4.11 To control the quality of the workforce and ensure that all workers, regardless of occupation, are competent and have the safest working practices, the construction and engineering sectors in the UK now operate comprehensive ‘card schemes’. The skills interventions put in place by the Jobs and Skills Strategy will play a key role in enabling construction workers in Anglesey to gain additional skills and the relevant cards to ensure that they meet the competency requirements of contractors at Wylfa Newydd Power Station.
- 2.4.12 As the construction programme progresses from the enabling works and preliminary phases to the main build and future operation, groups of workers will leave the project to be replaced by others with different occupations and skills sets. It is expected that this workforce ‘churn’ will result in up to 30,000 – 40,000 individual opportunities at the site prior to commissioning, presenting significant opportunity for people in North Wales.

- 2.4.13 To forecast the specific workforce requirements and volumes for the Wylfa Newydd DCO Project, Horizon has developed a “bottom-up” model to assess the potential labour flows and skills breakdown for the construction workforce. The methodology uses information provided by Menter Newydd and by Horizon’s construction advisers and draws on previous project details and workforce models.
- 2.4.14 Figure 2-3 illustrates the high level outputs from the model and provides an indication of the employment profiles across various occupation groups and the workforce as a whole. It has been used in this Jobs and Skills Strategy to provide an indication of the proportions and volumes of workers, occupations and skills sets that will be required on the programme. It does not represent an estimate of how many of these will be vacant – many will be filled by existing employees of contractors in the supply chain. However, it does provide an indication of which skills will be most in demand. Section 3 sets out more detail on how these trades correlate with existing skills shortages in the construction sector.

Figure 2-3 Breakdown of Trades¹



¹ The total trade breakdown chart presents data associated with Menter Newydd and Owner's Scope trades and does not include management, operations or support staff resources.

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2.5 Operational Workforce

- 2.5.1 The operational workforce at Wylfa Newydd Power Station will consist broadly of people in the following areas:
- 25% Operations;
 - 25% Maintenance;
 - 25% Engineering;
 - 10% Technical Support; and
 - 15% Business Support and other trades.
- 2.5.2 In addition, up to 1,000 extra workers may be required on a temporary basis for scheduled maintenance and re-fuelling outages. The specialist nature of some outage activities usually requires additional skills to be deployed as a complement to those already held by the operational workforce or regional supply chain. Outage staffing would therefore tend to draw on a combination of regional, UK and international workforces.

2.6 Overview of the Jobs and Skills Strategy

- 2.6.1 The Strategy is designed to maximise all opportunities for home-based people through investment in an integrated and multi-agency approach to construction skills training and jobs.
- 2.6.2 Discussions with stakeholders indicate the need to create an employment pathway for those people who wish to start a career in construction or who are currently unemployed. The Strategy is therefore designed to open a range of employment pathways, including for new entrants to the construction sector from other industries, as well as for those who may be workless. In addition, it provides for the up-skilling of existing trades people in Anglesey and the home-based area.
- 2.6.3 These come together through the Wylfa Newydd Employment and Skills Service, a multi-agency partnership that aims to ensure local people have the necessary skills, experience and qualifications to access work on the project. Further details are set out in the Section 3 of this document.
- 2.6.4 The skills interventions provided for the Wylfa Newydd Project will be flexible and tailored to the needs of the individuals, enabling them to supplement their existing skills sets with specific competences. Such competences, acquired through short courses and qualifications, will enable individuals to gain work with contractors on the Wylfa Newydd Project. To support the construction sector in North Wales as a whole, skills programmes will be designed to accommodate training for other projects planned for the area.
- 2.6.5 Horizon is committed to using this project to have a positive influence on the construction industry regionally and in the UK through employing and recruiting a construction workforce that is diverse and inclusive. The employment and skills activities will be underpinned with a policy of opening up opportunity to groups or people in the community who have traditionally been under-represented within the construction workforce.

- 2.6.6 Horizon will work with its contractors to ensure that those who are in a supervisory or management role, from foremen to senior managers, are suitably trained. This approach will help to ensure that the project is able to operate safely, by promoting a culture of tolerance, understanding and respect.

3 Skills Priorities

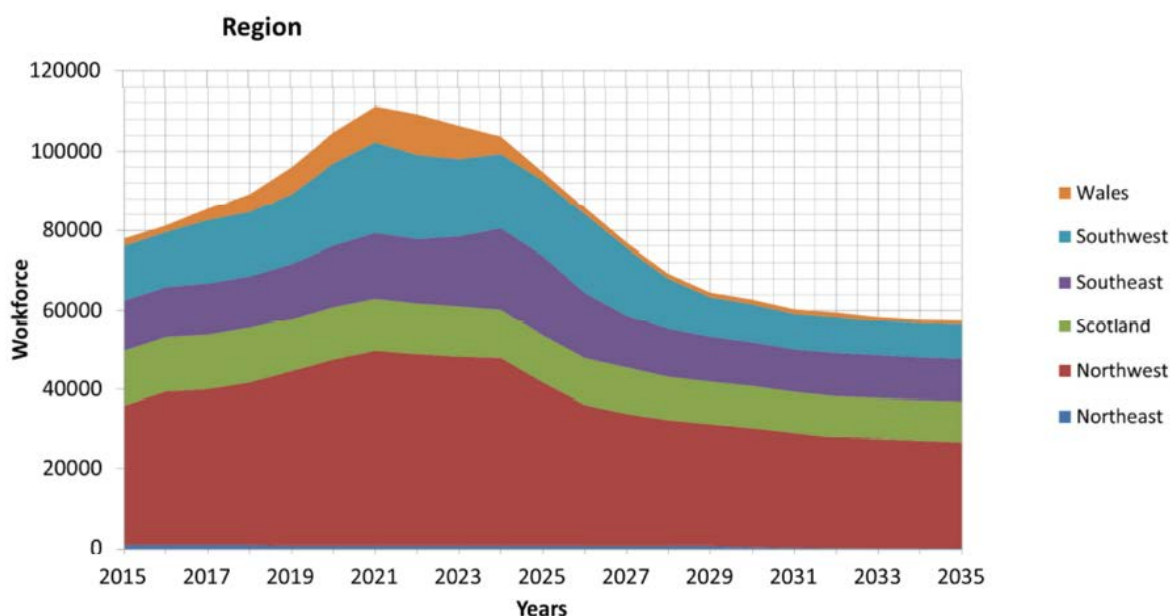
3.1 Introduction

- 3.1.1 This section sets out information on how the skills needs for the Wylfa Newydd Project relate to the wider needs of the nuclear sector and, in particular, the construction of the nuclear new build sites.
- 3.1.2 These forecasts are updated regularly and currently run to 2035 for the nuclear industry as a whole and to 2021 for the construction industry. They are likely to change over time and the Jobs and Skills Strategy will need to change in response.

3.2 Nuclear Skills

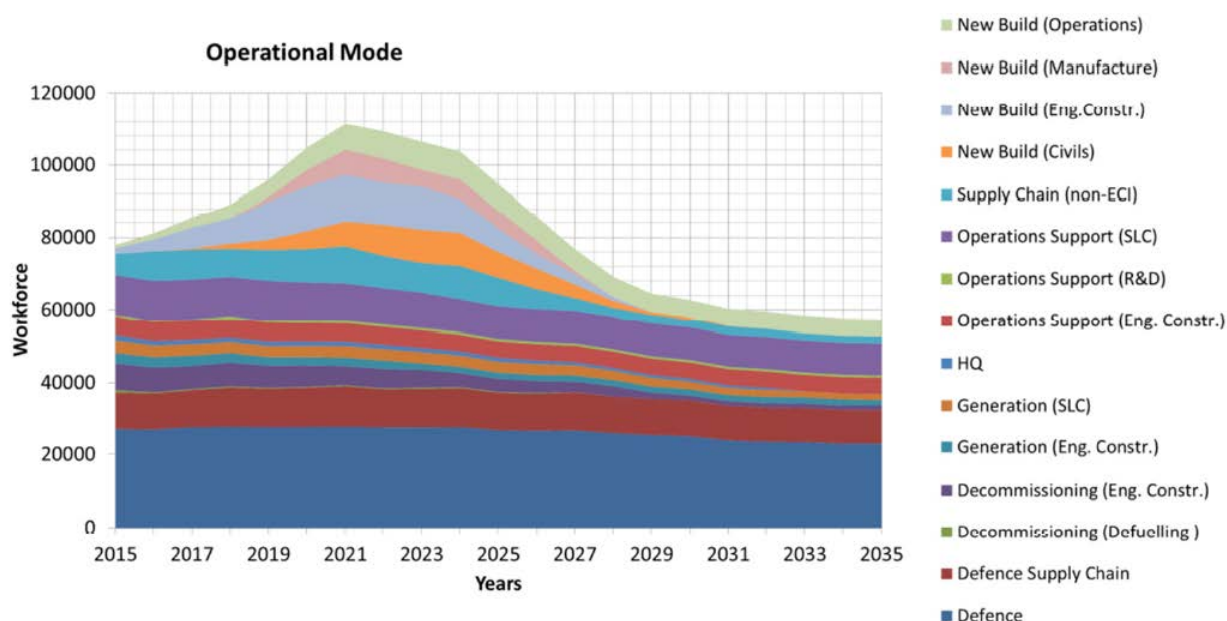
- 3.2.1 The Nuclear Workforce Assessment produced by the Nuclear Energy Skills Alliance (NESA) in 2015 [RD9] provides a national summary of available Labour Market Intelligence for the nuclear industry. Total forecast demand (across UK Nuclear new build) up to 2035, as presented in Figure 3-1 and Figure 3-2, indicates a gradual decrease in labour demand from decommissioning and current generation but, at the same time, there will be an increase in demand for new-build labour. Total nuclear workforce labour demand will peak in 2021.

Figure 3-1 Forecast Total UK Nuclear Workforce Demand by Region²



² Include defence and supply chain

Figure 3-2 Forecast Total UK Nuclear Workforce Demand by Operational Mode³



- 3.2.2 Five nuclear new build sites are considered within the NESA workforce projections: Wylfa Newydd, Hinkley Point C, Moorside, Sizewell C and Oldbury. Concurrent construction of the new build sites is predicted to result in an increase in total nuclear Full Time Equivalent (FTE) jobs from 77,900 in 2015 to an overall peak of 111,300 in 2021: an expansion in demand of 5,600 per year. Workers associated with nuclear new build currently form around 4.5% of the total workforce demand, this figure is set to increase to 30% by 2021.
- 3.2.3 Forecasts of the recruitment required to match this demand highlight the scale of nuclear industry's potential skills gap. Forecast annual recruitment rates required to meet the annual demand up to the 2021 peak are presented in Table 3-1. From 2015 to 2021 forecast annual inflow, including replacement and expansion demand, is 9,000 FTEs per annum. Particularly high rates are predicted for Engineering and Trades, reflective of the increase in nuclear new build. The total includes a range of skill levels but a high proportion are construction workers not associated with long term employment in the nuclear industry.

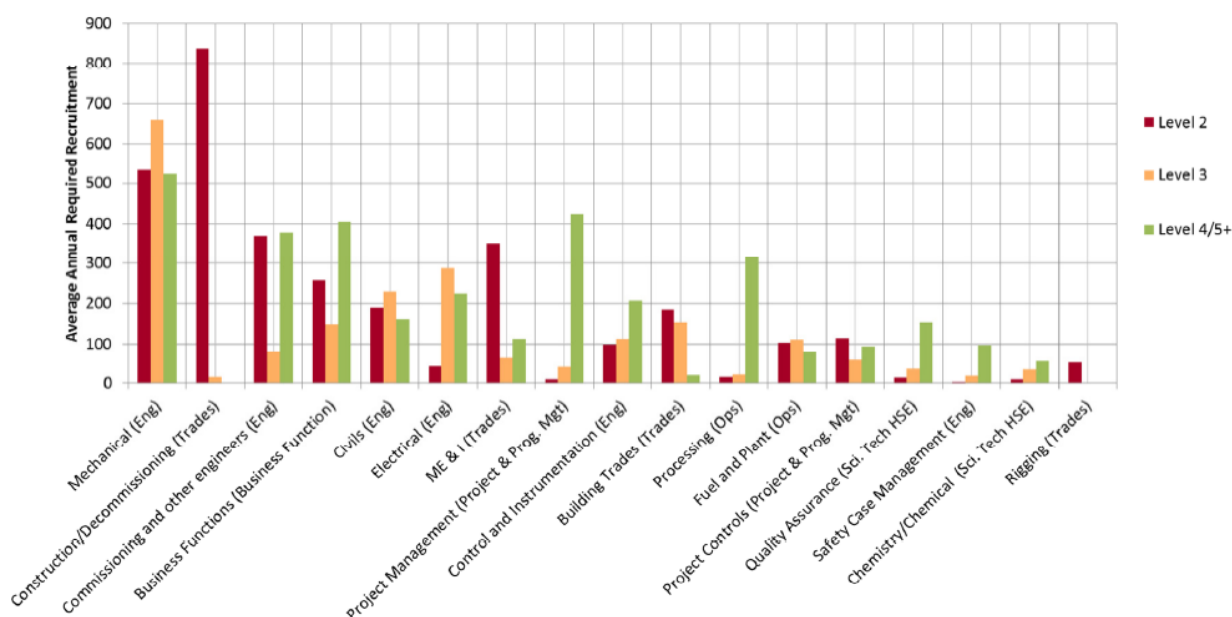
³ Includes defence and supply chain

Table 3-1 Forecast UK annual recruitment requirement to 2021

Resource Type	Technical (L2+L3) per year	Professional (L4/5+) per year	Total
Business	410	400	810
Engineering	2,660	1,460	4,120
Operations	280	410	690
Project Management	240	660	900
Science Technical & SHE	210	330	540
Trade	1,770	170	1,940
Total	5,570	3,430	9,000

- 3.2.4 Figure 3-3 presents the annual recruitment requirement to 2021 across the industry at a more detailed level. Particularly high skills shortages are identified for Mechanical Engineering, Construction and Decommissioning Trade, Project Management and Electrical Engineering.

Figure 3-3 Forecast UK Average Annual Required Recruitment 2015 to 2021⁴



3.2.5 In addition to skill shortages that exist by virtue of the scale of recruitment required, there is also a critical need for low volume, niche skills, such as high level STEM skills. Level 4/5+ jobs within science and engineering disciplines typically have long education, training and experience lead times. Recruitment of 2,200 FTEs at this skill level will be required every year to 2021 to meet projected national demand.

3.3 Construction Skills

3.3.1 The Construction Industry Training Board (CITB) provides a regional picture of construction workforce demand set out in the Construction Skills Network Forecasts 2017-2021. Wales is projected to see an annual average output growth of 6.2% over the period 2017-2021, outstripping that of any other UK region. The increase in construction output is primarily attributed to the construction of the Wylfa Newydd Project, although growth within the infrastructure sector in general is predicted to be strong over the next five years.

3.3.2 Employment growth is projected to average 2.7% a year between 2017 and 2021, with a total construction employment growth of 14.4% in Wales over the five year period. Demand is predicted to be strongest for construction trades supervisors and civil engineering operatives, both with annual growth rates of 4%. It is forecast that growth will be fairly evenly spread across the major occupational categories – managerial/supervisory, professional, and trades.

⁴ Only areas where one or more levels have a required recruitment level above 50 FTEs per year are shown.

- 3.3.3 It is projected that Wales' annual recruitment requirement will be 3,890 between 2017 and 2021. This takes into account workforce flows into and out of construction. This requirement equates to 3.4% of existing 2017 construction employment. This is well above the UK ratio, which is a recruitment requirement of 1.4% of the size of the current workforce. Table 3-2 below sets out the annual recruitment requirement by occupation, identifying that the areas of greatest skill shortage fall within wood trades and interior fit-out, bricklaying, electrical trades and installation, labourers, and other construction professional and technical staff.

Table 3-2 Total Construction Recruitment Requirements Occupation for Wales

Occupation	2017	2021	Annual Reqt.
Senior, executive & business process managers	3,640	3,730	70
Construction Project Managers	1,430	1,610	<50
Other construction process managers	8,790	9,990	-
Non-construction professional, technical, IT etc	9,500	10,490	330
Construction trades supervisors	2,530	3,070	120
Wood trades and interior fit-out	14,780	16,180	770
Bricklayers	6,910	7,890	390
Building envelope specialists	3,770	4,250	70
Painters and decorators	5,670	6,560	260
Plasterers	4,800	5,300	130
Roofers	1,320	1,470	60
Floorers	130	140	-
Glaziers	650	710	<50
Specialist building operatives nec*	3,610	4,110	-
Scaffolders	840	880	-
Plant operatives	1,970	2,180	<50
Plant mechanics/fitters	1,510	1,800	70
Steel erectors/structural fabrication	1,390	1,420	-
Labourers nec*	6,010	6,680	320
Electrical trades and installation	6,950	7,750	330
Plumbing and HVAC Trades	10,350	11,990	180
Logistics	860	1,000	<50
Civil engineering operatives nec*	1,340	1,620	<50
Non-construction operatives	1,260	1,270	-
Civil engineers	2,130	2,550	110
Other construction professionals and technical staff	5,830	6,810	360
Architects	1,290	1,480	50
Surveyors	4,270	4,190	160

Source: ONS, CSN, Experian. *Not elsewhere classified

- 3.3.4 Skills shortages indicate areas where training should be focused in order to bridge the gap between demand and supply. For the nuclear industry, at a national level, particular skill shortages are forecast to exist within Mechanical Engineering, Construction and Decommissioning Trades, Project Management and Electrical Engineering. Training should focus on these resource areas in order to meet demand.
- 3.3.5 Within Wales, the greatest skills shortages over the period up to 2021 are projected to be wood trades, electrical trades, labourers, and other construction professional and technical staff. Focusing training on these specific skill areas will help to meet recruitment requirements for the sector.

3.4 High Labour Demands and Skills Requirements

- 3.4.1 The following tables (Table 3-3 to 3-6) provide additional information on the occupations in the workforce profile shown in Figure 2.3. They show the trades for which the Wylfa Newydd Project is expected to have significant need, and where there are forecast skills or recruitment shortages, either in North Wales or the adjacent North West region of England. For context, they also show the level of peak demand, when it is expected to occur, how long it takes to train for those roles and some other key considerations for successful local recruitment and training.

Table 3-3 Civil Engineering/Construction Trades

Trade	Peak volume	Peak Year	Time to train	Key considerations
Labourers	1,127	Year 5 Q4	From two weeks up to 18 months	Low barriers to entry, basic skill requirements with main training developed on-site, high churn rates and entry point to other trades.
Carpentry	750	Year 3 Q4	From one year up to two years	Entry level training can be undertaken on the job, but provision needs to reflect industrial not domestic need.
Steel fixing	518	Year 3 Q4	From six months up to two years for level 2	Low barriers to entry, high UK demand, very mobile workforce and limited UK training provision.
Scaffolding	462	Year 5 Q3	From six months up to two years for level 2	Low barriers to entry, high UK demand, demand across construction cycle and limited formal training provision, with propensity to learn on the job.
Plant operatives / Rigger	376 / 269	Year 5 Q3	Dependent on previous experience, up to six months	Mandatory CPCS and requirement to undertake number of hours of driving provision. Transferable to a range of build programmes. Training can be undertaken on or near site.

Table 3-4 Mechanical & Electrical Engineering

Trade	Peak volume	Peak Year	Time to train	Key considerations
Electrician	929	Year 5 Q3	Two to three years	Whilst training can be undertaken on the job, a certain level of competence will be required before being allowed on site. Electrical skills will need to be industrial focussed rather than domestic. Although the overall peak is high, the decline from the peak requirements is significant, so sustainability of employment / effect on wage levels should be a key consideration.
Pipe fitting	680	Year 5 Q3	Apprenticeship in Engineering manufacture (operator and semiskilled) is from three years with additional competency testing	Although the overall peak is high, the decline from peak requirements is significant, so sustainability of employment / effect on wage levels should be a key consideration.

Table 3-5 Site Services

Trade	Peak volume	Peak Year	Time to train	Key considerations
Offsite services	393	Year 4 Q3	From two weeks to 18 months	<p>Dependent on specific role and previous experience.</p> <p>Training could be as little as two weeks work preparation (e.g. for security, basic administration, cleaners etc.) through to an 18 month vocational qualification (e.g. NVQ2 in Catering) or mandatory certification (e.g. Driver Certificate of Professional Competence for bus, coach or lorry drivers).</p>
Site services	499		From two weeks to 18 months	<p>Dependent on specific role and previous experience.</p> <p>Training could be as little as two weeks work preparation (e.g. for security, basic administration, cleaners etc.) through to an 18 month vocational qualification (e.g. NVQ2 in Catering) or mandatory certification (e.g. Driver Certificate of Professional Competence for bus, coach or lorry drivers).</p>

Table 3-6 Managerial & Supervisory Roles

Trade	Peak volume	Peak Year	Time to train	Key considerations
Supervisory / managerial roles	1,974	Year 5 Q4	From three years through an apprenticeship or graduate scheme	Dependent on specific role and previous experience, with competency in trade a prerequisite.

- 3.4.2 The nature of training and the length of time needed to achieve competency influence the required approach to a training strategy for each occupation. The assumptions about the skills required in each of the “high need” occupations - and the appropriate skills pathways that come from these - are set out in Table 3-7.

Table 3-7 Employment Opportunities by Discipline

	Site Services	Civil Operatives	M&E operatives	Professional & Supervisory
Assumptions	High proportion home-based	Medium proportion home-based	Low proportion home-based	Predominantly Long-term temporary resident
	Significant entry level opportunities	Entry level routes into a variety of trades	Distinction between nuclear island roles and other M&E roles	High level skills
	Focus on Job readiness	Initial training requirement low	Skilled operatives Qualification & experience	National labour market
Pathways	Low levels of previous experience	Opportunities for up-skilling (traineeships/apprenticeships)		Opportunity for local skilled professionals
	Potential focus for hard-to-reach/ economically inactive	Opportunities for re-skilling (e.g. armed forces)		Opportunity for apprenticeship/g raduate routes – transition to operational
	Clerical/admin/ finance/ HR traineeships/ apprenticeships	Progression routes to supervisory roles		
		Scope for transition to operational after up-skilling		

4 Supporting Construction Skills

4.1 Introduction

- 4.1.1 Through their design and phasing, major infrastructure projects create particular challenges for main contractors and their supply chain alike. They have to deploy high levels of labour for short to medium term periods of employment, as well as making sure that all workers are able to comply with sector specific regulatory requirements.
- 4.1.2 The very specific regulatory requirements for the nuclear sector, focusing on compliance, quality and safety etc., place additional requirements on the construction workforce which will have to be incorporated in any future resourcing plans.
- 4.1.3 Typically, technical qualification requirements will be higher for the trade workforce in the nuclear sector, coupled with the requirement to demonstrate significant previous experience. In addition to industry-wide health and safety standards, such as Construction Skills Certification Scheme and CCNSG, there is an additional emphasis placed on safety culture and behavioural expectation on nuclear construction sites. The onboarding procedure and the linked vetting procedure is more onerous than for other major infrastructure programmes.
- 4.1.4 These requirements and procedures have implications in terms of the approach to recruitment, recognising:
- Highly specialist skills are part of a national or international labour market;
 - Early engagement with stakeholders and delivery partners needs to embed detailed understanding and expectations of the new and potential workforce;
 - Early engagement with the supply chain needs to raise awareness of requirements and address any capability / capacity issues in an open and transparent way;
 - Focus on pathways, recognising that up-skilling in the workforce is not necessarily linear;
 - Encouragement of vocational routes through the local education system with a focus on construction and operational roles; and
 - Off-site/enabling workforce will not necessarily require significant skill or training requirements.

4.2 Experience from Elsewhere

4.2.1 Horizon and its advisers have drawn on experience from elsewhere to identify some key lessons and insights from other projects. These include:

- Labour forecasting is an ongoing activity and not an exact science. Any business decisions made for supporting new provision or for adding additional capacity needs to consider a wider range of evidence, as well as having a clear view of what the sustainability of provision will be, once the peak labour periods have passed.
- Planning new or additional training solely against original forecasts is a risky approach but this can be mitigated. Incorporating early joint working with contractors and programme controls will help establish a more likely level of need.
- Planning new or additional training needs to have consideration for the wider sectoral requirements and the plans of other major projects. Understanding when other likely programmes overlap and their programme schedules will help understand when specific trades will be available or when trades will be more in demand.
- Scale is important to both contractors and local providers but for different reasons. Major infrastructure projects have the scale and opportunity to deliver significant benefits. However, there is a need to establish common needs and responses, as employers and training providers often have different drivers such the different perspectives on skills versus qualifications.
- ‘Aspiration raising’ needs to be managed and training offers must reflect - and be transparent about - the employment nature of the sector. Any pre-employment training needs to be directly related to an immediate labour opportunity on site. Equally, anyone seeking employment in the construction sector needs to be aware of the labour mobility requirements and the need to comply with industry standards, such as health and safety.
- Contractors and training providers will need to work at building their relationships, recognising that that they have different incentives and drivers. Both parties will likely have different approaches to making decisions and undertaking more entrepreneurial activities.
- Each major construction project has set new standards with regard to wider socio-economic activities, particularly in relation to increasing the number of apprentices. The ambition to have an even higher level of apprentices and newly qualified staff will need to be balanced against the need to have staff who are Suitably Qualified and Experienced Personnel (SQEP) / competent in their role and to be able to dedicate the levels of supervision required. Most contractors will also already have their own Apprenticeship arrangements

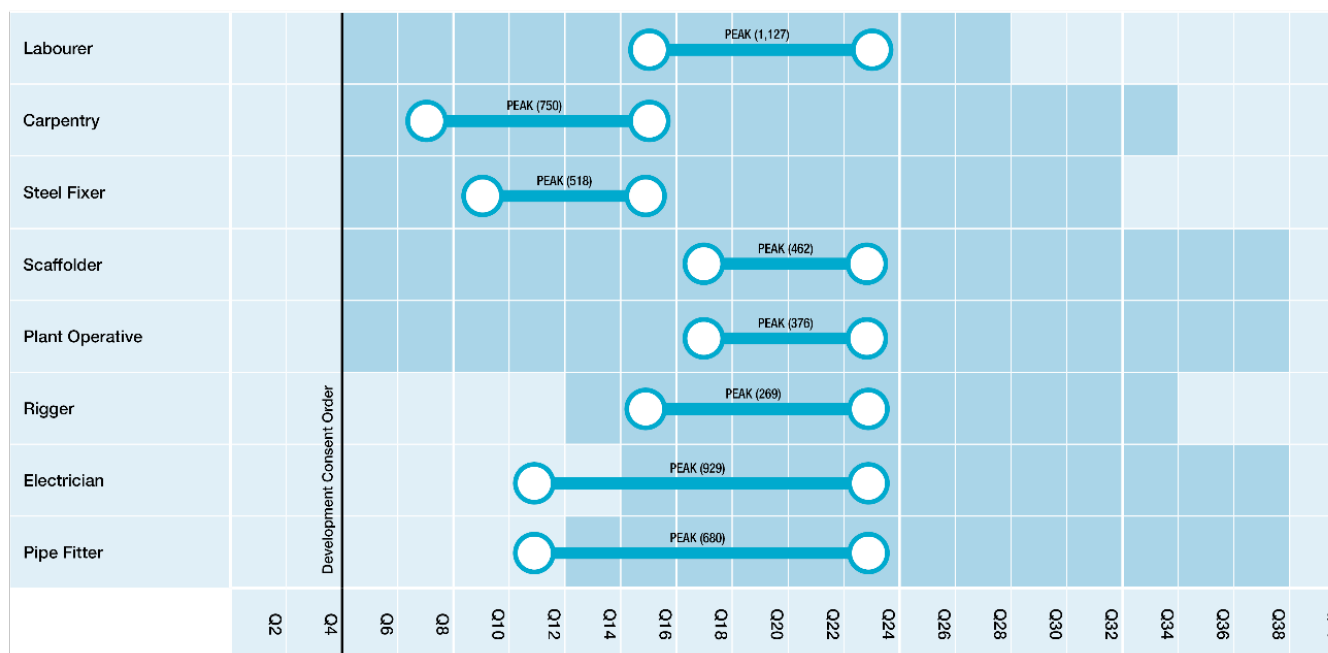
4.3 Delivering in Partnership

- 4.3.1 The Jobs and Skills Strategy for the Wylfa Newydd Power Station needs to align with regional approaches to skills, training and tackling worklessness. Horizon is therefore engaging with local stakeholders and will work with them to refine the approach and identify additional activity, backed by additional funding. It will be updated over time to take account of new information on skills needs and shortages and how they influence contractors' recruitment needs.
- 4.3.2 Horizon is working with Welsh Government and training providers – including Grŵp Llandrillo Menai and Coleg Cambria – and is sharing labour market information to enable them to plan as well as possible for forthcoming demands for training arising from the project. This is likely to include upskilling of existing members of the construction workforce as well as new entrants.
- 4.3.3 Horizon will also support the expansion of training provision. It has already committed £1m to the new Engineering Centre at Coleg Menai and Hitachi has donated heavy plant equipment and power tools to be used to train students.
- 4.3.4 Horizon will set ambitious skills, training and recruitment targets across the project as a whole and for its contractors. However, the points in paragraph 4.2.1 above about the timing of interventions and raising aspirations are particularly important. Given the uncertainties inherent in workforce demand forecasting it can be difficult to ensure that job opportunities align with when trainees finish some longer training courses. This can mean trainees have to take work on other projects, sometimes outside the local area which is not always what they want to do.
- 4.3.5 The following figure shows the broad outline of when training needs to be provided to align with project demands, focusing on the key trades where there is both high demand and a high existing need in the industry. Further details on the training requirements for different skills are set out in Appendix 9-1.

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Figure 4-1 Timings for Training and Recruitment in Key Trades

Indicative Trades by Active Years and Minimum Training Periods to meet Peak Labour requirements



Notes:

1. Absolute number of trainees / semi skilled staff will be limited by NAECI agreements (craft to non craft ratios) and the supervisory ratios set by the Office for Nuclear Regulation (ONR) which could be 2% of total workforce.
2. All training times indicated are the minimum period to achieve at least a L2 qualification and to meet peak labour requirements. Additional time will also need to account for at least a year site experience which will be the minimum experience pre-requisite set by a contractor, plus any training required to work on a nuclear construction site.
3. The higher the skill level, the higher the level of previous experience will be required by a Contractor.
4. To be able to build site experience before labour levels start to climb, work experience will need to be sought on other construction projects.

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- 4.3.6 Horizon will work with local stakeholders and training providers to try and ensure training aligns better with likely demand. One of the key mechanisms for doing this will be the Wylfa Newydd Employment and Skills Service. Further details on this are set out in the following Section (and see paragraph 8.1.4).
- 4.3.7 There may also be a need for investment to increase training capacity across the region, or to provide access to existing capacity outside the region. Horizon is currently working with local colleges and the CITB to understand the nature of local training provision and mapping it against likely demand from the Project. Where gaps are identified the partners will work with funders and other providers to ensure capacity is sufficient, drawing on the Skills Fund as required.

5 Wylfa Newydd Employment and Skills Service

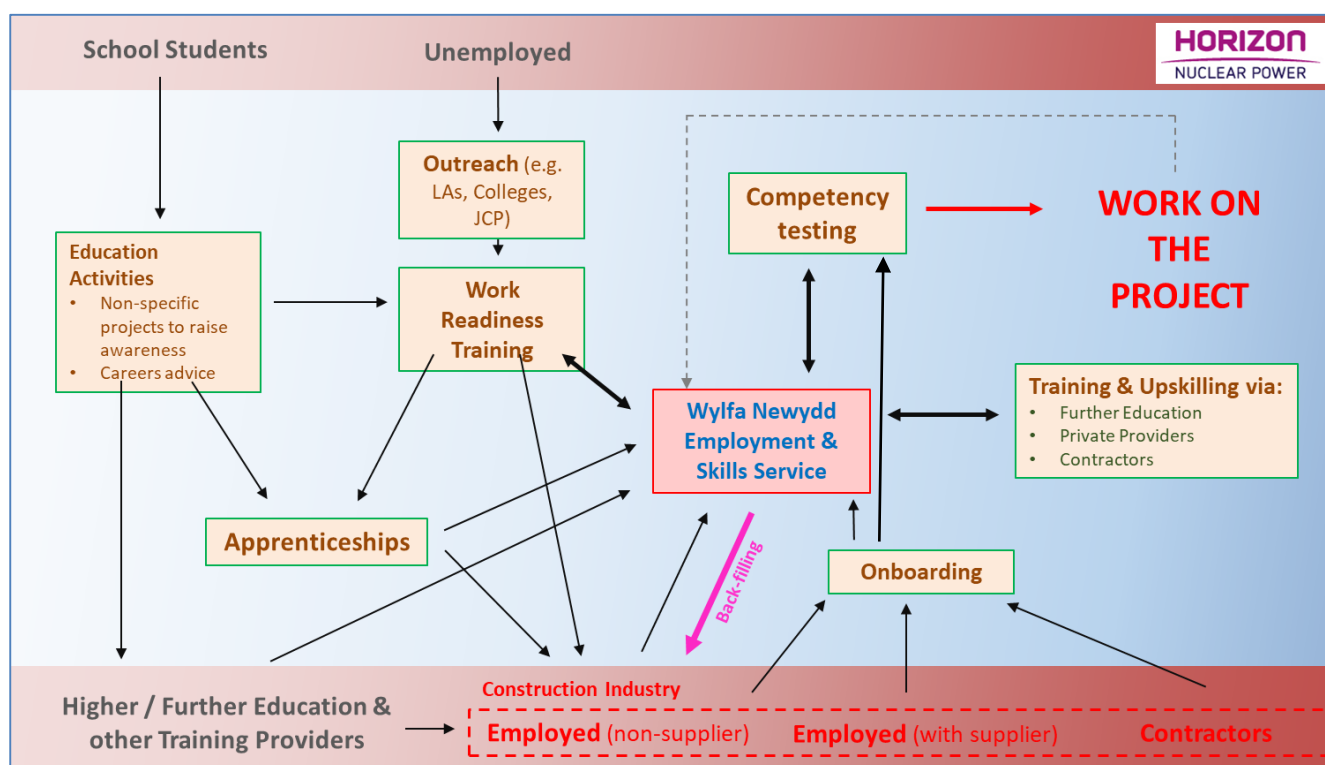
5.1 Introduction

- 5.1.1 Horizon is working with Welsh Government, the Department for Work and Pensions and other stakeholders to develop a Wylfa Newydd Employment and Skills Service (WNESS). Its role will be to place people into sustainable employment created by the building of the Wylfa Newydd Power Station and the construction of its Associated Developments. Horizon will also consider extending the model in the future to include the employment of operational staff, subject to monitoring and evaluation of the effectiveness of the WNESS.
- 5.1.2 To be successful the WNESS must be effective in capturing vacancies with the Wylfa Newydd Project's contractors, whilst ensuring that there is a supply of suitably trained and competent people ready to fill them.
- 5.1.3 The remit of the WNESS is to focus on:
- Providing employment opportunities for residents of Anglesey and North Wales;
 - Helping to tackle unemployment through the pre-training of suitable and assessed candidates in occupations that are in demand by Horizon's contractors;
 - Working with contractors to provide apprentice opportunities for people;
 - Widening employment and skills opportunities for those typically under-represented groups in the construction and engineering sectors; and,
 - Maximising leverage and support from Welsh Government funding agencies, sector skills councils, trusts, support organisations and businesses to ensure opportunity is available to a broad range of local people and not only those who are in long term unemployment.
- 5.1.4 The strategic partners involved in the WNESS are:
- Department for Work and Pensions
 - Welsh Government
 - Horizon
 - IACC
 - Grŵp Llandrillo Menai
 - North Wales Economic Ambition Board
- 5.1.5 These strategic partners are working together to identify the required skills related to the vacancies that are available and will identify suitable programmes to support the client groups to allow the smooth transition from unemployed to employed status.

5.2 Structure

- 5.2.1 The broad structure of the WNESS is set out in Figure 5-1. It shows routes for local residents through training and preparation for work; through the WNESS and potentially for training, upskilling and competency testing; and through onboarding and onto the project.
- 5.2.2 The left-hand side of the structure shows how local residents not currently in work will find a route onto the project – either via education for young people or via outreach for older people. Those in employment (shown at the bottom of the diagram) will access work on the project via the WNESS or directly through contractors. All workers will need to go through an induction and competency testing process and it is possible that this will identify further training needs, either to get onto the project or to change roles within it.
- 5.2.3 It also provides a structure by which other local employers can fill any vacancies that might arise as a result of employees taking jobs on the Wylfa project. This is called “backfilling”.

Figure 5-1 Indicative Structure of the Wylfa Newydd Employment & Skills Service



- 5.2.4 The process provides pathways to employment for customers of the WNESS through effective ‘Job Ready’ support, skilling, brokering and contractor facing activity. A significant benefit of the model in the future is that the construction workforce can continue to be brokered into new employment opportunities during the lifetime of the Wylfa Newydd Project, but also into other construction opportunities.

5.3 Backfilling of Vacant Positions

- 5.3.1 Horizon has undertaken three stages of Pre-Application Consultation over the last three years. Feedback from these has highlighted concerns about existing employers losing staff to the project. The business survey undertaken by Horizon also identified a limited number of businesses concerned about losing staff. However, it is clear there is a possibility that some staff will change jobs and that this may leave behind vacancies that cannot be filled internally.
- 5.3.2 One of the concerns raised relates to wage levels. It should be noted that within the construction roles, it is likely that the project will be paying the standard rates agreed in the National Agreement for the Engineering Construction Industry and/or by the Construction Industry Joint Council. As a result, there will be a wage premium only for people with higher skills not for people already in the construction industry changing jobs.
- 5.3.3 At this stage it is impossible to know the likely scale of the potential backfilling needs, or in which occupations it might occur. Horizon is therefore proposing that any employer facing this situation should have access to the WNESS and be able to use it to backfill any vacancies. Given that the WNESS will be trying to recruit into the roles that might be taken up, it should have a supply of job-ready people who would be equally skilled to backfill any vacancies as they would to take a job on the Wylfa Newydd Project.
- 5.3.4 To date Horizon has contributed up to £500k to Cwmni Prentis Menai (Menai Apprentice Company) to combat skills displacement with its own Technical Apprenticeship Scheme. Initially, these contributions were to be stopped upon commencement of Horizon's own scheme, however the funding has been continued into 2017. The contributions have been used to employ individuals on apprenticeships offered by Grwp Llandrillo Menai in trades such as construction and plumbing.

6 Operational Workforce

6.1 Introduction

- 6.1.1 Horizon's goal is to ensure that it has enough suitably qualified and experienced (competent) people in order to run the Wylfa Newydd Power Station safely for its planned lifetime, as well as maximising training and employment opportunities for local people. Once operational the plant will employ around 850 people.
- 6.1.2 As set out above, the operational workforce at Wylfa Newydd Power Station will consist broadly of people in the following areas:
- 25% Operations;
 - 25% Maintenance;
 - 25% Engineering;
 - 10% Technical Support; and
 - 15% Business Support and other trades.
- 6.1.3 In addition, up to 1,000 extra workers may be required on a temporary basis for scheduled maintenance and re-fuelling outages. The specialist nature of some outage activities usually requires additional skills to be deployed as a complement to those already held by the operational workforce or regional supply chain. Outage staffing would therefore tend to draw on a combination of regional, UK and international workforces.
- 6.1.4 The Wylfa Newydd Project is a unique opportunity to provide high quality, highly skilled jobs for successive generations in Anglesey, North Wales and beyond. To ensure sufficient numbers of competent people are available as required by the project, a number of steps (which are outlined in this section) have been taken to guarantee this into the future. These steps have been developed taking cognisance also of the effects of skills displacement within the wider community and sensitive to community issues such as use of the Welsh Language.

6.2 Approach to Recruitment and Training

- 6.2.1 Horizon has committed to advertising all Wylfa Newydd Power Station posts bilingually and in the local press (both hard copy and on line) to ensure the highest possible awareness of opportunities.
- 6.2.2 Appointments to roles at Wylfa Newydd Power Station will be based on individual merit. Each operational position will be subject to a job competency and task analysis. Combined, this will result in a comprehensive understanding of the knowledge, skills and attributes that would be required by the post holder. This profile will then be analysed to produce a checklist of the required training for individuals to hold the post and, where necessary, to produce on the job training guides to adequately document experience and performance of practical tasks. For some posts, this training can last for one day; for others, the training programme can take up to two years.

- 6.2.3 The arrangements made for training must be satisfactory against Nuclear Site Licence Condition 10 and the relevant Environmental Permits (in addition to other legislation). The arrangements for competency must be satisfactory against Condition 12 (Suitably Qualified and Experienced Persons). Arrangements to meet these conditions must be fully developed at the time of licence application. The control and management of change within an organisation, including its people, is governed by Condition 36.
- 6.2.4 Horizon retains ultimate responsibility, oversight and control of its arrangements as a licence and permit holder. It has engaged a Training Support Partner to train and qualify all utility personnel at Wylfa Newydd Power Station. The Training Support Partner forms part of Horizon's Operating Partner network which ensures that Horizon has sufficient and adequate 'reachback' to existing nuclear plant operators globally to be able to perform a variety of functions. Some of these functions related to people include the ability to be able to provide new employees with practical experience on a nuclear facility, bespoke training and access to operating experience to inform the training programme.
- 6.2.5 Horizon would be the principal employer for the operational staff, it is anticipated that the workforce would be recruited from:
- Qualified Apprentices and Trainees from other schemes;
 - Qualified Graduates;
 - Related industries and organisations, including Ex Armed Forces;
 - The existing UK nuclear workforce (Horizon has established links with Magnox to discuss the potential transition of staff from north Wales sites to the operational workforce); and
 - Members of Horizon's existing staff wishing to transfer to the operational workforce.
- 6.2.6 The specialist knowledge required to design, build and operate Advanced Boiling Water Reactors (ABWRs) would be transferred from the nuclear industry internationally, principally from Japan and the USA and will be developed within the local workforce as a clear legacy benefit of the project.

6.3 Apprentices

- 6.3.1 Around one-third of the operational workforce will be required to be skilled to technician level, making the apprenticeship route an important entry point to a career at Wylfa Newydd Power Station. In 2016, Horizon's first cohort of 10 apprentices started with local provider Grŵp Llandrillo Menai. An additional 11 Horizon apprentices started in 2017 and Horizon plans to recruit up to 12 in the 2018 cohort. The first cohort is undertaking a Level 2 Performing Engineering Operations qualification which will be followed by a BTEC Level 3 and NVQ Level 3 in a chosen engineering discipline. The three-year programme involves a common first year, after which the apprentices will be streamed into either electrical, control and instrumentation or mechanical routes.

- 6.3.2 Entrants onto the Apprentice programme are more likely to be local to the power station. Maximising the opportunities available to apprentices will help to ensure that the Wylfa Newydd Power Station workforce is more closely representative of the local community. The apprentice programme is a key part of Horizon's Jobs and Skills Strategy and will grow in future years to ensure an adequate supply of suitably trained people ready for employment at Wylfa Newydd Power Station.
- 6.3.3 Currently the apprentice provision is suitable for the current period in the Wylfa Newydd Project, however it will need to expand to meet the future needs of the business. This will include (but not necessarily be limited to):
- Expansion of apprentices able to be accommodated in any one year;
 - Increasing the breadth of subjects available (such as radiation protection, computing and chemistry); and,
 - Advancing the qualifications that can be achieved (such as higher level or degree level apprenticeships).
- 6.3.4 Horizon will work with Grŵp Llandrillo Menai and industry skills bodies to ensure that the apprentice provision is constantly adapted and improved to meet the requirements of the Wylfa Newydd Project.

6.4 Graduates

- 6.4.1 Horizon launched its graduate development scheme in 2016 and also recruited graduates for specific areas in the preceding years. The current Graduate Development Scheme provides an opportunity to attract high calibre recruits from North Wales and the wider area. The scheme offers graduates practical placements and the ability to work across Horizon's sites at Wylfa Newydd Power Station in Wales and the Sunrise House location in Gloucester. Opportunities also exist for Horizon to provide placements for external graduates (such as those from Nuclear Graduate schemes) or to place its own Graduates with other related businesses.
- 6.4.2 Horizon provides sponsorship for the University of Birmingham Physics and Technology of Nuclear Reactors course and has previously offered associated placements to participating students as well as subsequent employment opportunities. Sponsorship of the course enables delivery of industrial lectures to the course. In addition to Memoranda of Understanding with the Universities of Bangor, Manchester, Glyndŵr and Imperial College, the sponsorship of Birmingham allows Horizon to raise its profile amongst graduate students seeking employment.

6.5 Ex Armed Forces

- 6.5.1 People serving in HM Armed Forces are able to take a short service commission and retire at 38 or retire from active duty at 55, this provides a valuable resource from which to source skilled people. Such people may be returning to North Wales after a career in the Armed Forces or may have retired from local military establishments such as Royal Air Force (RAF) Valley or the Joint Services Training Establishment at Capel Curig. Horizon already has a good working relationship with RAF Valley and its related contractors and will develop this further.

6.6 Long Term Unemployed

- 6.6.1 To support the local long term unemployed in the return to work, Horizon will provide opportunities such as sponsoring courses and/or providing work experience within Horizon or its Supply Chain partners. Horizon will work closely with the Department of Work and Pensions (DWP) to ensure that all opportunities are publicised in good time. Horizon is working with Grŵp Llandrillo Menai, the DWP and others to setup the WNESS (set out above) to match people with relevant job openings.

7 Schools and Education

7.1 Introduction

- 7.1.1 An effective primary and secondary education programme is an important element of building a sustainable stream of suitably educated future recruits. Engagement with schools will be part of a strategy to communicate Horizon's requirements for education and skills and to demonstrate Horizon's commitment to wider issues i.e. community benefits and support for key political stakeholder objectives.
- 7.1.2 Horizon's education strategy focuses on three strands: inspire, engage and equip:
- **Inspire** young people to study STEM subjects.
 - **Engage** young people, key stakeholders and the local community about the future recruitment opportunities offered by Horizon.
 - **Equip** young people with key employability skills.
- 7.1.3 The original version of the strategy was developed through consultation with both internal (HR, L&D and Operations) and external stakeholders (IACC, EIP, Coleg Menai, Anglesey Head teachers, Education agencies) and took account of the findings of an audit in 2014 of STEM provision on Anglesey funded by EIP, Reaching Wider, NDA, North Wales Economic Ambition Board and Careers Wales (Careers Wales, 2014).

7.2 Objectives

- 7.2.1 This Strategy proposes to increase education activity in line with Horizon's project focus. There are two overarching objectives:
- **Support long term recruitment:** Horizon requires well-educated, well-skilled individuals for its workforce, either as trainees or as more experienced staff with a strong educational background. At full operation Wylfa Newydd Power Station will require around 850 permanent staff. There is good evidence to demonstrate that engagement by business and industry with the education sectors is effective in raising the profile of STEM subjects and increasing awareness of jobs and careers in specific industry sectors
 - **Enhance regional stakeholder support:** Education and prospects for young people are important topics in North Wales where jobs, employment and retention of population are key social and political issues. Active and continued engagement with education has created a real opportunity for Horizon to solidify and build long term goodwill and collaboration with the public and politicians. This extends beyond North Wales to Welsh Government (where skills and education are devolved matters). Education support sits comfortably in the centre of Horizon's

broader community benefits plan because of the significant potential benefits for both Horizon and North West Wales.

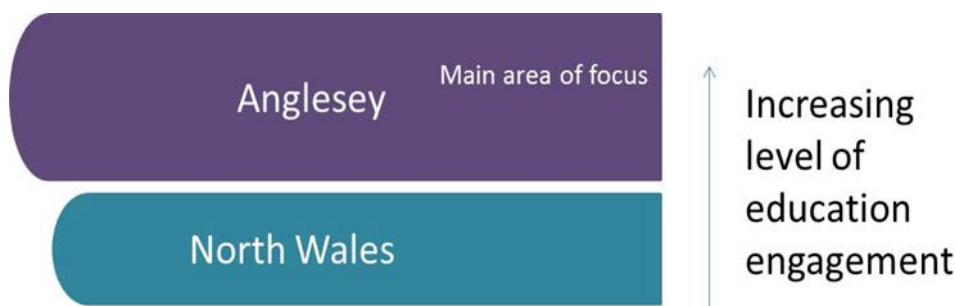
7.3 Schools and STEM Engagement

- 7.3.1 Early, constant and progressive engagement with local school children and young people, including with their teachers and parents is essential to spark initial aspiration and ensure sufficient numbers of local people are available for training and qualification into operational work.
- 7.3.2 Horizon currently has a programme of engagement with schools called the 'Dyfodol/Futures' educational engagement programme. This engagement plan is available to all schools on the Isle of Anglesey as well as schools in north Gwynedd and rolling out to the county borough of Conwy in both English and Welsh. It aims to promote Science Technology Engineering and Maths (STEM) and includes attending Career Fairs, assisting with mock interviews, delivering talks, skills events and apprenticeships awareness sessions.

7.4 School Engagement

- 7.4.1 Horizon's education engagement work has been useful in developing positive perceptions amongst young people of future employment opportunities. Horizon's active involvement with the Energy Island Programme and direct contact with education providers has laid a foundation for the future.
- 7.4.2 Since 2015 education engagement by Horizon has increased from 27 events / engagement activities in Wales during FY 2014-2015 to 81 during 2016-2017. Up to end of December 2017 Horizon has participated in 50 events / engagement activities in North West Wales, which range from Primary to FE sector. All educational events and activities are logged along with number of attendees / participants where possible.
- 7.4.3 Since February 2017 Horizon Nuclear Power has been promoting and delivering the Primary Outreach Programme, and to date, has already engaged with over 800 primary pupils across Anglesey, Gwynedd and Conwy. As well as direct delivery, Horizon has been training teachers and supporting schools to deliver the rest of the programme. The resource was developed with local primary school teachers and is mapped to the Curriculum of Wales. All new educational resources created and produced by Horizon will feature on the Futures website to allow dissemination of resources to a wider audience.
- 7.4.4 Horizon will target schools in priority geographical areas, engaging with all 5 Secondary Schools and 47 Primary schools on Anglesey and other Primary and Secondary schools in the nearby North West Wales mainland. Horizon will also accept requests and attend events and sessions at schools in Gwynedd and Conwy and will ensure attendance where possible to do so and will manage expectation.

Figure 7-1 Geographical priority areas.



- 7.4.5 To increase outreach, Horizon will seek to have two Education Officers who will work on a Term Time contract to engage, deliver and train teachers to use and embed the programme into their curriculum, and also to meet the need and expectation on us. One role will be a Senior Education Officer who will take responsibility for working with teachers to further develop primary and secondary resources. This will be an important part of the development of the education programme, as Horizon will ensure that it continues to deliver the programme and train teachers and inspire future generations into STEM-based careers and industries, including construction.

7.5 Partnerships

- 7.5.1 There are multiple agencies (not for profits, Government-funded, charities and businesses) who undertake educational activities. This Strategy advocates that Horizon should seek to work with partners who are capable and experienced in working with schools in areas of particular interest to Horizon and that complement other established activities/ programmes. Horizon is already working in partnership with the Jon Egging Trust – Blue Skies Programme, North Wales Economic Ambitions Board, GwE, Business in the Community, Widening Access Programme and Careers Wales to name a few. Horizon is also one of the main sponsors of the Profi Programme and also the STEM Family Challenge programme, through the North and Mid Wales Reaching Wider Partnership. Horizon will also support the expansion of training provision. It has already committed £1m to the new Engineering Centre at Coleg Menai and Hitachi has donated heavy plant equipment and power tools to be used to train students.
- 7.5.2 Partnership working is essential in strengthening the key employability and STEM skills message across the area, and shows that this is a national message rather than one driven by Horizon Nuclear Power.

7.6 Events

- 7.6.1 Horizon will support delivery of education activities in the proposed new Horizon Visitor Centre by Horizon and partner organisations

- 7.6.2 The teaching space will provide Horizon with facilities to run dedicated ‘out of classroom’ programmes for primary-aged children, led by Horizon Education Officers, within the vicinity of Wylfa Newydd. It is proposed that the Education Hub will also have the capability to deliver secondary and higher education activities on request. The current Wylfa Information Centre education programme is considered by stakeholders and the local community as an important and successful resource for schools. Development of a similar Horizon offering will bring substantial community benefits and project support.
- 7.6.3 As the Visitor Centre will not be developed pre-FID, Horizon has already increased its outreach activity, predominantly aimed at primary-aged children, and will look to continue the increase within the next couple of years, to ensure that pupils have access to the experiences that Horizon can provide through the outreach programme.
- 7.6.4 In working with stakeholders and partners, Horizon will be able to ‘loan’ the use of the Visitor Centre to deliver bespoke workshops that are relevant to their area of work. Horizon’s vision is to ensure that the Visitor Centre becomes a facility that is used by schools, partners and the local community.

7.7 Employee involvement

- 7.7.1 The Education programme strategy (schools) will be managed by Horizon, building on the successful STEM education programme delivery.
- 7.7.2 Horizon has already arranged STEM Ambassador training for staff, and will continue to encourage this as part of staff development.

8 Implementing the Jobs & Skills Strategy

- 8.1.1 This first version of the Jobs and Skills Strategy has set out at a high level the priorities and actions that Horizon proposes. It sets out the currently available detail on the types of construction skills the Wylfa Newydd Project will need, where those skills are already in short supply and where there is a reasonable prospect of training local people in them.
- 8.1.2 Horizon believes these should be the priority areas of focus for the Jobs and Skills Strategy and wants to work with partners to refine and develop the Strategy so that it has wide support.
- 8.1.3 It is not just Horizon's Strategy, it is a strategy for the whole of North Wales and needs to relate to the wider economy and the opportunities and threats that it faces.
- 8.1.4 In order to enhance local employment opportunities Horizon will establish a Skills Fund to support a range of education, training and employment initiatives relating to both the construction and operational phases of the project. This will be a flexible fund that can support:
- training capacity related to key skill requirements needed across the Wylfa Newydd Project;
 - development of training courses related to key skill requirements needed across the Wylfa Newydd Project;
 - operation of the WNESS (including outreach, work readiness training etc);
 - communication routes (including social media platforms) within the local community to enhance awareness of training and employment opportunities;
 - initiatives for upskilling of existing construction workers in the local area;
 - educational activity (especially focused around STEM subjects) to promote, in particular, skills for and interest in the nuclear and construction industries. This could include capital spending to support the curriculum but excludes spending on boosting school place numbers which is covered by the Community Impact Fund.
- 8.1.5 As the Wylfa Newydd Project progresses, the skills priorities will change and further information will become available about what is needed and when, and the existence of people with relevant skills in the local area.
- 8.1.6 Further work is therefore needed to refine and update the Strategy over time, in partnership with local stakeholders.
- 8.1.7 The CoCP sets out a monitoring framework, including an approach for how employment, as well as skills and training, will be monitored. An overarching Programme Board will be established and comprised of representatives from Horizon, IACC, Welsh Government, NRW, and the emergency services. Underneath the Programme Board will be a series of engagement sub-groups,

including one for Jobs and Skills. The membership of the sub-groups and their terms of reference will be agreed by the Programme Board.

- 8.1.8 Alongside this, Horizon is setting up Services for supply chain, jobs and skills and accommodation. The Jobs and Skills Service will be responsible for overseeing the WNESS and the Employment and Skills Portal, a web-based procurement platform that will capture vacancies with the Project's contractors and enable people to gain employment on the Wylfa Newydd Project. It will also provide monitoring reports from the Jobs and Skills Service.
- 8.1.9 Horizon will continue to develop the Strategy through the Statement of Common Ground process and working with local partners. The next steps will be to continue meetings with partners to make further progress on the Wylfa Newydd Employment and Skills Service and to agree a programme of training that will help to maximise the opportunities available to local people.

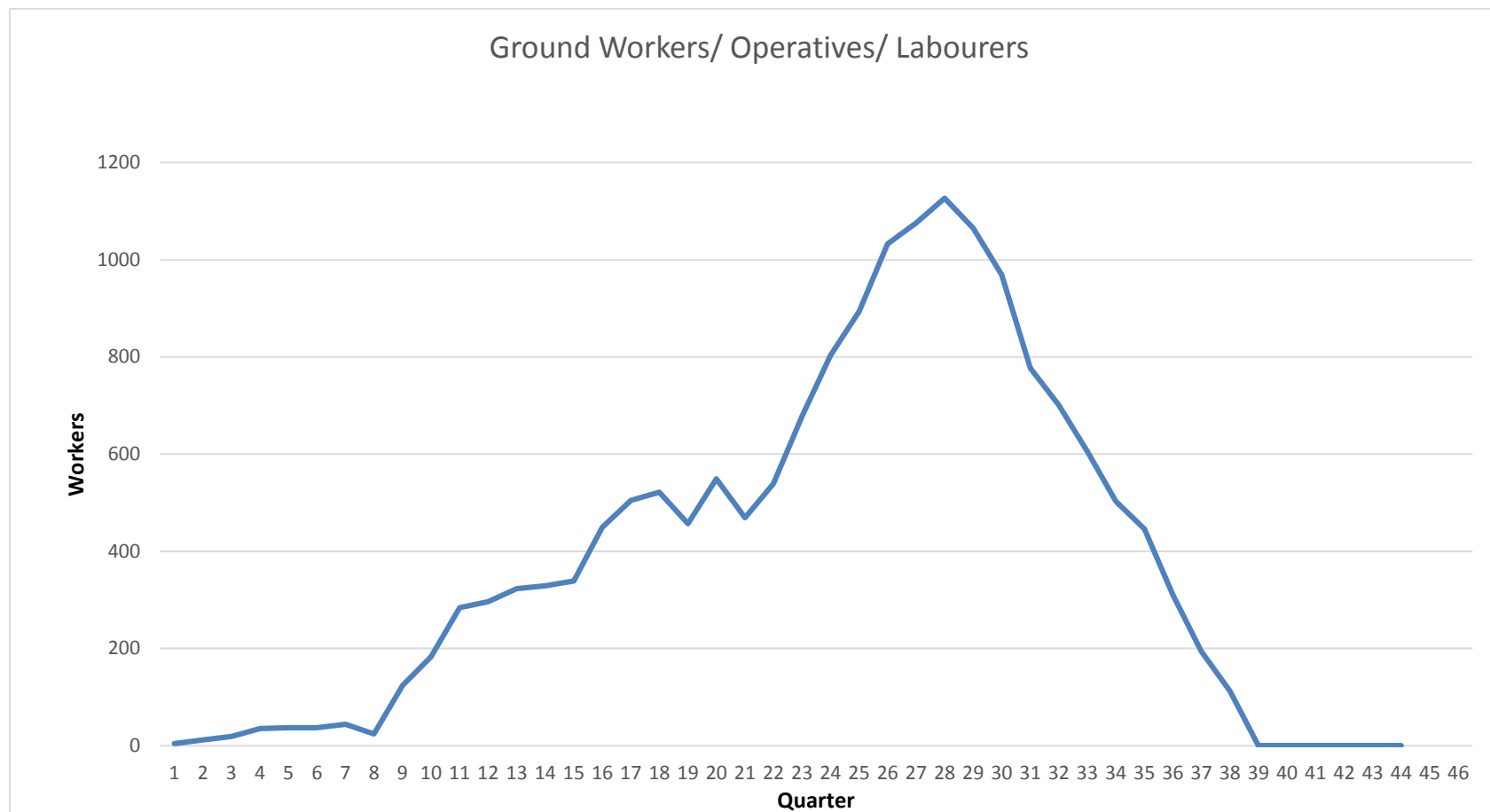
9 References

Table 9-1 Schedule of References

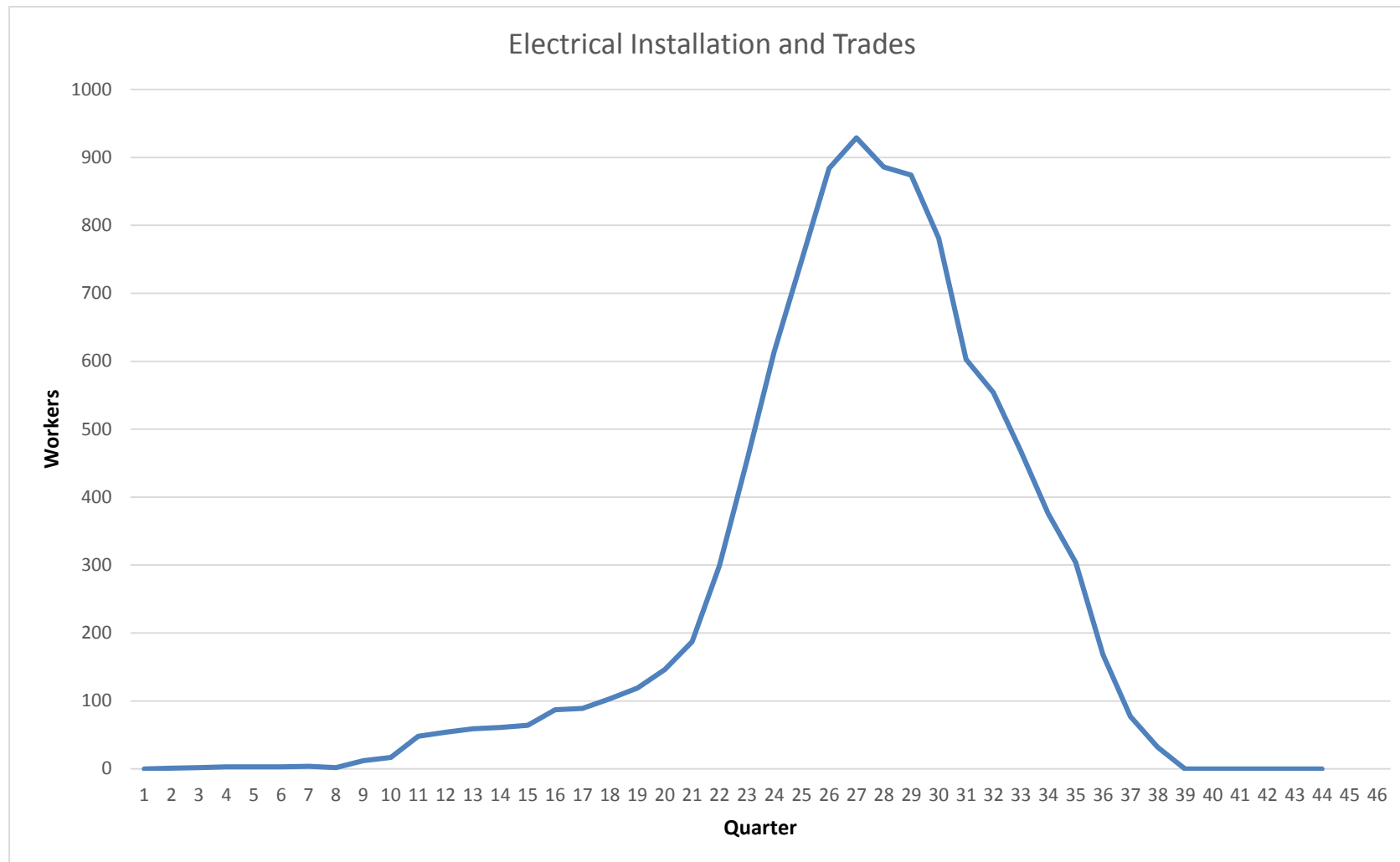
ID	Reference
RD1	Department of Energy and Climate Change. 2011b. <i>National Policy Statement for Nuclear Power Generation (EN-6)</i> . London: The Stationery Office.
RD2	IACC/Gwynedd Council. <i>Anglesey and Gwynedd Joint Local Development Plan 2011-2026</i> . 2017. [Online]. [Accessed: 10 January 2018]. Available from: http://www.anglesey.gov.uk/Journals/j/v/e/Anglesey-and-Gwynedd-Joint-Local-Development-Plan---Written-Statement.pdf
RD3	IACC. <i>Anglesey Economic Regeneration Strategy 2004-2015</i> . 2004. [Online]. [Accessed: 10 January 2018]. Available from: http://www.anglesey.gov.uk/download/10020
RD4	Anglesey Local Service Board. <i>Isle of Anglesey Single Integrated Plan 2013-2025</i> . 2013. [Online]. [Accessed: 10 January 2018]. Available from: http://www.anglesey.gov.uk/Journals/2013/04/02/v/h/y/Single-Integrated-Plan.pdf
RD5	Gwynedd Council. <i>Gwynedd Council Strategic Plan 2013-2017</i> . 2013. [Online]. [Accessed: 10 January 2018]. Available from: https://www.gwynedd.llyw.cymru/en/Council/Documents---Council/Performance-and-spending/Strategic-plan-201314.pdf
RD6	Gwynedd Together. <i>Improving Gwynedd Together: Gwynedd Community Strategy</i> . 2011. [Online]. [Accessed: 10 January 2018]. Available from: http://www.mantellgwynedd.com/mantellgwynedd/downloads/051112_improving_gwynedd_october2011.pdf
RD7	Conwy County Borough Council. <i>Conwy's Economic Growth Strategy (2017-2027)</i> . 2017. [Online]. [Accessed: 10 January 2018]. Available from: http://conwybusinesscentre.com/wp-content/uploads/2017/02/Economic-Strategy-E-17022017.pdf
RD8	North Wales Economic Ambition Board. <i>North Wales Regional Skills & Employment Plan</i> . (Annual). Caernarfon: Gwynedd Council.
RD9	Nuclear Energy Skills Alliance. <i>Nuclear Workforce Assessment 2015</i> . 2015. [Online]. [Accessed: 19 December 2017]. Available from: https://www.nsan.co.uk/system/files/furtherinfo/Nuclear%20Workforce%20Assessment%202015_R1.pdf

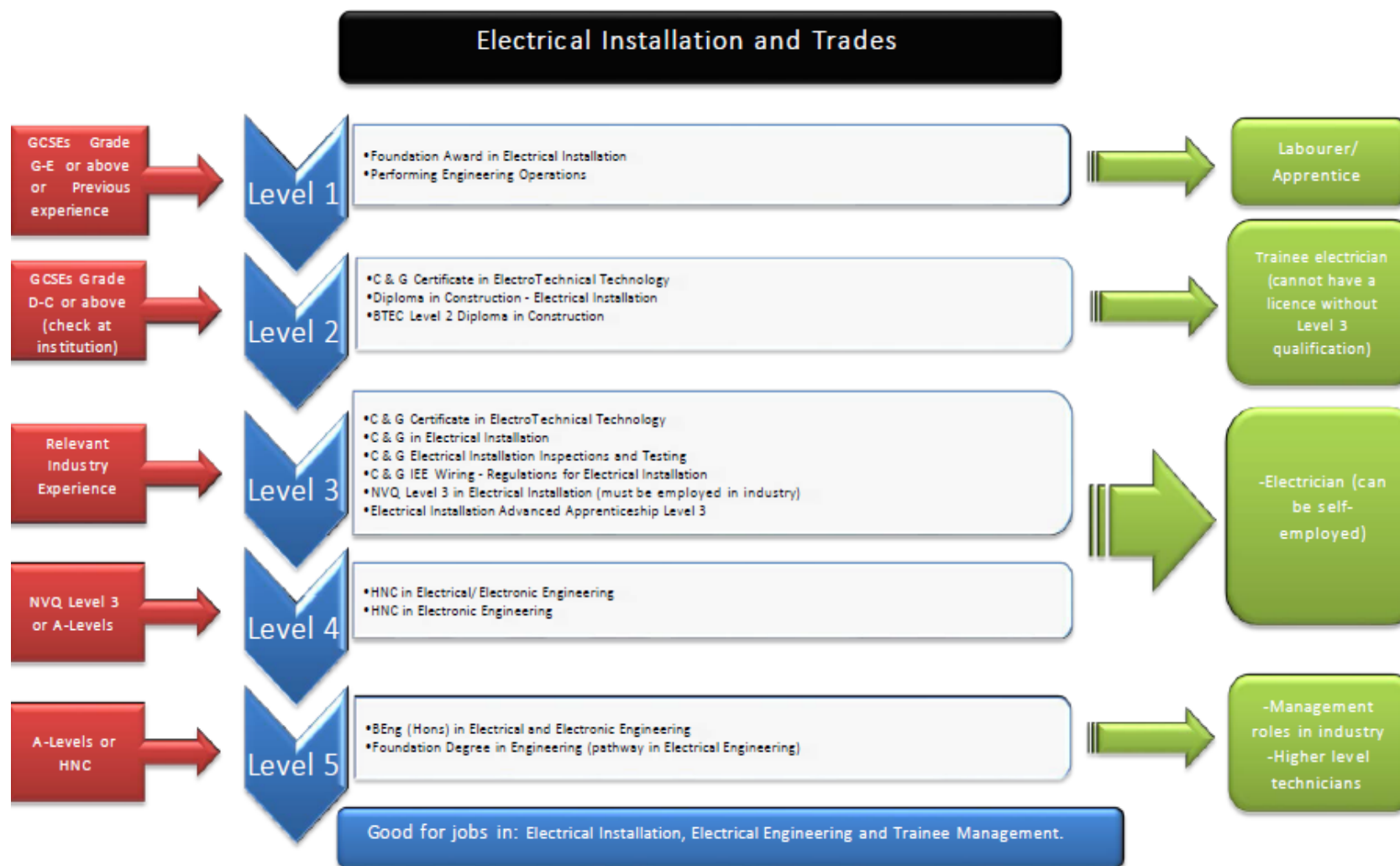
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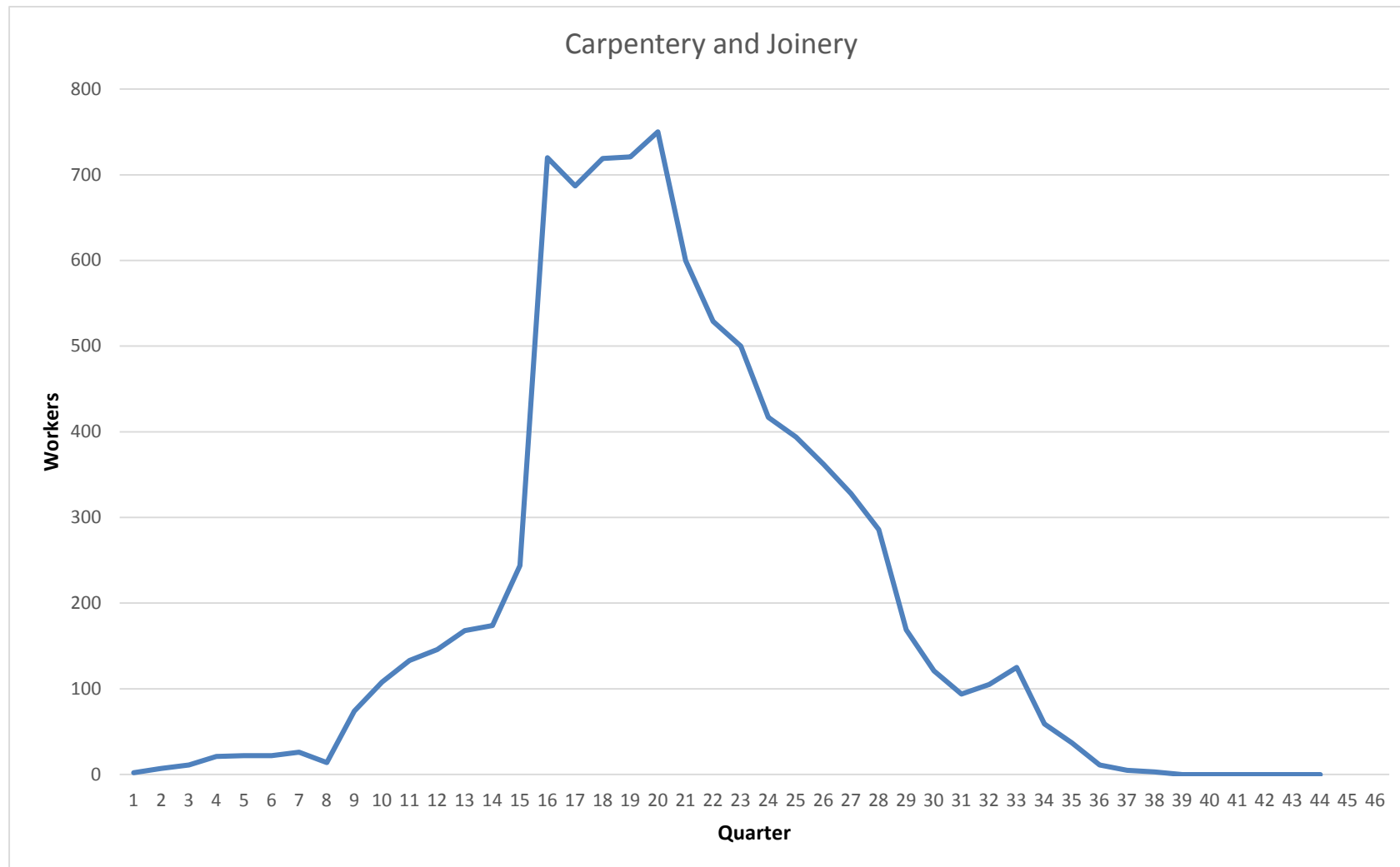
Appendix 9-1 Major Trades Employment and Career Pathways



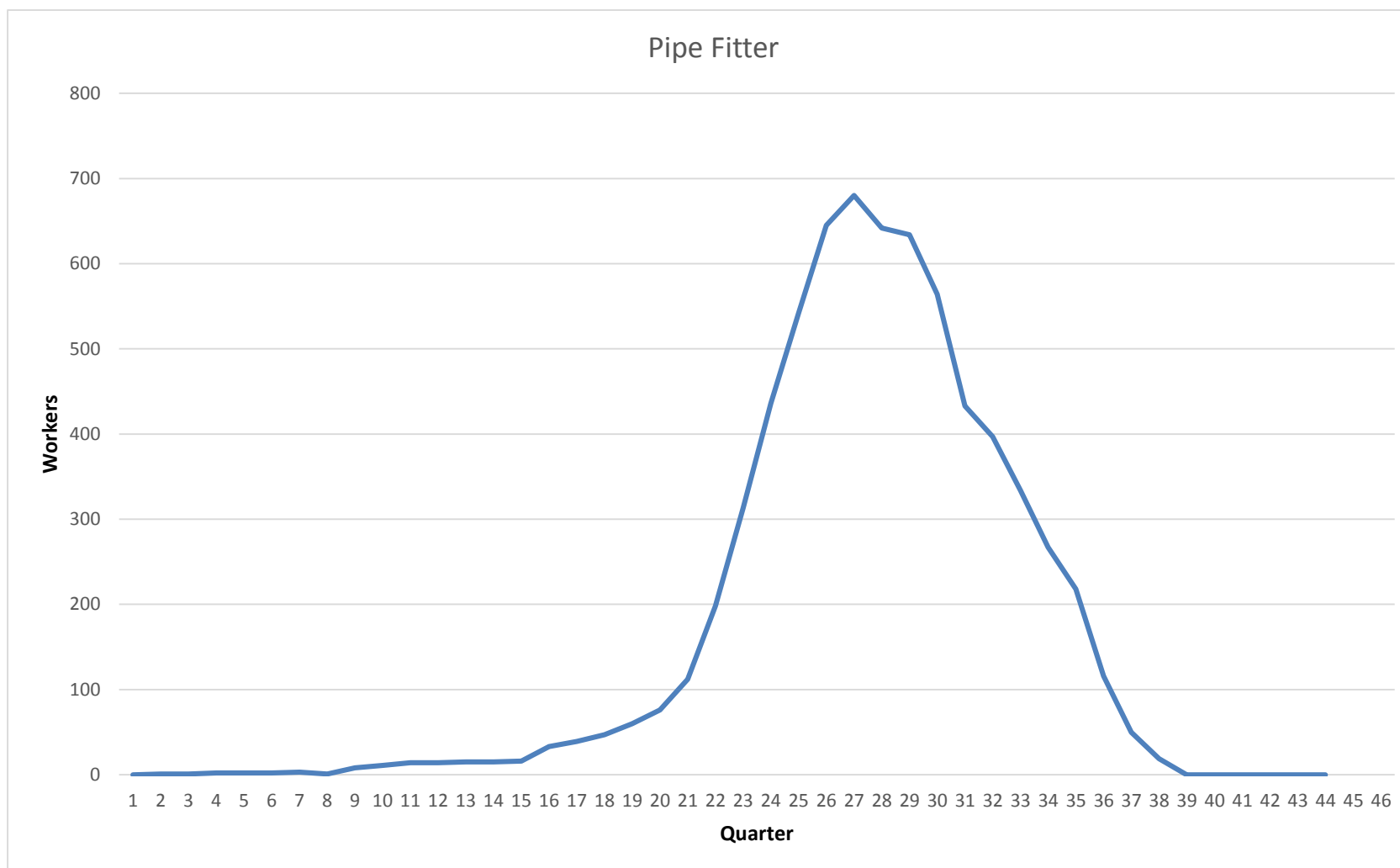


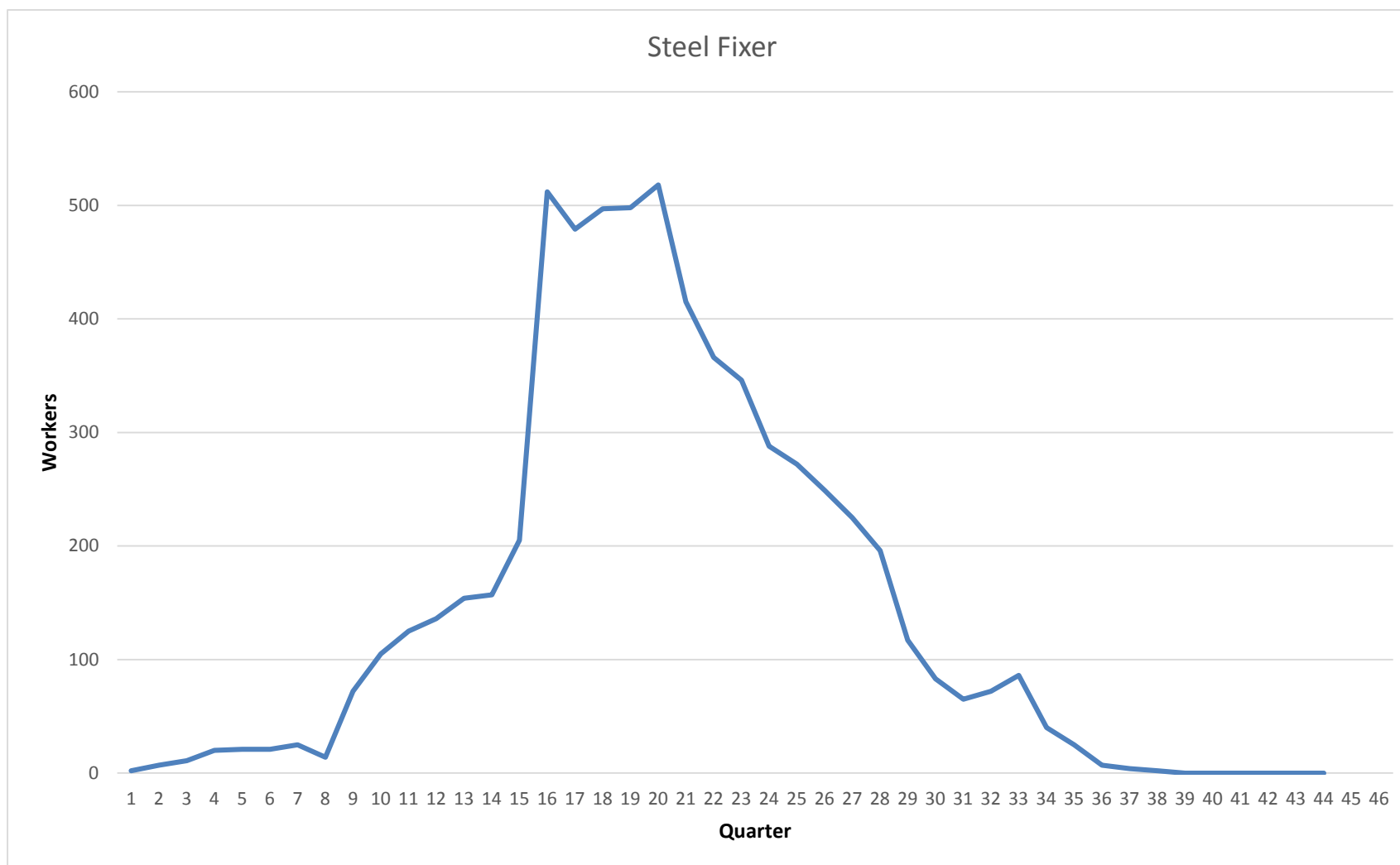


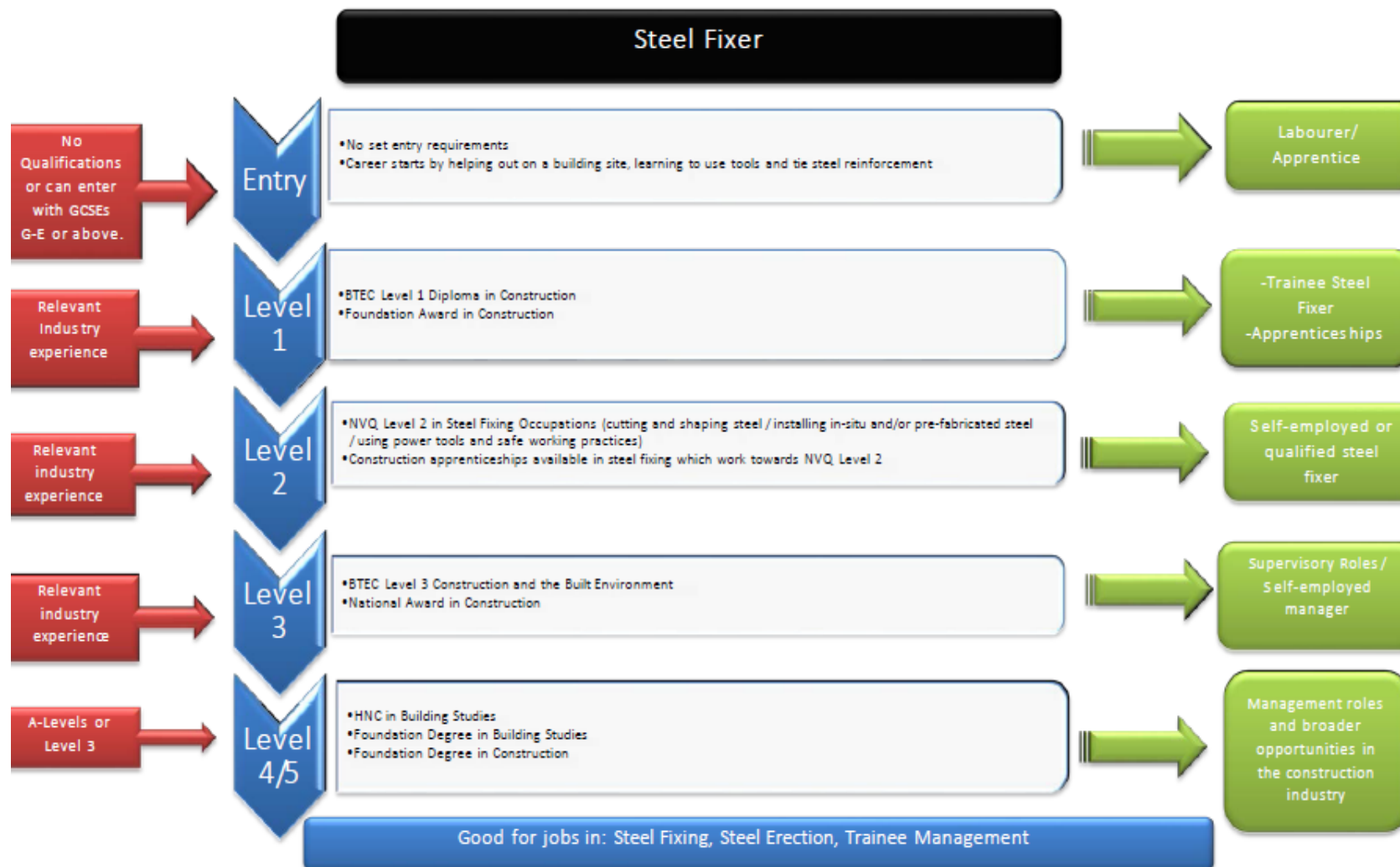


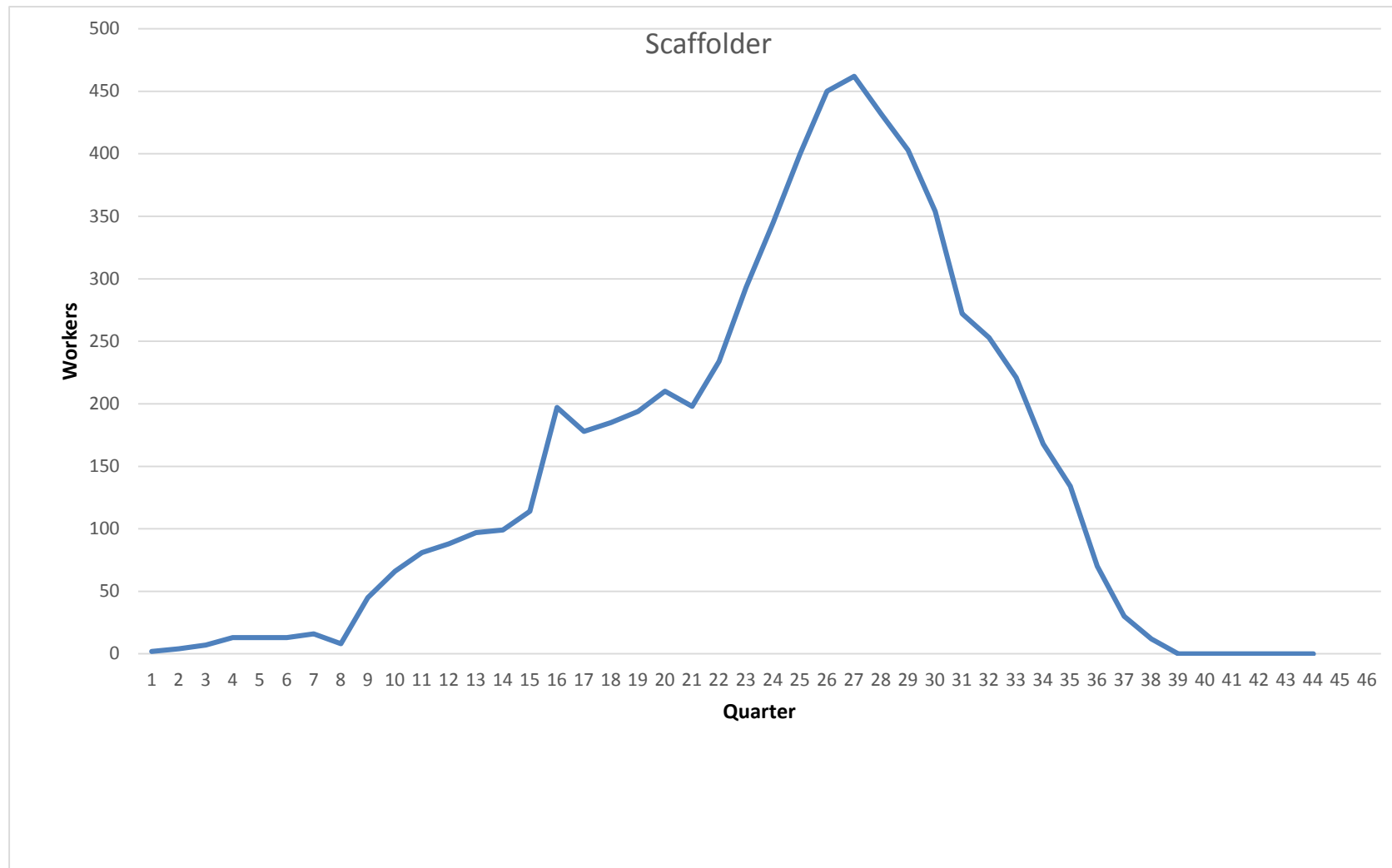


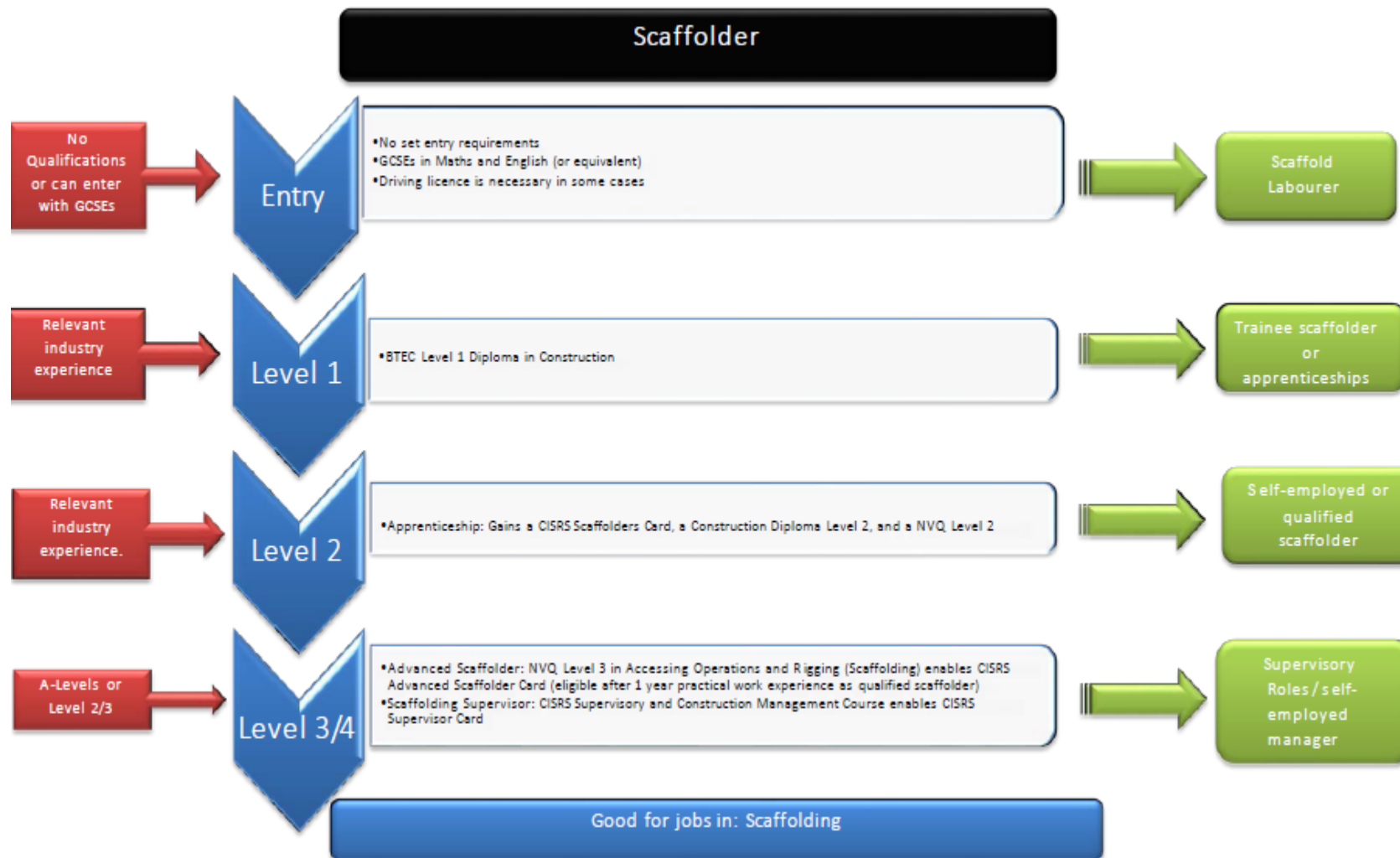


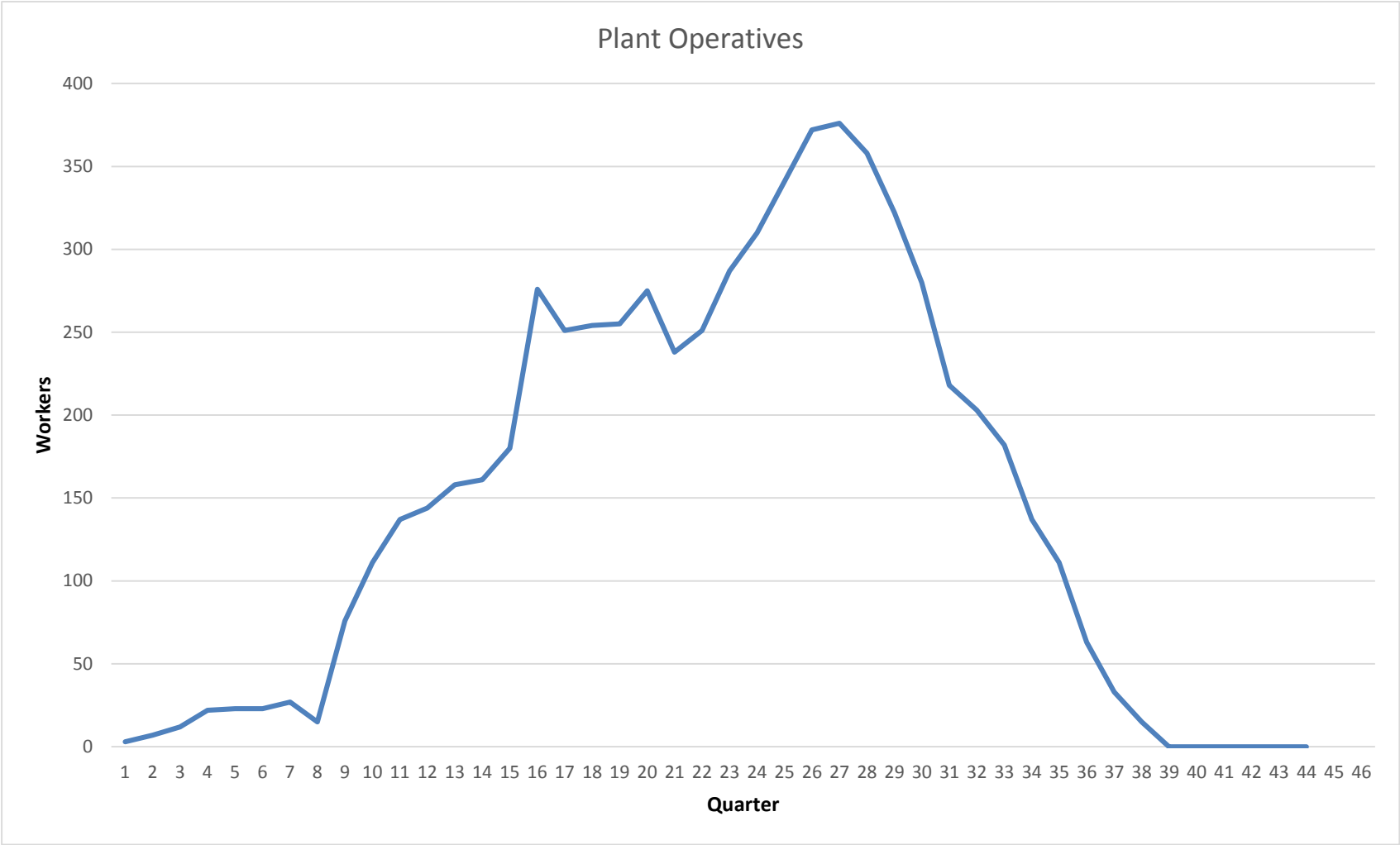














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