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## OUTLINE SKILLS AND TRAINING ACTION PLAN

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## OUTLINE SKILLS AND TRAINING ACTION PLAN

### CONTEXT

This Outline Skills and Training Action Plan has been prepared to outline the information that will be submitted in support of the discharge of Planning Condition 17 which requires such a Plan to be submitted and approved by the Planning Authority six months prior to construction.. It draws upon the assessment within the Environmental Statement, particularly regarding Impacts 6-10 in Chapter 25, as well as drawing upon the Supplementary Socio-Economics Assessment (MOR/BAU/DOC/0002) prepared by Dr E T Jones of the Economics Department of Bangor University. This Outline Skills and Training Action Plan also incorporates proposals that will be included in the Supply Chain Action Plan that is secured under Planning Condition 19. This joint approach has been taken because, at this early stage in the preparation of these plans, the detail that is available is not sufficient to view them in isolation and they are best combined to show how they interact.

Chapter 2 of the Supplementary Socio-Economic Assessment (MOD/BAU/DOC/0002) states as follows:-

*“In January 2017, Marine Energy Wales carried out a survey of the marine energy in Wales.<sup>1</sup> The analysis covers wave, tidal stream and tidal range energy.*

*In 2015, total direct investment in marine energy (wave, tidal stream and range) in Wales was £45.4M. In 2017, this has risen to £68.3M which represents an increase of over £23M. In 2015, the sector directly supported 36 FTE jobs but this had risen to 137 FTE jobs in 2017. These are direct impacts; the contribution is increased when total gross value effects are included from the wider supply chain. Developers also provided information on their future spending aspirations for the country, with a potential investment of over £1.4Bn over the next 5 years if market and development incentives are in place.*

*This increased spend and the significant rise in jobs created demonstrates the momentum with which the sector is developing in Wales. Clearly, marine energy is fast becoming a dynamic and exciting part of the Welsh economy with associated supply chain and employment benefits set to rise further as more public funding is accessed and used to leverage in private investment. The sector is also assisting in supply chain diversity, clustering and resilience. It is supporting peripheral economies where new innovation is creating jobs in areas that need them the most. It is driving investment into ports and*

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<sup>1</sup> See <https://www.marineenergywales.co.uk/wp-content/uploads/2017/03/Marine-Energy-Wales-Investment-Jobs-Supply-Chain-2017.pdf>.

*infrastructure and linking academia with the private sector. It is also providing Wales with an opportunity to be a global leader in an export market worth an estimated £76Bn by 2050 contributing around £4Bn cumulatively to UK GDP.”*

## OUTLINE SKILLS and TRAINING ACTION PLAN RATIONALE

The purpose of this document is to provide specific actions and dates to build upon the assessment within the Environmental Statement submitted in support of the Morlais project and the mitigation proposed within the Supplementary Socio-economic Assessment prepared by Dr E T Jones of Bangor University. All the information included is based upon the Socio Economic assessment in the Environmental Statement and Dr Jones recommendations in Chapter 3 restated below:-

*“Morlais needs to have skilled workers who have been trained and are able to meet the challenge of rolling-out renewable energy from the sea. The challenge of getting these skilled workers isn’t unique to Morlais; RenewableUK are active in providing industry perspective to Government on the sector’s skills needs to help make sure there is an adequate talent pool of skilled and experienced recruits.<sup>2</sup> To complement its work, RenewableUK published a Skills Manifesto which set out skills policy recommendations from the wind and marine energy industries.<sup>3</sup>*

*Despite the work happening at a UK level, Morlais is determined to maximise the opportunities of a career in tidal energy to local people. To achieve this, it has developed the following action plan that takes into account feedback received from the Regional Skills Manager with North Wales Regional Skills Partnership.*

- 1) Morlais to identify a schedule of work during its development and of its tenants,*
- 2) Morlais to identify what skills will be required to complete this work and at what stage those skills will be required,*
- 3) Work with the North Wales Regional Skills Partnership to identify what skills are available in the area, including what skills will becoming available in the future, and what opportunities there are for people with particular skills,*
- 4) Based on this information, Morlais will identify gaps between the skills it and its tenants require and those available in the area, and when those gaps will occur.*

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<sup>2</sup> See <https://www.renewableuk.com/page/SkillsBase/Preparing-the-Skills-Base-for-Renewables.htm>.

<sup>3</sup> See [https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/Skills\\_Manifesto.pdf](https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/Skills_Manifesto.pdf).

- 5) *Working with the North Wales Regional Skills Partnership, local FE/HE institutions (including providers of work-based apprenticeships), to initiate actions to reduce the skills gap. Such measure could include the offering of new courses or training opportunities.*

*A Training Task Group will be established (as required by Planning Condition) to analyse, anticipate and consistently marshal skills demand, skills and training gaps and agree on actions to reduce them in a timely and consistent manner. **This Group will comprise of Morlais, Isle of Anglesey County Council, North Wales Economic Ambition Board, Grwp Llandrillo Menai and North Wales Regional Skills Partnership, Môn Communities First (Holyhead).**<sup>4</sup> The tenants will be represented in the Group through Morlais.*

*The Training Task Group is a key part of Morlais and its partners' plans to ensure the tidal energy project delivers, and is seen to deliver, benefits for local residents and especially those living closest to the site on Anglesey. The Group will monitor those working for Morlais and its tenants to establish the results of actions to narrow the skills gap and the success of providing opportunities to local people. The Group would also look more broadly than the Morlais project at roles which may be created locally as a result of individuals taking roles on the Morlais project in preference to existing employment. In this respect, the Group is a key mitigation against wider labour market effects as it will be able to look ahead to ensure that, as far as possible, there is a pipeline of suitably qualified and skilled workforce to take up these existing roles thus minimising the socio-economic impacts of the Morlais project. The timelines below describe how Menter Môn Morlais itself, and its Training Task Group will address the challenge of maximising local and regional uptake in employment and approach its aspirational target of 50% local employment across the NVQ profiles. All Training Task Group participants will:-*

- 1) have shared goals to attract, maintain and develop the Group.*
- 2) operate in an open and transparent environment wherever commercial considerations allow.*
- 3) share knowledge, news, opportunities and market intelligence freely between all parts of the respective delivery service.*
- 4) agree to utilise their respective databases to ensure news and opportunities are widely distributed in a wide and timely manner and enable to promote relevant and appropriate business opportunities.*
- 5) meet and communicate regularly, The intention will be to have quarterly meetings to assess progress.*
- 6) Develop a shared communications plan that will*

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<sup>4</sup> Môn Communities First (Holyhead) are invited to be part of this Group to provide local knowledge and ensure actions to reduce the skills gap are relevant and will have the desired action.

- a. *Raise awareness of the project amongst local residents (including people who have left but may want to return home)*
- b. *Ensure there are links with other relevant organisation (such as Careers Wales)*
- c. *Where appropriate help all parties will highlight each other's involvement in events and projects via logos, web links and other appropriate marketing media.*

*Employment opportunities with Morlais and its tenants will be advertised by Morlais on its website and its employment hub (establishment of a database of skilled individuals living on the island (building upon its Shaping the Future database (2010– 15)), and through other local channels. Similarly a supply chain portal will be established to communicate consistently with the island's numerous fabrication, technology and marine services businesses."*

We have included below a more detailed view of what Morlais expects its Skills and Training challenges to be, based upon an indicative 100MW of output by 2032. Achieving this will be dependent upon two known component variables, currently with unknown values:-

#### A. Extent of Consent

This has two subcomponents which will determine how the Morlais zone is set up (whether there is a 15MW installation or a 30MW startup) at commencement and how rapidly it is then consented to grow (this in turn dependent upon successful monitoring of interactions)

#### B. Revenue Support

There is currently no revenue support mechanism available for the tidal stream industry. Presence or absence of revenue support will have a direct effect on the speed of development of the zone.

In terms of skills analysis and demand, Construction and Operational phases are broken into two key phases of analysis in the timelines in Tables A and B. The creation of jobs, particularly higher value technology-oriented jobs, is a key driver for regional economic development and a key reason why tidal stream energy has been supported at local, national and international levels. There are however many challenges involved in estimating the numbers of jobs that may be created by any project and in establishing where these jobs may arise geographically. This assessment has used the experience of the chapter authors of the Morlais Socio Economic Impact assessment, gleaned from over 15 years of work in the tidal energy sector, coupled with the phasing/development scenarios used as the basis of this assessment, to predict possible job demand forecasts in the form of both numbers and location. With respect to this Outline Skills and Training Action Plan, the Project job types have been categorised into:

- Manufacturing;
- Foundations and Installation; and

- Cabling and Infrastructure; and
- Operation.

Within these broad categories, the exact types of jobs that will be created, and the skills required to fulfil them, are difficult to accurately estimate at this juncture due to them being specific to the contractors and technology providers who will undertake the construction of the project.

However, this Outline Skills and Training Action Plan will provide the syllabus for the Morlais Skills and Training Task Group as it marshals through project life.

The Economic Impact of the Development of Marine Energy in Wales report produced on behalf Welsh Government (Regeneris, 2013) has also been utilised as it provides a useful categorisation of potential jobs via “job groups” – (within Appendices D1 and D2) and will provide the basis for the analyses described in the timelines in Tables A and B which will be subject to continuous monitoring and action.

## THE IMPORTANCE OF THE SUPPLY CHAIN

Over the past four years the Minesto company has been assembling and testing two prototype turbines in Holyhead. Their experience provides an evidence base for the huge opportunities which Morlais’ turbine developers could bring to the island’s engineering and marine services community.

In October 2019, well in advance of deployment at Morlais, the Faun Trackway company in Llangefni was awarded a substantial contract to manufacture anchor components for the Orbital turbine – see <https://fauntrackway.co.uk/latest-news/2019/press-release>

This provides further evidence of the confidence of technology businesses in the fabrication service offer on Anglesey (the legacy of nuclear and Anglesey Aluminium industries on the island)

Following the success of Gwynedd County Council ‘Cadw’r Budd yn Lleol’ procurement strategy, Morlais intends to incorporate similar actions within their Skills and Training Action Plan to ensure the benefits of the supply chain are maximised for local businesses.<sup>5</sup> ‘Cadw’r Budd yn Lleol’ ensured businesses were able to tender for work with the authority but also allowed business to tender for work with other institutions and companies. The Supply Chain Action Plan will therefore include the following commitments:

- 1) A regular review of work (as shown in Table D) that Morlais and its tenants could tender out, including any specific credentials (e.g. ISO) needed to complete the work.

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<sup>5</sup> See

<https://democratiaeth.gwynedd.llyw.cymru/documents/s2497/Strategaeth%20Caffael%20Cyngor%20Gwynedd%20-%20Rheolaeth%20Categori%20a%20Chadwr%20Budd%20yn%20Lleol.pdf?LLL=1>.



- 2) Advertisement (as shown in Table D) of work that is tendered out including the specific credentials needed to complete the work and, where possible, future work that could come.
- 3) Establishment of a fund to support businesses that need to obtain specific credentials which would allow them to tender for work with Morlais and its tenants;
  - a. Gwynedd County Council provided funding to pay for consultants to work with the business or businesses to gain the required credentials. However, it was then the responsibility of the business to be audited by the appropriate institution to obtain the final credentials.

This fund would only be open to businesses on Anglesey.

- 4) Hold Meet the Buyers events and working groups to determine what credentials businesses are currently missing which would hinder them from tendering for work with Morlais and its tenants.
- 5) In March 2020, Morlais, via the Selkie project (details below), held its first Meet the Buyer event and was delighted to host 60 local businesses who have signed up as supply partners to Morlais. This was seen as the first stage of a regularly scheduled series of events to inform and assist the local supply chain, and to ensure that it derives maximum benefit from emerging works in a wide variety of fields related to Morlais.

The procedures for ensuring tenant engagement, and local supply chain community engagement, in advance notice of tendering and skill and credential demands are included in Table D. Monitoring and reporting of the success of the Action Plan are also specified in the last row of Table D, specifying quarterly meetings with IOACC to the end of 2025 (but also beyond) which have the following purposes

- a. Continuous review of local supply chain update data.
- b. Performance of the local supply chain in meeting demands
- c. Assess actions undertaken and to be undertaken to continuously improve uptake and performance of the local supply chain via the Training Task Group and Menter Mon Morlais own actions.

## MAIN FEATURES OF OUR PLAN

The estimates provided for local jobs in Table C below are taken from the assessment upon Socio Economics within the ES. Menter Mon Morlais has added Targets to this estimate for each phase, in order to further clarify their intentions to achieve these benefits. This will be achieved through:

- a. Establish and administer the Multi Party Training Task Group (see Planning Condition 18) which will analyse, anticipate, identify funding and implement new training plans

- b. Establish a Local Skills Database and Employment Hub run by Menter Mon Morlais which will build on NVQ levels 4 and 5 database in our possession following the Shaping the Future project of 2012-15 following the fall in employment at the start of decommissioning at Wylfa A.
- c. Establish a Supply Chain portal which will communicate constantly with a wide range of known engineering, fabrication, technology, marine services and environmental companies on the island.

All of these component establishments will operate consistently throughout the lifetime of the Project, though shown in this plan only up to 2032.

## ACTION PLAN TIMELINE AND COMPONENTS

The remainder of this Outline Skills and Training Action Plan describes broadly the jobs / skills required at different stages of Morlais, from preparatory through construction to operation.

It has been noted that the figures given assume a 100MW output from the zone by 2032, but we have to underline its indicative nature as a target scenario. We have identified the dependencies which will determine the output. They are the same dependencies which will determine the numbers of skills required to fulfil the demands of the industry.

For the purposes of this action plan, we are assuming a median position in 2032 of 100MW; reached from a starting point of 20MW in 2024. If other dynamics emerge which speed up or slow down this median position, quantities can be divided or multiplied accordingly. The Outline Skills and Training Action Plan's components and analyses remain – it is their intensity which will rise or fall according to the Morlais Growth Profile.

There are four Timelines described below; one for each of the following Action Plan components

- a) Pre-CONSTRUCTION, INFRASTRUCTURE CONSTRUCTION AND INSTALLATIONS UP TO 2023
- b) OPERATIONAL PHASE 2024 TO 2032
- c) JOBS PROFILE AND PARTNERSHIP
- d) SUPPLY CHAIN
- e) A LIST OF REQUIRED SKILLS AND THE BROAD INTENSITY OF DEMAND THROUGH PHASES

Whereas a, b and d are primarily concerned with the gathering, processing and interpretation of data arising from the skills demand side of the training equation, **c describes how we will work with**



**partners to secure local supply targets to meet the demand, and actions required to ensure it is locally met.**

All strategies require aspirational targets. In Morlais' case it is difficult to specify the targets because of the unknowns harbouring in dependencies. However, it must be understood that Menter Môn applied for the Crown Lease for the West Anglesey Demonstration Zone with the sole purpose of maximizing local benefit in a manner unlikely to be achieved by others. We aspire to ensure that 50% of the workforce is drawn primarily from the Ynys Môn area and must therefore take this Outline Skills and Training Action Plan seriously and see it through. Morlais has set a target of 30% of employment being derived locally, which is double the estimate in the ES. Success for Menter Môn when it views the Morlais project will carry one overriding Performance Indicator, beyond megawatts and investments; it will be:

**How many of the jobs went to local people – how well did we do in exceeding expectations?  
How many careers have been enabled in the local area?**

It is of note that local means Ynys Môn. The Socio-economic assessment in the ES stated that Ynys Môn is the best educated local authority in Wales in terms of its inhabitants NVQ profiles. As other traditional industries wane, tidal energy will emerge to provide opportunities for local people. It is Morlais' intention to proactively facilitate and secure the optimum.

[illegible]



|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Assess local availability of skill sets   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Plan and deliver term training provision to address gaps  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Agree, monitor and review recruitment strategy with turbine deployers.                                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Marshalling, Amending and Reporting Local Recruitment actions and performance; Consultations with IOACC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Table A – Skills and Training Plan Actions for the Pre-Construction, Infrastructure Construction and First Turbine Deployments Phase**

|   | 2022 | 2022 | 2022 | 2022 | 2023 | 2023                            | 2023 | 2023                              | 2024   | 2024                             | 2024 | 2024 | 2025 | 2025 | 2025 | 2025 |
|---|------|------|------|------|------|---------------------------------|------|-----------------------------------|--|----------------------------------|------|------|------|------|------|------|
|   | Q1   | Q2   | Q3   | Q4   | Q1   | Q2                              | Q3   | Q4                                | Q1   | Q2                               | Q3   | Q4   | Q1   | Q2   | Q3   | Q4   |
| Operational Phase Milestones  |      |      |      |      |      |                                 |      | Completion of Power plant testing | First 5MW installed  | 10MW installed<br>15MW installed |      |      |      |      |      |      |
| Production and Morlais Zone operational period  |      |      |      |      |      |                                 |      |                                   |  |                                  |      |      |      |      |      |      |
| Job skill demand profile for first six years of operation produced and implemented by Task Group  |      |      |      |      |      |                                 |      |                                   | In our phase example in the Socio-economic Impact submission, we have estimated 30% of the operational phase employment will accrue 256 FTE jobs by 2032. We will target 427 FTE (50%) by utilising the proactive approach defined in this action plan |                                  |      |      |      |      |      |      |
| Assess local availability of skill sets   |      |      |      |      |      | Continuous from Table A         |      |                                   | Continuous throughout operational period TO 2032.  |                                  |      |      |      |      |      |      |
|   |      |      |      |      |      | In tandem with Table A activity |      |                                   |  |                                  |      |      |      |      |      |      |
| Plan and deliver term training provision to address short and long term local supply of skilled and qualified individuals                       |      |      |      |      |      | Continuous from Table A         |      |                                   | Continuous throughout operational period TO 2032   |                                  |      |      |      |      |      |      |
|   |      |      |      |      |      | In tandem with Table A activity |      |                                   |  |                                  |      |      |      |      |      |      |
| Agree, monitor and review recruitment strategy with turbine deployers; to include funding, apprenticeships etc                                  |      |      |      |      |      | Continuous from Table A         |      |                                   |  |                                  |      |      |      |      |      |      |
|   |      |      |      |      |      | In tandem with Table A activity |      |                                   |  |                                  |      |      |      |      |      |      |
| Marshalling, Amending and Reporting Local Recruitment Actions and performance through the operational period. Periodic consultations with IOACC |      |      |      |      |      |                                 |      |                                   |  |                                  |      |      |      |      |      |      |

**Table B – Skills and Training Plan Actions for the Operational phase**



| PHASES              | Installed capacity | Phase Completion | Total Jobs /FTEyrs | Jobs /yr FTE/yr | Total Construction / Deployment<br>FTE/yr |                                    |                                   | Total for<br>Wales<br>FTE/yr | Total for<br>Region<br>FTE/yr | Total Anglesey LOCAL<br>FTE/yr                                |
|---------------------|--------------------|------------------|--------------------|-----------------|---|------------------------------------|-----------------------------------|------------------------------|-------------------------------|---|
| <b>MEDIUM CASE</b>  |                    |                  |                    |                 | <i>Turbine assembly</i>                   | <i>Foundation<br/>Installation</i> | <i>Cabling<br/>Infrastructure</i> | <b>40%</b>                   | <b>25%</b>                    | <b>ESTIMATED 15- 22%</b><br><br><b>TARGETTING 30% BY 2032</b> |
| Phase example 100MW | 100MW              | 2032             | 1200               | 400             | 200                                       | 120                                | 80                                | 160                          | 100                           | <b>ESTIMATED 60 - 88</b><br><br><b>TARGETTING 120 BY 2032</b> |

|   | 2020<br>Q1                                       | 2020<br>Q2 | 2020<br>Q3 | 2020<br>Q4 | 2021<br>Q1 | 2021<br>Q2 | 2021<br>Q3               | 2021<br>Q4  | 2022<br>Q1 | 2022<br>Q2 | 2022<br>Q3 | 2022<br>Q4              | 2023<br>Q1                              | 2023<br>Q2 | 2023<br>Q3                | 2023<br>Q4 |
|---|--|------------|------------|------------|------------|------------|--------------------------|---|------------|------------|------------|-------------------------|---|------------|---------------------------|------------|
| <b>Consent milestones</b>                                     | TWAQ<br>Marine Licence                           |            |            |            |            |            | Consent<br>conditions    |   |            |            |            |                         |   |            |                           |            |
| <b>Infrastructure Construction milestones</b>                 | Pre contract specifications<br>and documentation |            |            |            |            |            | Contract<br>negotiations | Infrastructure contract commences<br><br>Infrastructure completed |            |            |            |                         |   |            |                           |            |
| <b>Marine Deployment milestones</b>                           |  |            |            |            |            |            |                          | First developers contracts negotiated                             |            |            |            | Onshore<br>preparations | First installations<br>works undertaken |            | Deployment<br>preparation |            |
| <b>Assemble Training Task Group</b>                           |  |            |            |            |            |            |                          |   |            |            |            |                         |   |            |                           |            |
| <b>Set local employment parameters for<br/>period to 2032</b> |  |            |            |            |            |            |                          |   |            |            |            |                         |   |            |                           |            |



|   |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
|---|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Undertake local skill sets analysis across job types for Construction phase                                 |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
| Deliver short term training provision to address immediate requirement for Construction NVQ 2-3             |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
| Undertake local skill sets analysis across job types for Operational phase                                  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
| Deliver longer term training provision to address short and midterm requirement for Construction NVQ 3 to 5 |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
| Deliver Schools and Colleges awareness programme  |  |  |  |  |   |   |   |   |   |   |   |   |   |   |   |   |
| Scheduled meetings of the Task Group  |  |  |  |  | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 1 |
| Morlais reporting of Local Skills and Training progress; including specific consultations with IOACC        |  |  |  |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Table C Construction/Installation phase job estimates for 100MW by 2032 and Task Group Partnership milestones**



|  | PRIOR<br>TO<br>2022 | 2022<br>Q1 | 2022<br>Q2 | 2022<br>Q3 | 2022<br>Q4 | 2023<br>Q1 | 2023<br>Q2  | 2023<br>Q3 | 2023<br>Q4 | 2024<br>Q1                                 | 2024<br>Q2             | 2024<br>Q3        | 2024<br>Q4     | 2025<br>Q1 | 2025<br>Q2 | 2025<br>Q3 | 2025<br>Q4 |
|--|---------------------|------------|------------|------------|------------|------------|---|------------|------------|--|------------------------|-------------------|----------------|------------|------------|------------|------------|
| Operational Phase Milestones   |                     |            |            |            |            |            |   |            |            | Completion<br>of Power<br>plant<br>testing | First 5MW<br>installed | 10MW<br>installed | 15MW installed |            |            |            |            |
| Production and Morlais Zone<br>operational period  |                     |            |            |            |            |            |   |            |            |  |                        |                   |                |            |            |            |            |
| Job skill demand profile for first six<br>years of operation produced and<br>implemented by Task Group   |                     |            |            |            |            |            | The Morlais Socio Economic Impact submission uses accepted formulae to measure supply chain contributions. Induced impact via the supply chain is estimated at 18.7% of combined direct and indirect impacts arising from construction and operational phases. Morlais, through its proactive supply chain programme set pout in this table, will seek to increase this figure to 25% |            |            |  |                        |                   |                |            |            |            |            |
| Set parameters with turbine<br>developers re local supply chain<br>uptake and Morlais expectations and<br>procedures to continuously forecast<br>and assess work for local tendering | 3                   |            |            |            |            |            |   |            |            |  |                        |                   |                |            |            |            |            |
| Regular quarterly Meetings with<br>Turbine Developers to formalise<br>continuous advance identification of<br>supply tenders, supply specification<br>credentials and skills demand. |                     | 1          | 1          | 1          | 1          | 1          | 1   | 1          | 1          | 1  | 1                      | 1                 | 1              | 1          | 1          | 1          | 1          |
| Advertisement of work direct to the<br>registered local supply chain<br>community via the Morlais supply<br>portal from Q2 2022 and local and<br>regional press                      |                     |            |            |            |            |            |   |            |            |  |                        |                   |                |            |            |            |            |





|   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Supply chain registrations period for local and regional companies  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Supply chain events   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Establish Morlais Supply Chain Portal   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Publication of Operational phase O and M contractor requirements and qualification expectations                                       |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Analysis of Local Supply Chain training requirements  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Funding for Local Supply Chain Training requirements  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sourcing and implementation of providers to meet contractors' training needs  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Review periods  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Reporting periods for supply chain uptake, including consultations, performance review and continuous improvement measures with IOACC |  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

**Table D Supply Chain Actions and Milestones**



| CONSTRUCTION<br>/INSTALLATION |  |  |  | OPERATIONAL<br>O&M |  |  |  | SUPPLY CHAIN |  |  |  |  |
|-------------------------------|--|--|--|--------------------|--|--|--|--------------|--|--|--|--|
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 1 Concrete and non-metal products:</li> </ul> <p>SEE FULL LISTS BELOW</p>                      |
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 2 Activity related to metal/metal structure production:</li> </ul> <p>SEE FULL LISTS BELOW</p> |
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 3 Activity related to electrical electronic industries:</li> </ul> <p>SEE FULL LISTS BELOW</p> |
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 4 Other machinery and products:</li> </ul> <p>SEE FULL LISTS BELOW</p>                         |
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 5 Construction and installation jobs:</li> </ul> <p>SEE FULL LISTS BELOW</p>                   |
|                               |  |  |  |                    |  |  |  |              |  |  |  | <ul style="list-style-type: none"> <li>•Group 5 Service jobs:</li> </ul> <p>SEE FULL LISTS BELOW</p>   |
|                               |  |  |  |                    |  |  |  |              |  |  |  | Marine Services  |



#### Manufacturing jobs (Manufacturing)

##### •Group 1 Concrete and non-metal products:

- o(23430) - Manufacture of ceramic insulators and insulating fittings;
- o(23610) – Manufacture of concrete products for construction purposes.

##### •Group 2 Activity related to metal/metal structure production:

- o(24200) - Manufacture of tubes, pipes, hollow profiles and related fittings, of steel;
- o(24510) - Casting of iron;
- o(24520) - Casting of steel;
- o(24530) - Casting of light metal;
- o(24540) - Casting of other non-ferrous metals;
- o(25110) - Manufacture of metal structures and parts of structures;
- o(25290) - Manufacture of other tanks, reservoirs and containers of metal;
- o(25500) - Forging, pressing, stamping and roll-forming of metal and powdermetallurgy;
- o(25610) - Treatment and coating of metals;
- o(25910) - Manufacture of steel drums and similar containers and
- o(25990) - Manufacture of other fabricated metal products.

##### •Group 3 Activity related to electrical electronic industries:

- o(26110) - Manufacture of electronic components;
- o(26511) - Manufacture of electronic instruments and appliances for measuring, testing, and navigation, except industrial process control equipment;
- o(26512) - Manufacture of electronic industrial process control equipment;
- o(27110) - Manufacture of electric motors, generators and transformers;
- o(27120) - Manufacture of electricity distribution and control apparatus;
- o(27320) - Manufacture of other electronic and electric wires and cables

##### •Group 4 Other machinery and products:

- o(28131) - Manufacture of pumps;
- o(28140) - Manufacture of other taps and valves;
- o(28150) - Manufacture of bearings, gears, gearing and driving elements and
- o(30110) - Building of ships and floating structures.

#### Non-manufacturing jobs (Foundations and Installation, Cabling and Infrastructure and Operation)

##### •Group 5 Construction and installation jobs:

- o(33150) - Repair and maintenance of ships and boats;
- o(33200) - Installation of industrial machinery and equipment;
- o(42220) - Construction of utility projects for electricity and telecommunications;
- o(42990) - Construction of other civil engineering projects;
- o(43130) - Test drilling and boring;
- o(43210) - Electrical installation;
- o(50200) - Sea and coastal freight water transport; and
- o(52101) - Operation of warehousing and storage facilities for water transport activities.



- Group 5 Service jobs:
  - o(65120) - Non-life insurance;
  - o(70210) - Public relations and communication activities;
  - o(70229) - Management consultancy activities (other than financial management);
  - o(73110) - Advertising agencies;
  - o(73120) - Media representation;
  - o(71121) - Engineering design activities for industrial process and production;
  - o(71122) - Engineering related scientific and technical consulting activities;
  - o(71200) - Technical testing and analysis;
  - o(74901) - Environmental consulting activities;
  - o(74902) - Quantity surveying activities;
  - o(77320) – Renting and leasing of construction and civil engineering machinery and equipment;
  - o(77342) - Renting and leasing of freight water transport equipment;
  - o(77390) - Renting and leasing of other machinery, equipment and tangible goods;
  - o(80200) - Security systems service activities.
- Finance and Administration

**Table E Specification of skill requirements and broad intensity of demand for phases and supply chain uptake**