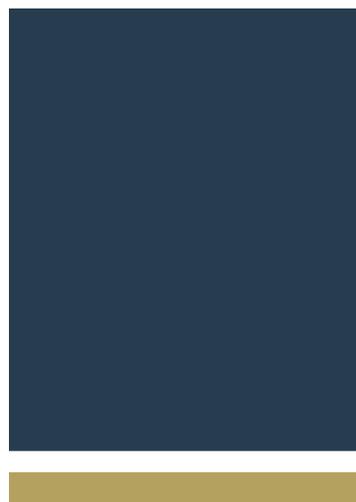
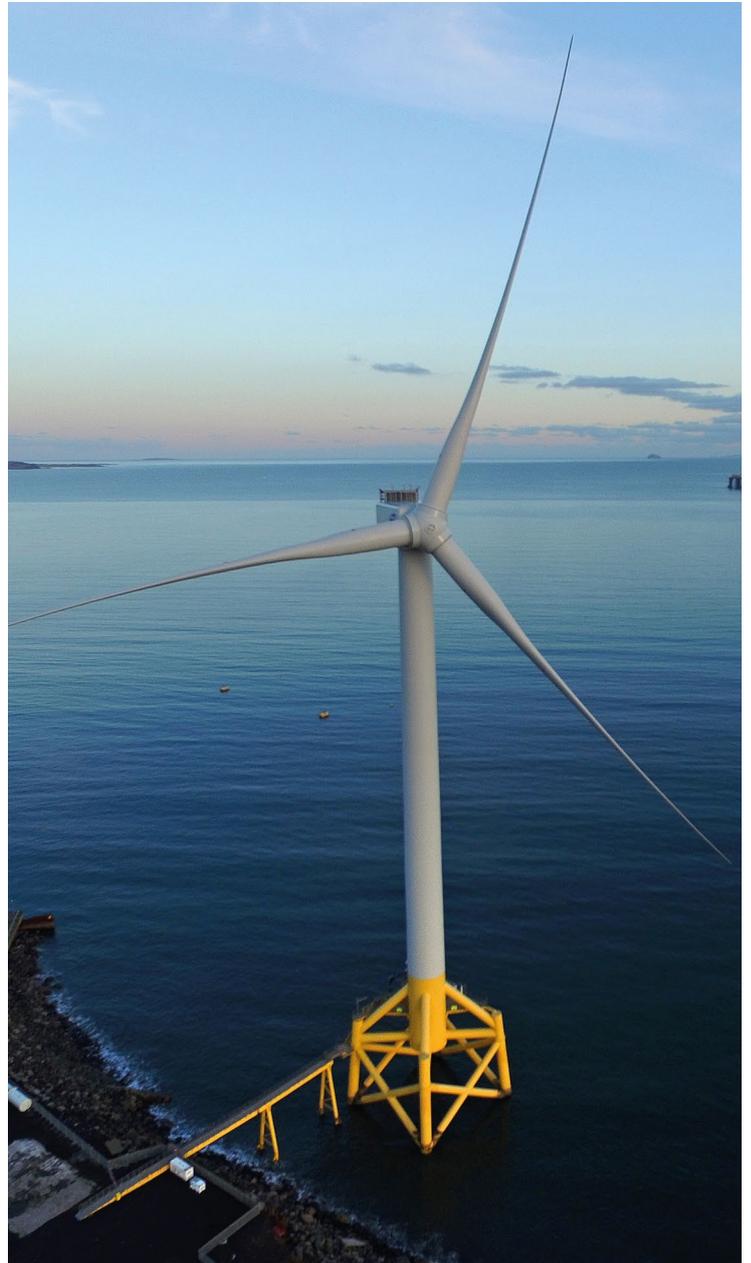


# UK OFFSHORE WIND INDUSTRY: OPERATIONAL CONTINGENCY PLANNING GROUP

REPORT OF INDUSTRY  
SURVEY RESULTS

JUNE 2020



# INTRODUCTION

In response to the COVID-19 crisis, ORE Catapult's O&M Centre of Excellence (OMCE) established the Operational Contingency Planning Group, bringing together key members of the UK Offshore Wind industry to support practical collaboration and action for short to medium-term challenges and impact.

ORE Catapult is the UK's flagship innovation and research centre for offshore renewables, playing a key role in de-risking the technology innovations for the sector. Over the past 7 years ORE Catapult has worked closely with industry to enable transformational change, increase UK company content in the supply chain, and reduce the Levelised Cost of Energy (LCoE) of the offshore renewable industry. Since the impacts of the COVID-19 pandemic have been felt widely across the industry, ORE Catapult is in position to play a leading role in the sector's response to the challenges.

## Operational Contingency Planning Group

ORE Catapult's O&M Centre of Excellence has established the Operational Contingency Planning Group (OCPG hereafter), attended by Renewable UK, G+ Global Offshore Wind Health and Safety Organisation, and the Workboat Association to capture the COVID-19 related challenges and issues affecting the industry, now and in the short to medium term. The forum enables ORE Catapult to provide a single point of contact between the breadth of the UK offshore wind supply chain and Government, helping to identify where support is required, and how that support could be implemented in order to optimise business continuity.

The OCGP remains active and meets on a regular call. To find out more, or join the call, please contact:

> [stuart.barnes@ore.catapult.org.uk](mailto:stuart.barnes@ore.catapult.org.uk)

## Industry Survey

The OCPG set out to identify the common challenges and to represent the industry's response to Government. As a result, ORE Catapult released a survey designed to identify the practical challenges and impact that the industry is facing due to the COVID-19 pandemic in the following areas:

- // Business continuity, operations and production impact
- // Reduced scopes of work, business continuity, medium-to-long term impact and business sustainability
- // Supply chain resilience and sustainability

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# EXECUTIVE SUMMARY

**ORE Catapult has undertaken a survey of members, complemented by other forms of information gathering, to help develop a better understanding of the issues and challenges being experienced by industry as it seeks to maintain business continuity and mitigate the impact of COVID-19.**

The aim is to target support for the sector by mapping challenges and enabling a collaborative approach to identifying and addressing risks and challenges before they become issues.

Where issues are already being experienced by the UK offshore wind industry, the ongoing collection of information to understand these issues and coordinate responses can help drive rapid action and speed up the identification and implementation of solutions (see example of CTV Innovation Case Study on P.8).

The survey was sent to around 90 members of the OCPG and received 20 responses, representing many different sub-sectors across the offshore wind industry including Developers, Independent Service Providers, CTV and SOV Operators, Port Authorities, Training Providers and Trade Associations.

The survey findings suggest that there are various challenges and issues being faced as organisations seek to adapt quickly to an ever-changing landscape. Different tiers of the offshore wind supply chain are experiencing different operational challenges.

Most are particularly challenged by difficulties in moving people within and between countries to undertake operations, and support with easing transport restrictions is essential to support continued operations.

In the short-term it appears that scopes of works on many wind farms have been reduced to repair only, with routine maintenance and inspection work largely deferred. These reduced works are not thought to have caused an immediate, significant impact on Annual Energy Production though there are questions, and a mix of views, as to the impact in the medium to long-term.

Similarly, the challenges associated with undertaking training and routine inspection raises questions about operational impacts in the medium to long term as qualifications lapse and this temporarily reduces the pool of technicians with current qualifications.

Meanwhile, there are many examples reported of organisations seeking clearer guidance and calling for financial support to help the supply chain weather the storm and manage a period of uncertainty in order to ensure the resilience of the UK supply chain.

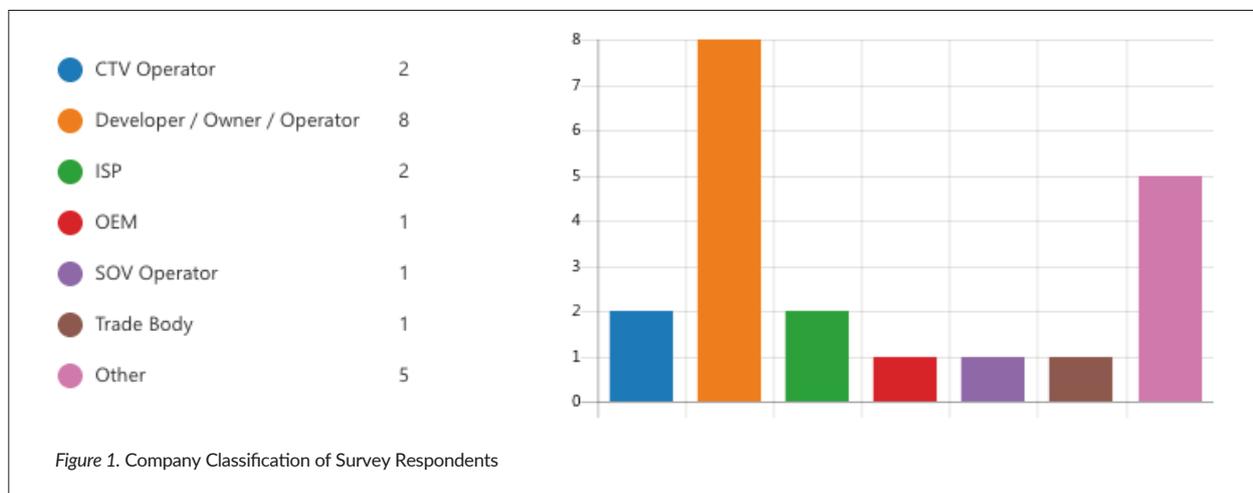
The findings of the report represent the views of a sample of organisations and the call for action a 'snapshot in time'. Naturally, as the macro business environment changes and the economy moves into a post-COVID recovery phase both in the UK and internationally, there will be emergent and changing challenges.

ORE Catapult is working closely with Industry, representative groups and Government to help raise the importance of challenges and impacts identified through the findings of this report and will continue to work with members of the OCPG to monitor and map issues and challenges.

The OCPG will continue to provide a forum to encourage and support coordination and collaboration between industry, government and other stakeholders to ensure that the UK's offshore wind industry is well prepared for a strong post-crisis recovery and continued operational resilience.

# SURVEY OBJECTIVES & METHODOLOGY

The UK Offshore Wind industry's Operations and Maintenance sector is made up of a diverse supply chain, including Vessel Operators (SOVs/CTVs), Developers, Owner Operators, Independent Service Providers, Original Equipment Manufacturers, Trade Bodies and a range of other suppliers who have a complex assortment of specific challenges that will affect business continuity over the coming months due to the COVID-19 Pandemic.



The survey consisted of 21 open form questions (see Appendix 1.0) aimed at gaining as much intelligence as possible from key industry and supply chain members regarding the present situation and those challenges anticipated over the next 9 months.

There were 2 multiple-choice questions with predefined answers offering respondents the opportunity to suggest when they anticipated the impact of certain constraints may begin to be felt, or indeed if it was unlikely to be an issue for the industry. There was a final multiple-choice question that focused on the ability to maintain safe distancing between colleagues during the performance of various turbine and vessel-based tasks and procedures required to undertake 'normal' O&M turbine and marine operations.

The average time respondents took to complete the questionnaire was approximately 60 mins. The survey was sent to all members of the OCPG and received 20 responses, representing all classifications working across the industry. The information was collected over the period April-May 2020.

The 'Other' respondents included: High Voltage Specialists – Supply Chain, UAS Inspection Service Provider, Port Authority, Independent Third-Party Verification and Inspection Services, and a Training Provider.

## Companies that participated in the survey:

- > The Workboat Association
- > EDSHV
- > Aerial Vision
- > Windcat Work Boats
- > Parkwind
- > SSE
- > Aberdeen Harbour
- > Worley
- > Reflex Marine
- > Tidal-Transit
- > IVBITD
- > Maersk Training
- > Innogy
- > RWE
- > GEV Group
- > Bibby Marine Services

*Nb.* Some responses were provided by more than one individual per company

# SURVEY RESULTS SNAPSHOT

The initial questions looked to gain an indication of what the industry felt were the key challenges that would emerge over the next 3, 6 and 9 months, before providing specific examples of issues/challenges later in the questionnaire. The open form results for these questions were collated to identify common themes.

## Key Challenge Themes

First 3 months // April - June 2020



- Travel restrictions • Training expiration • Staff Furlough • Health and Safety
- Due certifications • Social Distancing • PPE

3 to 6 months // July - September 2020



- Maintenance • Supply Chain Availability • Delays • Work • Financial
- Operations & Maintenance • Incidents & Accidents

9 months+ // December 2020 onwards



- Major Maintenance • Supply Chain • Financial Challenges • Delayed works
- Failures/increased downtime • Travel restrictions

### 3 Months

"International Travel for Seafarers being unavailable, COVID-19 tests not available to Seafarers ready to travel (required to enter some countries)"

"...the limited inspection weather window remaining in the year may result in a demand that cannot be met or a deferral of the 2020 inspection into 2021. Revenue for 2020 likely to be ZERO"

### 6 Months

"A pressure to catch up with lost time commercially, added to self-applied pressure to work harder will inevitably cause incidents and accidents"

"Supply chain liquidity bearing in mind that most SMEs will be exhausting cash reserves to fund losses during the current lockdown and will then have to fund working capital as work starts."

### 9 Months

"Difficulty in replacing SMEs in the O&M/Supply Chain, meaning that owner/operators will not have a fully operational supply chain."

# BUSINESS CONTINUITY & OPERATIONAL IMPACT

In business continuity, the survey was designed to identify the specific challenges and their impacts by May, August, and September (onwards) respectively.

## Quantitative Analysis - Personnel Challenges and Impacts on Turbine Availability

The following questions were geared to getting an understanding of where specific issues were being felt across the industry now, or if not now, when they would emerge. With survey respondents representing a wide range of industry perspectives, there was variation from individual companies regarding the effects that were being felt. The charts below indicate the diverse nature of the industry, and importantly that for the issues presented, all are present to some extent within the supply chain now.

The Question asked was: "Are any of the following likely to have an impact on business continuity to the point where turbine availability is reduced, and in what time frame?"

From Figure 2 key issues that are already impacting on business continuity and turbine availability include Monitoring Staff Health, Moving, and Deploying Staff. The lack of testing equipment available before transiting to work sites means that there is an additional risk that crew and personnel required for offshore operations may be exposed to the virus. The challenges with regards to moving staff and deploying them to site have been captured within the survey responses, with travel restrictions due to COVID being a major challenge that will impact available workforce.

Between now and mid-June, the responses indicate that the currency of staff certifications, when refresher courses are normally carried out will have an impact on the availability of staff. The monitoring of available resource is anticipated to continue to be problematic over the rest of the summer season with staff expected to be going through multiple stages of self-isolation.

By mid-September, the currency of staff certification is likely to make finding

correctly qualified staff to carry out specialist tasks more of a challenge if there is no movement to allow technicians to refresh their certificates. The additional impact could be a permanent loss of some of the highly skilled workforce as they could be forced to move to other sectors to find work.

## Quantitative Analysis - Impact on business continuity

Having taken a close look at personnel and movement of staff, the survey wished to gain insight on the challenges that would impact turbine availability in wider operational areas.

The Question asked was: "Which of the following is likely to have an impact on business continuity to the point where turbine availability is reduced?"

Figure 3 shows the timeline associated with when impacts will be felt on Business Continuity. Supply chain shortages are already an issue, with many suppliers under financial pressure and having to release some of their staff to furlough. At 3 months, reduced maintenance scope, and vessel availability begin to add pressure to the industry. Reducing statutory inspections, and servicing scopes to a minimum, increases the risk of failures occurring.

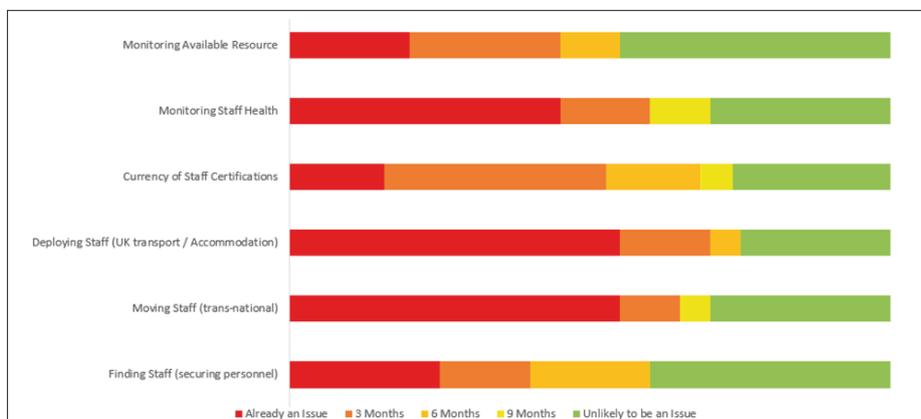


Figure 2. "Are any of the following likely to have an impact on business continuity to the point where turbine availability is reduced, and in what time frame?"

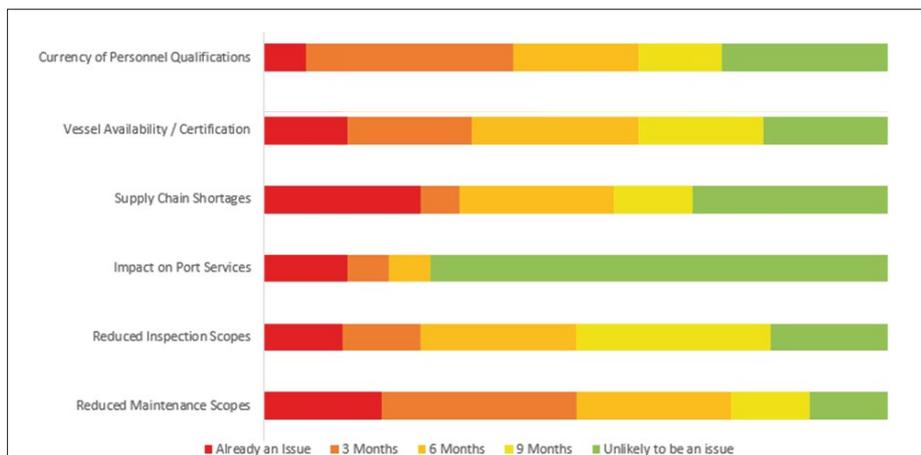


Figure 3. "Which of the following is likely to have an impact on business continuity to the point where turbine availability is reduced?"

At 6 months, the survey responses indicate that the whole industry will be impacted by reduced inspection and maintenance scopes of work, supply chain shortages and vessel availability/certification. The general trend continues at 9 months.

### Reduced scopes of work, medium to long-term impact and sustainability

The responses from the questionnaire indicate changes have taken place in terms of scopes of work. The maintenance operations have been reduced to urgent only with trouble shooting and defect rectification taking priority over scheduled servicing. This infers that minimising turbine downtime where possible in the short term is achievable.

Respondents indicated that Annual Servicing has been reduced to critical and essential statutory inspections only, with travel restrictions minimising work being performed.

In order to maintain social distancing vessels are using smaller crews and personnel on board, which has an impact on the variety or work operations that could take place on assets. Safety first, and common-sense procedures to keep staff protected has been widespread. These include, where possible, staff working remotely and online meetings.

**“For the 6-week lockdown period (currently) we have fallen back to doing defect response only, and only ad-hoc when access is guaranteed. All contract work packages have been suspended for 2020 until further notice.”**

**“A process and criteria set have been established and agreed by all teams across site to define what is considered as critical work scope. These tasks are considered and justified on a case-by-case basis.”**

## CASE STUDY

### CTV Innovation Challenge

A major challenge identified by members of the OCPG was a requirement to find a solution to increase the physical separation of technicians in the confined spaces of offshore crew transfer vessels (CTVs) during the COVID-19 pandemic.

Social distancing measures due to COVID-19 have been forcing some operators to limit CTV operations to a maximum of four passengers, a considerable reduction from the usual 12 or 24. This impacts the amount of work that can be undertaken on a wind farm, affecting jobs and ultimately energy production.

In response, the OMCE worked with the Knowledge Transfer Network (KTN), offshore wind health and safety group G+ and the Workboat Association to set up a cross-sector CTV innovation challenge in search of a rapid solution, such as a partition, that can be deployed onboard the vessels and allow an increase in passenger and crew numbers.



**This challenge closes on 12<sup>th</sup> June 2020**  
**For more information, please visit:**  
 > [ktninnovationexchange.co.uk/challenges](https://ktninnovationexchange.co.uk/challenges)

# SUPPLY CHAIN RESILIENCE & SUSTAINABILITY

With the widespread impacts of COVID-19 across the industry, the survey asked respondents to identify “Where are you seeing increases in costs?”

Responses were varied but key themes were repeated. Increasing costs currently being identified across the industry include:

- // PPE
- // Travel - increasing logistics, no flights
- // Moving parts
- // Accommodation - limited options
- // Logistics for having smaller teams
- // Increasing number of CTVs required for smaller teams
- // Increasing medical personnel on board vessels

In addition to increasing costs, a reduction in value for money has been noted by respondents who are keeping technicians either on retainer or working from home.

Respondents indicated that the additional costs are being carried by each individual party currently in lieu of commercial settlements.

## Financial Risk and Sustainability

The survey asked the question of respondents: What assessment of financial risk has been carried out regarding the present situation?

For the most part respondents indicated that loss of revenue is being tracked through regular budget updates, and risks related to cash flow are continuously monitored. For many respondents, cash flow is a significant concern with one respondent indicating that the complete failure of the 2020 inspection season will result in their liquidation.

## Supply Chain

Following on from financial risk, the survey asked respondents “Is it your understanding that the financial risks are being carried by Developers / Tier 1 suppliers, or are the additional risks being carried further down the supply chain?”

Most responses felt like the financial risk was being shared across the supply chain, though some indicated that most of the risk could sit with Developers.

With the risk being carried across the supply chain, there was doubt over the sustainability of lower tier supply chain members. The survey asked, “Will Tier 3 and 4 Supply Chain members have the resilience to survive with a limited scope of work and greater risk associated with operations?”

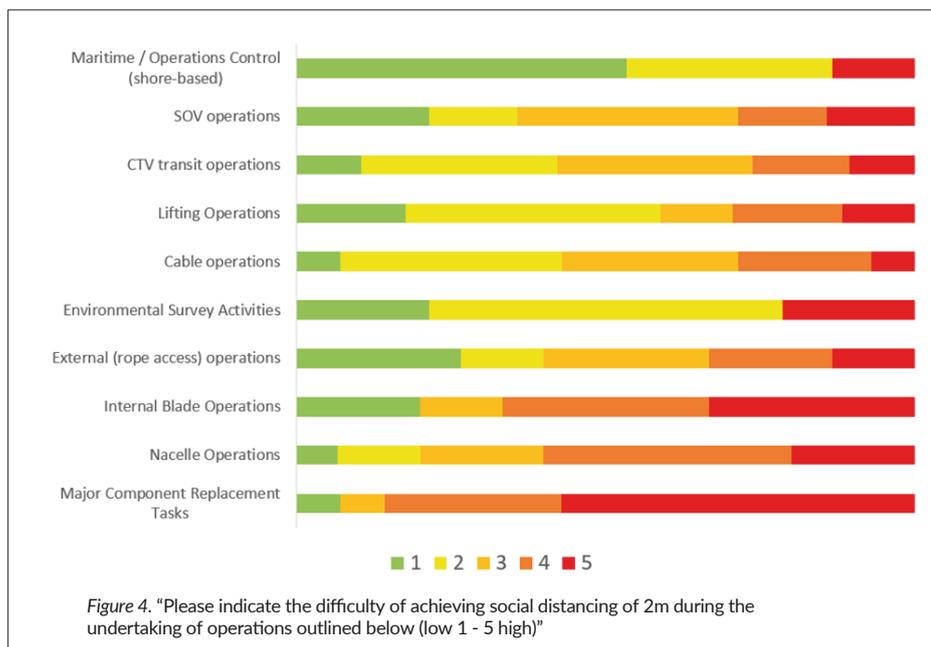
Many of the respondents indicated some suppliers will be at risk, and many could fall to liquidation. Overall this would be of detriment to the industry, where competition will decrease.

“...every level of operations will be carrying some level of financial risk, all down the supply chain there will be some risk.”

“I fear that a number of companies won't be resilient enough to cope financially without a strong turnover and may well slip into administration.”

# PRACTICALITY & DELIVERABILITY OF SOCIAL DISTANCING

The final section of the survey looked to investigate the practicality of operations under social distancing guidelines. The survey asked respondents "How has getting to site to carry out work been made more difficult following the COVID-19 outbreak?"



"We have segregated the Master/skipper of the vessel and made the bridge totally out of bounds to any passengers on board."

"Working offshore and social distancing are not compatible. Confined spaces such as CTVs are confined even if you sit 2m apart."

Respondents agreed that it was far more challenging to get to site for several reasons. Those most commonly listed included:

- // Border closures
- // No logistic routes
- // Onshore social distancing
- // Quarantine
- // Increased duration to mobilise
- // Skeleton crews require additional transits

Now focused on vessels, the survey asked: "is it possible for staff to operate in teams while maintaining social distancing? Please explain why or why not?" Survey respondents indicated that while it is more difficult, the issue is more focused on the passengers rather than the crew. The crew can be fixed, and isolated together, while specialist technicians may be required at several sites, as part of different teams.

One potential mitigation suggested would be to retain a fixed crew, and fixed operations team. On CTVs where space is limited, respondents indicated that achieving social distancing of 2m is a challenge, and it is impossible to add any more people on board without breaking social distancing.

The survey sought to challenge what operations were perceived to carry less risk of infection. The question asked was: "Please indicate the difficulty of achieving social distancing of 2m during the undertaking of operations outlined below (low 1 - 5 high)".

Respondents indicated that the Low (1), or Medium-low (2) exposure risk activities:

- // Shore-Based Marine Coordination
- // Lifting Operations
- // Environmental Survey Activities

These activities can be carried out effectively and according to guidance on social distancing. Medium (3) exposure risk activities:

- // External (rope access) operations
- // Cable Operations
- // CTV Transit Operations
- // SOV Operations

Medium-High (4) and High (5) exposure risk activities:

- // Major Component Replacement
- // Nacelle Operations
- // Internal Blade Operations

# INDUSTRY NEEDS: REQUESTS FROM THE SUPPLY CHAIN

It must be stressed that the list below is compiled to reflect the views expressed by respondents to the survey with regard to specific needs faced by industry.

Clearly there will be differing views across industry and the supply chain and it is likely that the list below does not cover all the requests for action that exist across the industry.

Similarly, these 'asks' represent the requests from industry at a 'snapshot in time' and it is to be expected that as the macro business environment changes both in the UK and internationally, there will be emergent challenges and changing requirements.

As well as the 'asks' received through the survey responses, there are several 'emergent' challenges that have developed since the completion of the survey by respondents. Through discussion at the weekly OCPG, these challenges have been discussed widely by industry and clear asks articulated. In order to provide a comprehensive list of the actions requested to support the UK offshore wind supply chain at this time, these additional 'asks' have been included here though are marked with an asterisk (\*) to denote that they were not requests received as part of the survey exercise.

## Guidance

- // The industry requests that the Government provide specific, detailed guidance to the offshore wind sector, with clear rules, processes and structures that should be followed
- // Survey has indicated the insurmountable challenge of carrying out operations and maintenance with social distancing. Therefore, the group asks the Government and Regulators to provide a clear position on appropriate usage of, and type of respiratory protection. In order to stimulate O&M in the offshore wind industry, a staged, controlled start-up of IMR (Inspect Maintain Repair) operations under COVID guidelines must take place

## Training

- // To ensure a pipeline of technicians with current, correct certifications, training centres should be encouraged to reopen as soon as possible, with limited numbers able to subscribe to the courses
- // The opportunity to renew GWO certifications digitally should be explored with the relevant standards authority and failing that, a risk-based extension of current certifications should be implemented to ensure personnel are able to immediately work across the industry when restrictions are reduced

## Financial

- // The industry and its supply chain have been forced to make use of the Government's furlough scheme, and requests for extended support for furloughed workers until a return to baseline operations is reached
- // Additional support is also requested to cover interest payments for loans while scopes of work are reduced, and the supply chain is unable to operate as normal

## Inspection

- // There must be a time-limited relaxation on required inspection regimes, in order to prevent financial penalties and warranty expirations

## PPE

- // Access to ample PPE and available testing will ensure the industry is able to maintain the security of renewable energy supply to the UK

## Travel

- // Regarding movement of staff and personnel, the Government must arrange with the Department for Transport to identify critical airports, airlines, and flight routes which are most necessary to transport highly skilled workers to OWFs
- // The Port Health Authorities around the UK also need to prioritise key routes and keep those ports open
- // \*Reopening of the Caledonia Canal for commercial passage to aid the faster movement of Offshore Wind CTVs from the North Sea to the Irish Sea
- // \*Clear guidance on the international movement of offshore wind personnel to and from the UK, including:
  - Complete clarity of quarantine exemptions
  - Evidence required for 'offshore worker' status (i.e. letter from client, letter from employer?)
- // \*Protection of / re-opening of various transport routes deemed to be 'critical' to business continuity by respondents to a call for information

In a separate set of discussions, the following key factors relating to travel were also noted:

ORE Catapult consulted the sector with regards to impacts on travel for the on and offshore wind sector, relating to travel for home-based technicians travelling outside of the UK. GEV WindPower, 3Sun, Boston Energy and SMC, all providers of technical support for OEMs and Owner Operators replied to a set number of questions posed by ORE Catapult. The list of respondents is not exhaustive, but based on the current attendees and responses from the OCPG it is likely the owner operators and OEMs will be under the similar constraints and issues as the ISPs in this short poll. For reference the supply of technicians for O&M activity for both on and offshore wind currently looks like the following from the respondents:

- // GEV: 190 technicians mainly rope access
- // Boston Energy: 100 technicians
- // SMC: 80 technicians mainly marine services
- // 3Sun: 100 technicians

ORE Catapult questions put to the sector are stated below in **bold italic**:

- // **Countries you are planning to send techs to this year and when?** Holland, Belgium, Germany, Denmark, Croatia, Ukraine, France, Poland, Italy, Taiwan, Thailand and USA

Critical routes needed to stay open are:

- // LHR (London Heathrow) – CDG (Charles de Gaulle)
- // MAN (Manchester) - CDG
- // CDG – TPE (Taipei)

These routes have stopped for now but would be a real help if they reopened:

- // AMS (Amsterdam/Schiphol) - TPE
- // LGW (London Gatwick) – TPE
- // Any US destinations

**Duration of projects (average and assuming no weather interruptions?)** Varies but on average these will be 2-4 weeks, but we also have some long-standing engagements in Germany, Holland and Croatia that will last 3-4m

**Airports you plan to use in the UK and in country of project?** Manchester, London, Birmingham, Glasgow. Inbound to Amsterdam, Hamburg, Zagreb, Kiev and Warsaw. For Italy will be Napoli and/or Sardinia

**Any testing you would have done prior to sending techs out for COVID-19?** Currently we have no plans to formally test, but we are now exploring this as the availability of testing units is improving. Currently we ask for technicians to self-certify that they have no underlying medical concerns and provide guidance on social distancing whilst in transit.

**Quarantine regimes you expect for each country.** Unclear currently and some countries have different state requirements such as in Germany. Heavily reliant on advice from clients.

**Testing you expect to happen in each country (if you don't know please state none)** again will vary from self-certification to full blood test

"The techs fly to Schiphol from the UK (various UK departure locations) - they have been managing to get to site, though the flight availability is very restricted. The routes from UK to Germany are most difficult I think as [personnel] were having trouble to get to BKR (Borkum Riffgrunde) Circa 40-50 personnel contracted for German works at present (25 per rotation)."

"Manchester/Glasgow, Edinburgh /Heathrow, Eastleigh and Gatwick are seen as critical UK airports to travel from and in most cases are stepping stones for wider access to destinations via Frankfurt and Schipol. Accessing the US is proving to be highly complex with limited to New York and Boston."

"These routes that are still available on a skeleton schedule but if they disappeared, the business will be dramatically impacted...[including] major UK ports such as Hull, Lowestoft, Ramsgate (for the guys getting the ferry to the continent - we operate a lot of [personnel] between UK and Netherlands/France via ferry)."

There are approximately 15 business in the UK/Europe supplying the sector all with similar numbers of technicians (some working for more than 1 company) on a freelance basis amounting to approximately 1,500 technicians in the UK of varying skills and capabilities.

- // An average offshore wind repair contract has a value of £75k per wind farm per month
- // The UK has 33 UK wind farms/ extensions in Crown Estate waters

- // The estimated value of O&M activity = £2.475m per month
- // The average working window is 6 months equating to £14.850m a year for tech costs only

# SUMMARY OF RESULTS & RECOMMENDATIONS

The survey has currently been responded to by 20 members of the UK offshore wind supply chain, with representation from all areas. The recommendations and actions called for by the supply chain do not necessarily fall within the gift of a single partner to deliver, and will in many cases require close collaboration and action between Industry, Government and other stakeholders.

## > Issue

Many O&M activities are challenging to carry out with Social Distancing

No clear plan on how to return to baseline operations of inspection, maintenance, and repair activities

Access to ample COVID-19 testing or PPE provision for technicians/vessel personnel

Restrictions to travel to ports and onwards to offshore wind farms

Many staff are currently on furlough with the system due to close in October

Lack of revenue making payment of interest on business loans unachievable and extended payment terms creating cash-flow challenges for smaller businesses

Technicians are currently unable to renew GWO certificates that are expiring

## > Impact

Reduced scopes of work currently being carried out

Industry and assets at risk of long-term slow down and ultimately a reduction in Annual Energy Production (AEP) of some assets

Fewer technicians deployed in order to ensure safe distancing, resulting in reduced work scopes and potentially reduced AEP of some assets

Delays to work being carried out, additional cost borne in the supply chain and potential impact on AEP

Lack of revenue will result in high staff unemployment

More supply chain companies will be pushed to the brink of liquidation. Fewer companies will lead to less competition and higher prices/costs in the future & loss of UK content /competitiveness

Many skilled workers will be unemployable without changes to processes and procedures

## > Action

Clear guidance on appropriate usage, and type of respiratory protection

Guidance on staged, controlled start-up of IMR operations under COVID guidelines

Advice on accessing PPE supply

All major airports and UK ports to be encouraged to open to allow essential workers in the sector to travel

Extend support of furlough scheme until baseline operational scope returns

Support on interest payments on business loans, during this period of reduced work scopes.

Reopen training centres or allow digital processes for extension and renewal of GWO certifications.

*Nb.* Due to the fast-changing nature of the industry response to COVID-19, some of the 'Actions' outlined have already been partly or fully undertaken. Given the ever-changing nature of the challenges and issues being faced by the supply chain, ORE Catapult plans to refresh findings by undertaking this survey on a regular basis.

# APPENDICES

## Appendix 1.0

### Survey questions

#### *Industry impacts*

Across the industry can you list issues/challenges that you expect to see in the next 3 months?

Across the industry can you list issues/challenges that you expect to see in the next 6 months?

Across the industry can you list issues/challenges that you expect to see in the next 9 months?

#### *Staffing / Personnel*

Are any of the following likely to have an impact on business continuity to the point where turbine availability is reduced, and in what time frame?

- Finding Staff (securing personnel)
- Moving Staff (trans-national)
- Deploying Staff (UK transport/ Accommodation)
- Currency of Staff Certifications
- Monitoring Staff Health
- Monitoring Available Resource

Please provide any ideas you have to mitigate the impacts for any or all of the above issues?

What (if any) data are you gathering on personnel/staff regarding their availability to work and current information? e.g. staff self isolating / symptoms monitoring etc.

#### *Operations*

What are you doing in terms of changes to usual scopes of work?

How is maintenance being prioritised?

How will the limited scopes of work and maintenance prioritisation impact on OEM warranties in the next 0-9 months?

Which of the following is likely to have an impact on business continuity to the point where turbine availability is reduced?

For any of the issues that have been highlighted above please indicate what action could be taken by Government, Regulators, or others in order to mitigate their impacts.

What scenarios have you been planning for that you anticipate facing in the next 12 months?

#### *Supply Chain Costs and Financial Risk*

Where are you seeing increases in costs?

Who is absorbing the additional costs currently, and for how long is this sustainable?

What assessment of financial risk has been carried out regarding the present situation?

Is it your understanding that the financial risks are being carried by Developers / Tier 1 suppliers, or are the additional risks being carried further down the supply chain?

Will Tier 3 and 4 Supply Chain members have the resilience to survive with a limited scope of work and greater risk associated with operations?

#### *Health, Safety and Environmental*

How has getting to site to carry out work being made more difficult following the COVID-19 outbreak?

Regarding Vessels, is it possible for staff to operate in teams while maintaining social distancing? Please explain why or why not.

Are there any activities that have been curtailed that you believe could be carried out safely, in line with Government legislation? If so, please state what additional tasks, and how they could be performed?

Please indicate the difficulty of achieving social distancing of 2m during the undertaking of operations outlined below (low 1 - 5 high)

- Major Component Replacement Tasks
- Nacelle Operations
- Internal Blade Operations
- External (rope access) operations
- Environmental Survey Activities
- Cable operations
- Lifting Operations
- CTV transit operations
- SOV operations
- Maritime/Operations Control (shore-based)

Are there any other operations that come with additional HSE risk at the present time, or will over the next 9 months?

For any/or all of the above, please give an indication of any processes that could change in order to reduce the HSE Risk of this work.

#### *Any other comments*

## CONTACT US

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## ENGAGE WITH US

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### GLASGOW

Inovo  
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### HULL

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### CORNWALL

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### PEMBROKESHIRE

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