

MARINE WARRANTY SURVEY

Module 2 – The Good the Bad and the Ugly

(An examination of MWS delivery, understanding and challenges)

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Presentation by JNRC & SOMWS

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The Good, The Bad and The Ugly

- Overview
- Issues from Module 1
- Reemphasis on what MWS is and is not and who is subject to the Warranties
- Pre – Contract
- Briefing – Kick off Meeting
- Document reviews
 - Incomplete information
 - Late Documents
 - Deliberately withheld information
 - Lack of verification
- Attendance
- Repetitive CofA
 - Who retains responsibilities and obligations

- Where things can go wrong–
 - Attendance
 - Certificate of Approval
 - Non Issue
 - Sailing without a CofA
 - Breach of conditions
 - Impact on Underwriters, Financiers, Contractor and Client
- Management of change
 - Conducting an effective Change Process
- Deviation from a Standard



Overview

- Module 1 –
- Established that MWS is required to witness that the Warranties, those 'promises' exchanged between the underwriter and the assured have been carried out.
- Materially this means that the agreed standards have been demonstrated to be met throughout the entire temporary phases of the Insured Event.
- These standards are agreed between the Underwriter and the Assured and it is the responsibility of the Assured to ensure that the Contractor can meet these standards. This may be a contractual requirement written into the contract between the Assured and the Contractor.
- The MWS DOES NOT state what is acceptable, only that the conditions or standards that have been agreed are MET.
- Any deviation from this must be presented to the Underwriter as it may be a change of Risk that is outside of the tolerance of the respective Insured Panel.

Lead Underwriter

- The lead underwriter normally takes the largest share of the premium and is generally considered to be experienced in the type of risk under cover.
- It is the responsibility of the lead to maintain communications throughout the project and ensure that warranties are executed in accordance with the insurance schedule.
- The lead generally attends any kick off meetings and will accept on behalf of the panel minor changes to the warranties ensuring that they are transparent to the rest of the panel as appropriate.
- Larger changes may require the engagement of the broker and the entire panel as it may entail a change of risk that is potentially unacceptable to following panel members.



MWS moving forward

CHALLENGES



Does MWS matter?



**Geographical
shifts**



**Industry
transitions**



Race for space

FPSO & FLNG project pipeline next 18 months

FPSO

- Azule Energy, PAJ, Angola
- Santos, Dorado, Australia
- AFC, Pecan, Ghana
- BWE, Kudu, Namibia
- Equinor, Pao de Acucar, Brazil
- Svetah, PY-3, India
- Ithaca, Cambo, UK
- Ping, Avalon, UK
- Turkish Petroleum, Sakariah, Turkey
- Woodside, Trion, Mexico
- Santos, KPS, FSO Papua New Guinea
- Woodside, Browse, Australia
- TotalEnergies, Cameia/Golfinho, Angola
- Stabroek Block#7 and 8
- ENI, Evans Shoal, Australia
- Western Gas, Equus, Australia
- Petrobras, SEAP1/2, Brazil
- Petrobras, Albacora, Brazil
- Petrobras, Pampo/Enchova, Brazil
- Petrobras, Atapu#2/Sepia#2 (P84/P85), Brazil
- Petrobras, Barracuda, Brazil
- Petrobras, Marlim revitalization, Brazil
- Petrobras, Tupi#8, Brazil
- Shell, Gato do Mato, Brazil
- Repsol, Polok/Chinwol (Block29), Mexico
- TotalEnergies, Block58, Suriname
- Conoco Philips, Salam Patawali, Malaysia
- Orcadian, Pilot, UK
- Vaalco, Kelidang Cluster, Brunei (Petronas??)

FLNG

- Chevron, Leviathan, Israel
- Delfin, Delfin LNG, USA
- Golar, Golar MK2, Location TBA
- Pembina, Cedar LNG, Canada
- NFE/Pemex, Lakach LNG, Mexico



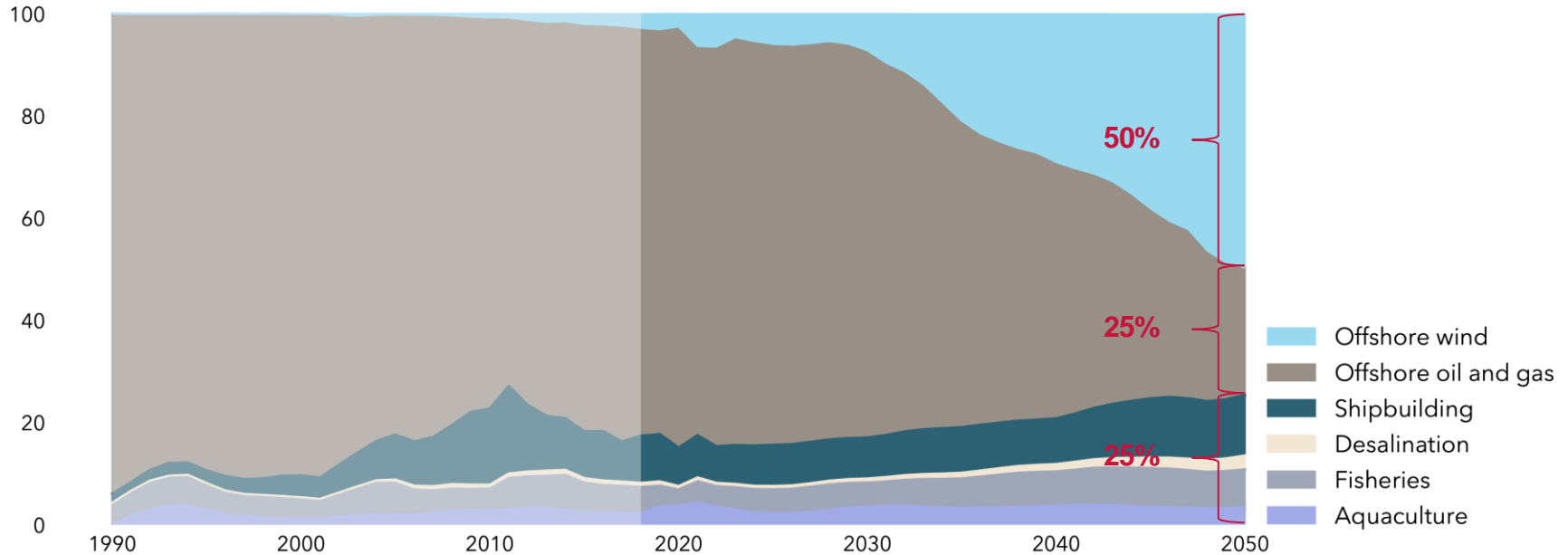
Clarksons predicts bumper year for FPSO awards in 2023

World's largest shipbroker sees 15 newbuilds and four conversions on the cards for FPSO market

Blue Economy investments in wind surpasses oil and gas

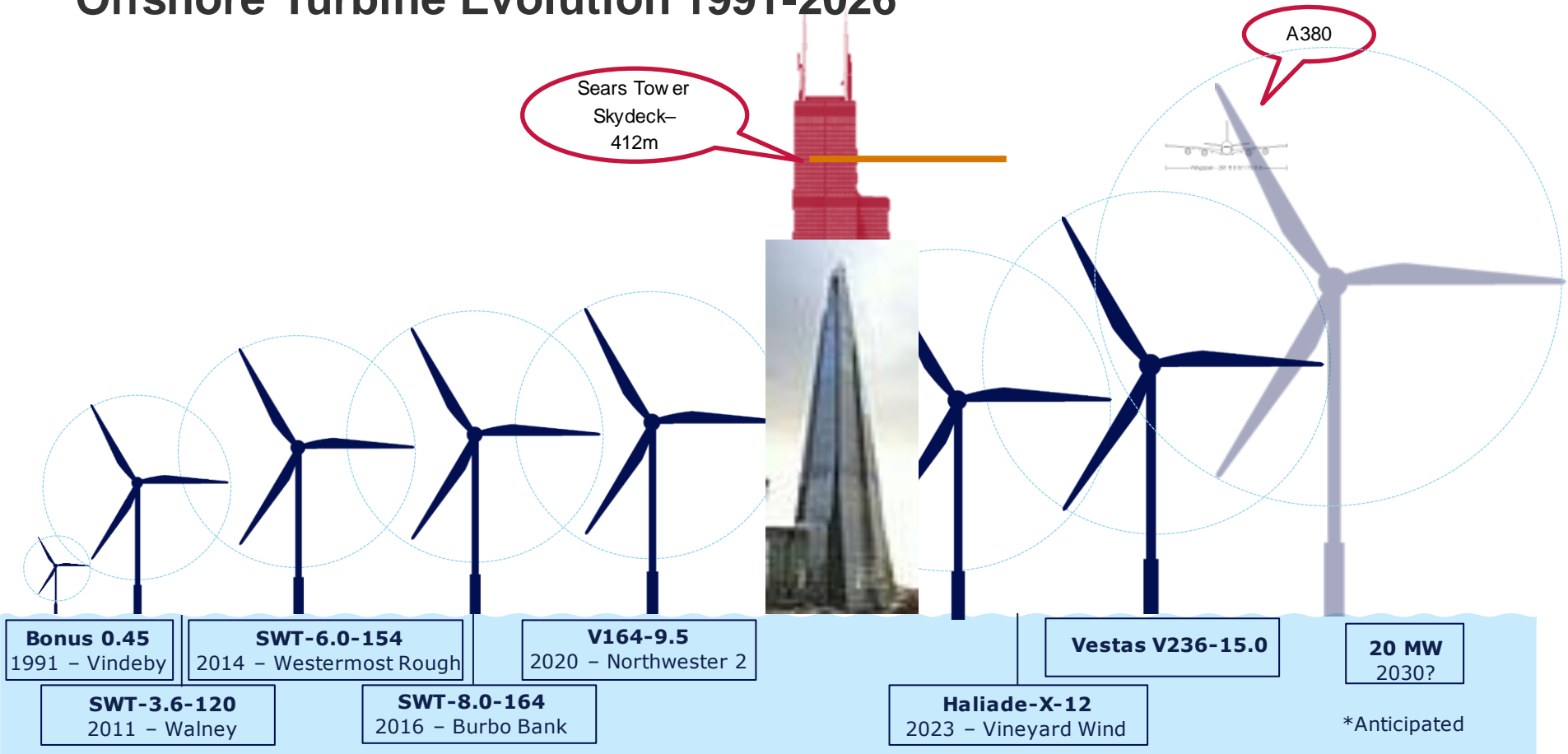
Share of global capex by sector 1990 - 2050

Units: Percent



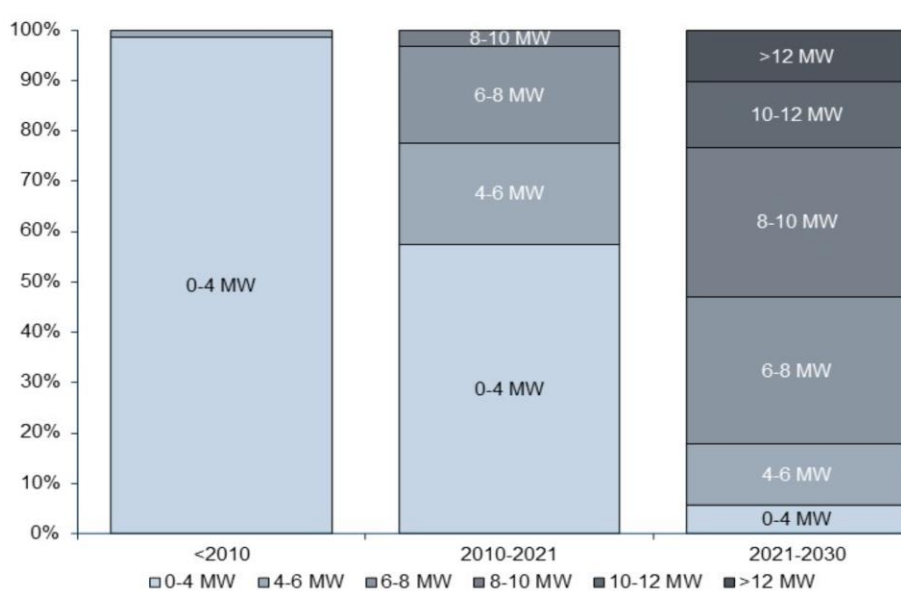
Copyright: DNV

Offshore Turbine Evolution 1991-2026*

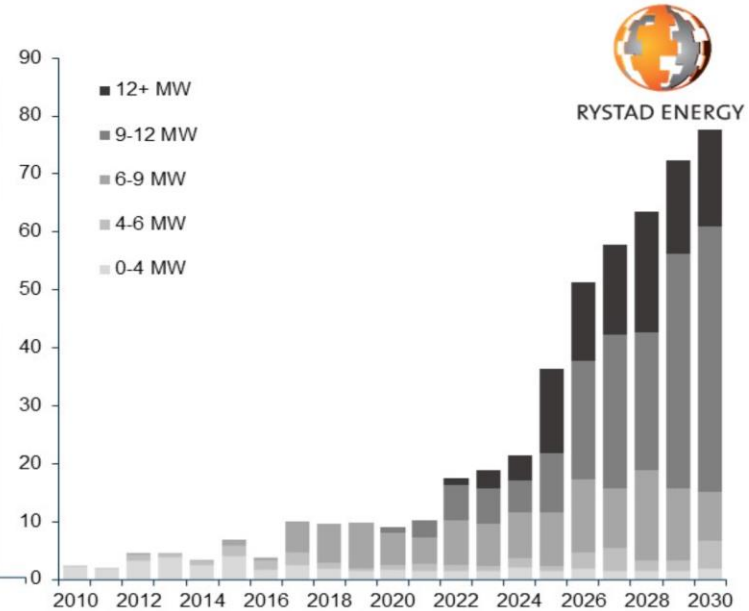


Significant growth expectations for offshore wind

Share of installed turbines by size (MW)*
% of installations



Turbine installation vessel demand*
Vessel years

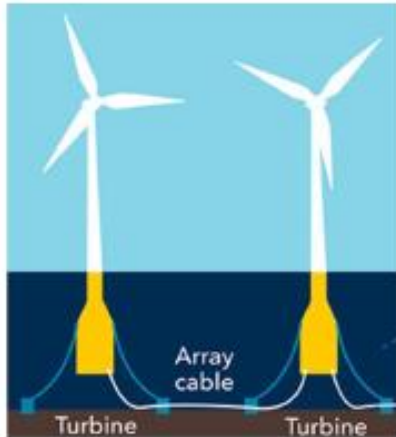


*Global data, excluding China.

Source: Rystad Energy OffshoreWindCube, Rystad Energy research and analysis

300GW floating wind - a supply chain and infrastructure challenge

20 000 floating turbines



Each on top of a
~5000 tonnes floating structure

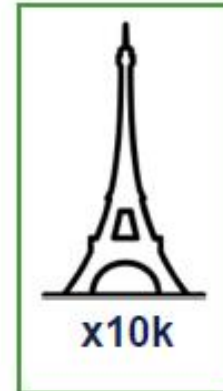
47 000 km
Array cables



70 000 km
Mooring line



100 billion
tons of steel



Changing Market



- Emerging industries include hydrogen, CCUS, wind, wave, solar, large aquaculture and fish farming, deep sea mining, decommissioning and the space race to name but a few.
- Projects can be extremely large in the renewable sector but generally the potential loss is smaller than in Hydrocarbon Sector – likely not so for Hydrogen and CCUS Sectors nor for large export cables.

- Regulatory process undeveloped despite an increasing cross over between industries –
 - INTOG
 - Renewable to hydrogen
 - CCUS
 - Emissions control, Carbon Credits – Shipping, Projects
 - Biodiversity Regulations
 - Interconnectors
 - Energy Islands
- Increasing pressure to secure equipment and material manufacturing space.
- New vessel and new mission engagements
- Fleet and port procurement partnership agreements being sought on projects – multi MWS, Multi Project, Multi U/W relationships.



- Safety being compromised
- Raw materials
- Vessel utilisation
- Capital Returns
- Cost overruns
- Litigation funding

MWS Contract



- The contract is generally held between the MWS and the Assured.
- Whilst this may seem strange the reality is that the MWS whilst acting as the eyes of the Underwriter maintains a responsibility to the assured to advise if there is risk of a breach of the Insurance Contract occurring due to parties acting outside of the express warranties of the insurance contract.
- Time tested
- Contract can be placed years before the CAR Policy meaning no opportunity for the U/W to influence choice or SOW
- Contract negotiations can be prolonged
- The contract does not enforce a relationship between the MWS and the Underwriter.
- Often the Underwriter is unknown and there is no kick off meeting.
- Underwriter would appear to have little influence over the contract.
- The percentage for engineering is not transparent.
- Often multiple MWS appointed
- **Lump sum driver**
- There is a drive to place the contract with the contractor
- The clients continuously push for **unlimited liability**
- Increasingly there is a **consequential loss** clause
- We are seeing an increase in the use of “**Fines**” for non issue of a CofA.
- Underwriters will change MWS to appease clients
- Any **underspend** from the “deductible is hidden and lacks transparency over who benefits.
- Continual drive to the bottom on **rates**.
- Often an **NDA** is in place which can prevent communications with U/W

1.6 The MWS will:

- 1.6.1 advise underwriters when a confidentiality agreement with the assured is in place which would preclude the exchange of information or communication with underwriters.

Kick off meeting



- Comprehensive opportunity to review the contracted SOW and ensure that there is clarity over:
 - Communications
 - Team
 - Underwriter
 - Broker
 - Contractor
 - Emergencies
 - Document review Process
 - Time for review
 - Mechanism for Variations
 - Clarity of scope with all parties and best conducted with U/W in attendance

- Often the KOM can be a disjointed process where key personnel eg the Underwriter has not been invited, there is limited engagement from the assured and the scope somewhat opaque.
- No understanding of who the Lead underwriter is!

- No Kick off meeting
- No opportunity for the U/W to accurately price the risk.

1.4 Upon request the MWS shall propose an MWS plan to be agreed by the assured and underwriters which indicates, as a minimum, each activity, milestones, attendances and issuance of COA(s) for the project.

1.5 Upon request the MWS will make available to underwriters:

- 1.5.1 an opinion on the adequacy of the SOW - if there are any gaps or omissions this should be communicated to the Assured and the SOW updated accordingly;
- 1.5.2 a schedule of actual and proposed site attendances;
- 1.5.3 a schedule of COAs to be issued.

Certificate of Approval



- The Certificate of Approval (CofA) is the document that states the warrantable conditions have been executed in accordance with the proposed procedures.
- Any deviations that have been presented and accepted as recognised changes should be clearly identified.
- The CofA is valid once signed and remains in force until the operation is fully executed, or events change such that the CofA is no longer valid.

- Repetition of information that has already been accepted or that may be conflicting is often placed in the CofA.
- For repetitive CofA's there is often a complete lack of understanding over who is taking the responsibility for compliance and deviations
- The repetitive CofA is seen as a free pass.



- The **validity** of the document is not properly understood.
- Changes to agreed procedures not evidenced by a **management of change** process.
- Blatant **deviation** from agreed procedures or operations.

1.3 The Marine Warranty Surveyor will issue a COA for each critical operation as defined in the relevant scope of work, provided that they are satisfied, so far as possible, that the operations are conducted in accordance with:

1.3.1 recognised codes of practice for design and operations;

1.3.2 best industry practice appropriate for the vessel(s), equipment and location(s);

1.3.3 vessel(s) and equipment being used within defined safe operating limits;

1.3.4 current Marine Operations Manual. When an operation is conducted outside the Marine Operations Manual, this is subject to a formal management of change process, with senior leadership, technical authority and MWS approval

Attendance and surveys



- A survey is crucial to achieving an accurate understanding of the condition, history, readiness and operation prior to its use on the project.
- The survey is a focus on the key aspects and to accurately understand the risk must involve review of the crew/operator competency.
- Effective attendance can only be achieved when adequate time is provided for all checks and surveys to be completed.
- Necessitates transparency and good communication between Port, Contractor and Vessel ensuring that the Assured and MWS are provided with regular updates.

- Attendance at the port or for surveys can be challenging due to late notifications
- Time allowed for surveys has been significantly squeezed and increasingly companies try to utilise the MWS as the project policeman.
- There is a growing trend to reduce the number of meetings and attendances utilising the repetitive **CofA** as the sole means of remaining Insurance compliant.



- **Suitability survey** is conducted too late to be effective for the operation.
- Ports or/and vessels refuse or challenge the ability of the surveyor to attend.
- **COST – MWS bears all**

Vessel Suitability



- Vessels need to be chosen to suit the requirements of the project and thus many factors are critical to understand during the chartering of the project vessels.
- DP Capability, Crane Capacity, Deck Strength, Crew competence, working limits etc should all be reviewed in relation to the operation.
- Highly fertile market where opportunities abound for new vessel and technology

- Due to the number of projects that a vessel can work on there is a significant number of surveys.
- Increasingly there is a limit to the availability of **suitable** vessels.
- Marine engagement is significantly overlooked and undervalued.
- Information is often **very late**
- **Vessels** not identified or **changed** at short notice
- **New fuels** and operating parameters need careful consideration



- Significant push to reduce **site specific** geotechnical surveys and reports.
- Schedule creep extensive
- Mission equipment **criticality** not realised
- Multiple motion compensation interdependent systems
- Novel Technology being utilised on project execution without trial opportunity
- Innovation is moving quicker than the standards.
- Vessel delays
- Insufficient time to conduct comprehensive trial and FMECA

Document Reviews



- Sufficient time must be provided for the MWS to conduct a review of the appropriate documentation.
- This must allow for all of the project risks to be accurately understood and that a check has been conducted on:
 - calculations;
 - drawings;
 - procedures;
 - certificates;
 - manuals;
 - relevant reports.

- Typically, projects would allow circa **6 hours** for a document review, increasingly projects are bid on much fewer hours for review and at times on a risk-based approach.
- The doc review is not an independent **verification** of the whole project and may not include the component parts.
- Most projects try to identify a Main Document Register however, scope creep invariably means that the number of **documents grow**.
- Newer developers and contractors may have differing interpretations on risk.



- Late-stage issue of documents is increasing and in particularly contractors will try to force a **delay** in turn around so that they can present for variations.
- A lack of a comprehensive independent **verification** means that the calculations can often be erroneous or poorly presented.
- Contractors will avoid proving adequate engineering data, typically saying that this is **proprietary information**

Management of change



- The management of change on a project should be conducted with sufficient time to accurately
 - review the risk,
 - ensure that suitable mitigations remain in place
 - Document the changes to be made
 - Ensure that ALL parties are comfortable with change of operation and potentially the change of risk profile.
 - Maintain the integrity of the asset.

- Changes are inevitable on a project, often the requirement to notify MWS is conducted very late, over a weekend and is increasingly pushed as the normal process.
- There is a tendency for deviations to be swept under the carpet
- The consequence of an undocumented change is not well understood.



- Contracts increasingly are looking for MWS to accept the risk for **all changes under a lump sum** offering
- The implications of a wilful deviation from the scope is not generally understood
 - Insurance cover
 - Financial Obligations
 - Regulatory requirements
 - Fatigue
 - Asset integrity

Transparency is key to acceptability

Resourcing and competence



- The energy industry is expanding rapidly and on both a Global and a Regional perspective the number of projects on the horizon is somewhat staggering
- Cross pollination of skills is improving – growth in oil majors engagement across all sectors
- Personnel requirements will expand and the skill base will diversify to develop new skills for the emerging sectors
- There is a growing number of skilled personnel leaving the industry
- Sector desirability risks leaving traditional industries under resourced
- As sectors/project increase attractivity there is a competition for personnel, this can lead to significant depletion of personnel from established projects
- A common complaint from clients is that the MWS is not proficient in the skills required for the project
- MWS seen as the police to stop or push forward the project.
- Company resources may be limited depending upon company size.
- MWS is awarded to companies who do not have the resource for delivery.
- Industry experience is limited and at times this significantly shows in the maturity of project development.

Lessons Learnt



- Ideally projects allow for a transparent process of lessons learned.
 - Induces Safer working position
 - Better planned operations
 - Shared learning process to benefit projects from an industry perspective
 - Insurance premiums can be better calculated based upon the actual rather than the perceived risk profile.
 - Industry bodies playing a role in the collation of Lessons Learnt

- Staff turnover is high on projects
- Demand for MWS surveyors high, but perceived value low – **unattractive to be an MWS**
- Lessons learned are not captured
- Learning is lost
- High turnover of staff exacerbates the issue meaning high potential for repeat incidents.



- Lack of project knowledge of key risks
- High potential for interface issues due to rolling personnel/company engagements
- **High potential** incidents hidden from stakeholders
- RCA is brushed over as a challenge to the project schedule and profitability
- Insurance is utilised to pick up the **failure** with high chance of repetitive incidents.

Climatic Change



- It is generally accepted that the climate is changing, and we are experiencing previously unseen conditions across the globe.
- Previous standards have provided an accepted base for design and asset life allowing regulatory compliance and Investment and Insurance confidence

- With the change in climate, we are seeing significant changes in conditions
- Are the installation and operating conditions that we see now going to be the same for the lifecycle of the asset?



- Without input on the design there is a risk that new technologies and equipment are under designed and thus unable to withstand the impacts of increased temp, precipitation, icing, wave loading etc.

Reality

UK government's offshore wind farm auction was a 'disaster'. It could cost bill payers £2 billion

Zero new wind farms will be green-lit this year, jeopardising the government's plan to decarbonise the electricity system and achieve net zero by 2050

However, inflation, **supply bottlenecks** and higher financing **costs** have eroded profitability of many projects, forcing some to cancel the offtake agreements, while others are still seeking to renegotiate the terms, the report said.

US offshore wind projects facing **inflation** headwinds

While wind power costs had fallen by about 50% since 2014, a recent industry survey showed **costs rose** by 11%-20% over 2022, and in some cases by 30%, the report said.

Orsted plunges 20 per cent on risk of £1.84bn US impairments amid offshore wind project woes

How does MWS support a holistic assurance program that better derisks projects?



Thank You & Questions