ENERGY

"A PERSPECTIVE ON
VESSEL AVAILABILITY AND SUITABILITY FOR OFW PROJECTS"

VIETNAM WIND POWER

GLOBAL WIND ENERGY COUNCIL (GWEC)

HANOI

12 JUNE 2019

ABOUT HFW

Aviation

- #1 - recognised leaders in liability, litigation and dispute resolution
- >100 airline clients worldwide

Commodities

>30 partners globally specialising in commodities work

Insurance

21 – number of partners recognised as insurance experts across key global jurisdictions

Shipping

- 24 – "Shipping Law Firm of the Year" Awards since 2004
- 130 yrs of maritime industry expertise

Energy

10 – specialist energy teams based across 10 international offices providing 24/7 service

Construction

>50 construction specialists across UK, Europe, the Middle East, Asia and Australia.

2 - we act for two of Europe's largest contractors

Wind – Onshore & Offshore

Solar – Grounded, C&I & Floating

Skills – WTG, Foundations, Cables and T&I Contracts (EPC, Split/Wrap and Bespoke)

Chambers Asia Pacific Guide – “recognised practitioner”
under “Projects & Infrastructure: International - Singapore” in 2018 and 2019

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OUTLINE

- Introduction
- Demand & Growth of OFW in Asia
- Vessel Availability & Suitability
- Nature of OFW Vessels
- Number of OFW Vessels
- Cabotage
- Contractual Considerations
- Conclusion

DEMAND & GROWTH OF OFW IN ASIA

- Started with Taiwan about 5 years ago
- Opportunities in Japan and South Korea emerging. Recent 40MW Inter-tidal Nearshore Wind Project in Vietnam
- Focus shift from relevant but common topics
  – e.g. bankability, financing structures, PPA and general discussions on EPC contracts widely ventilated
- Decided on “**availability and suitability of purpose-built installation vessels**”
- Extremely crucial but perhaps underappreciated aspect for OFW construction packages

VESSEL AVAILABILITY & SUITABILITY

- Low supply and high demand + limited viable weather windows = thin margin for error
- “Best-drafted contracts”, “most favourable terms”, “best technical solution”, “best quality”, “best capacity factor” and “best policy” could all become moot
- Inordinate delays, costs and disputes; spilling over to next available window
- No project if there is no vessel solution – i.e. vessel does not show up or unsuitable

VESSEL AVAILABILITY & SUITABILITY

- Contractor who has the installation vessels will get the contract
- Employer who has a vessel solution will deliver a project
- Vessel solution should be one the earliest and dominant hurdle topics during the deployment phase of any OFW project

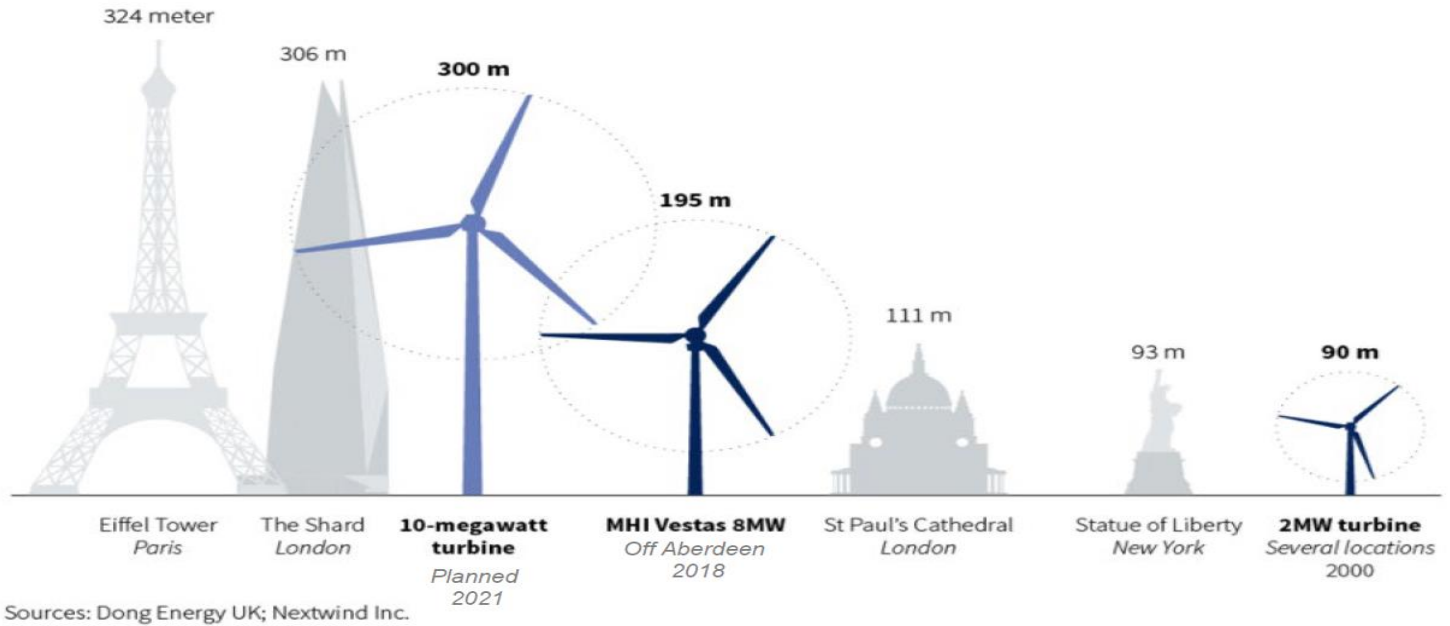
VESSEL AVAILABILITY & SUITABILITY

- Main types of specialist vessels for OFW projects
  (1) Foundation Installation Vessels
  (2) WTG Installation Vessels
  (3) Cable Laying Vessels
  (4) Others (e.g. dredgers, trenchers, rock dumping fall pipe vessels and support vessels)

- WTG, FOU and CAB installation vessels being the most specialised and most limited in supply

- Those available and fit for purpose are rarer still

20 YEAR JOURNEY OF OFF-SHORE WIND



OFW VESSELS
"SCYLLA"

Offshore installation vessel

24,000 GT

1,500 tonnes crane capacity

Dimensions : 139 m x 50m

OFW VESSELS
"OOS ZEELANDIA"

(Design Approved)

Largest Semisubmersible Crane Vessel currently

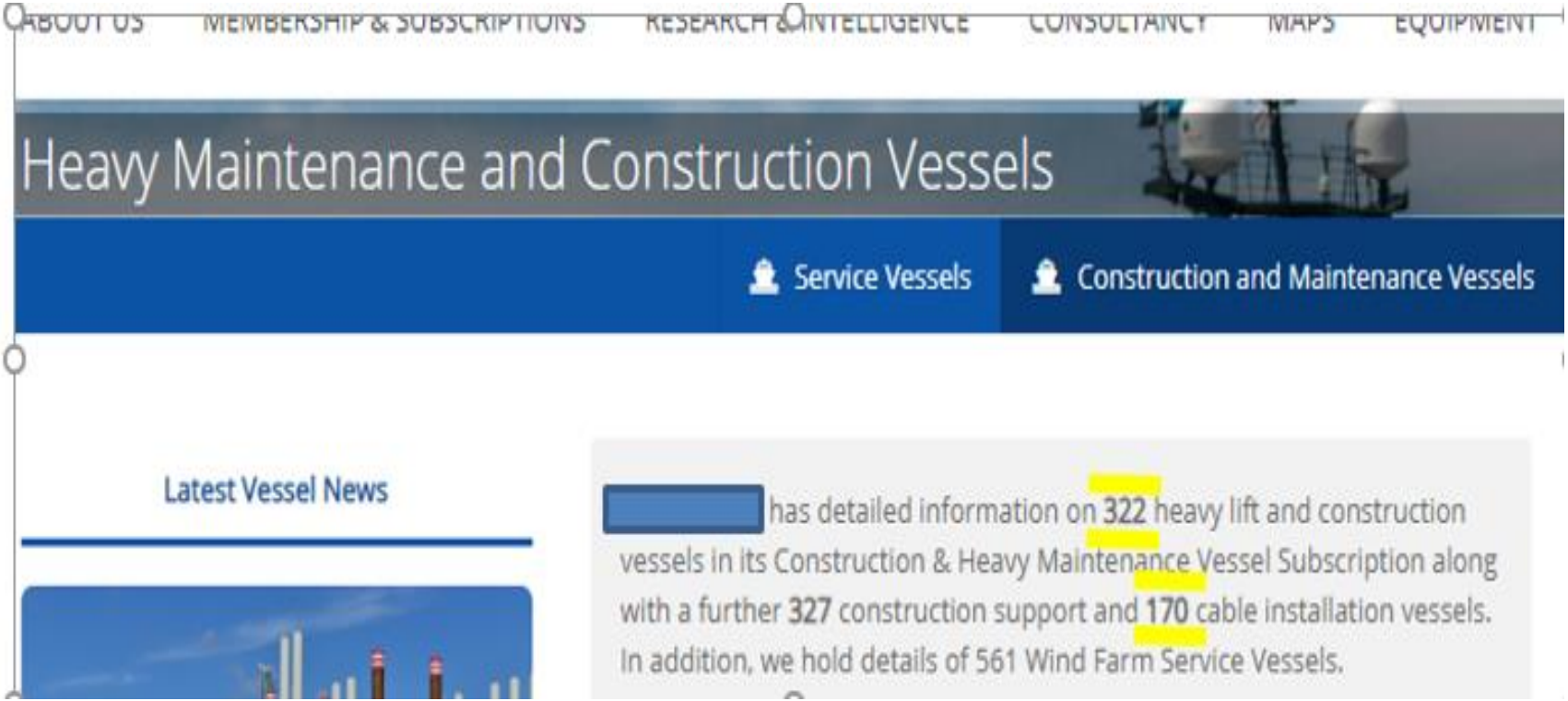
Total lifting capacity of up to 25,000 metric tons (MT) using two (2) fully-revolving cranes of 12,500 MT each

PURPOSE-BUILT VESSELS

- Rare purpose-built vessels
- Expensive to build and hire.
  - Daily Charter Rate = upwards of **€xxx,xxx/- i.e a 6-digit Euro amount**.
- Reserved and committed years in advance
- Demand and competition is intense from other markets e.g. Europe and North America

= Limited availability and not readily replaceable – not just a cost issue

NUMBER OF OFW VESSELS
ESTIMATED SUITABLE VESSEL SPREAD IN ASIA PACIFIC



NUMBER OF OFW VESSELS
ESTIMATED SUITABLE VESSEL SPREAD IN ASIA PACIFIC

- Need to **exclude and disregard** the following:

  (1) Vessels dedicated to oil and gas activities

  (2) “Unbankable" vessels with no track record

  (3) Vessels with low or inadequate technical and performance specification

  (4) Chinese fleet which are solely active in the PRC

- Need to **exclude and disregard** the following:

  (5) Committed vessels:

  (6) Market strategy and focus

  (7) Policy or regulatory restrictions

NUMBER OF OFW VESSELS
ESTIMATED SUITABLE VESSEL SPREAD IN ASIA PACIFIC

- Our estimate of vessels suitable and available for OFW campaigns in Asia-Pacific is:
  - **approximately 12 or less WTG installation vessels** which are suitable for installing the new generation of **8MW or greater WTGs**; and
  - **approximately 30 or less heavy lift vessels with crane capacity of 800 tons** and above which are suitable for the installation of foundations and **of these 30, approximately only 8 to 10 have crane capacity of 2,000 tons or above**.
- About **half to two-thirds** of these vessels are PRC built
- Limited vessel spread becomes even more limited if any **cabotage** issues or other policy restrictions applied

CABOTAGE

CABOTAGE REQUIREMENTS - SUMMARY

	Taiwan	South Korea	Vietnam
Local Flagging Requirements?	No. Generally, no local flagging requirement at present save that vessel must not be PRC flagged or PRC built (National Security Joint Review).	Yes. Generally, there is local flagging requirement.	Yes. Generally, there is local flagging requirement.
Foreign Flag Dispensation?	Technically inapplicable since no flagging requirements in the first place.	Exceptionally on a discretionary basis.	Exceptionally on a discretionary basis.
Foreign Ownership Restrictions?	Yes, if Taiwanese flagged. At least half the capital of vessel-owing company must be held by Taiwan nationals. Chairman and half of directors must be Taiwan nationals.	Yes, Korean nationals must be controlling shareholders.	Yes, total share owned by foreign investor must not exceed 49% and control must remain with Vietnamese nationals. Vessels owned by joint venture companies, which are part owned by foreign investors are permitted to perform only in some special services in the cabotage area.
Local Crewing Requirements?	Yes but unclear as to what ratio and exceptions may apply to OFW.	Yes but unclear as to what ratio and exceptions may apply to OFW.– numbers can range from 1 to 8 per vessel depending on total number of seafarers on board.	None save that foreign crews must obtain certificate endorsements from the Vietnam Maritime Administration.
Readily available local vessel spread?	Extremely limited.	Available jack ups and liftboats are primarily from the O&G market but not generally accepted as suitable for OFW. Hence, spread is extremely limited.	Unclear at the moment but likely limited

CABOTAGE
IMPLICATIONS

- **Exclusive System**
  - Naturally reduces the already limited vessel spread
- **Discouragement to Market Entrants**
  - Compulsory reflagging requirements are likely to discourage OFW installation vessel owners from entering such markets.
  - Curtailment of other market opportunities
- **Complexity**
  - Cabotage-compliant structures are complex and practically difficult to implement
  - Need to rebalance effective control and economic interests of the stakeholders
  - Residual structural risks

- **Contractor’s Equipment**
- **Responsibility for Vessel Availability**
- **Distinguishing Traditional EPC Model**

- Delay & Idle Time (non-default scenarios)
  - Prolonged suspension by employer (up to 84 days - based on FIDIC form);
  - Prolonged force majeure delay (up to 84 days or multiple of 140 days or even 365 days - based on FIDIC form);
  - Delays by associated works;
  - Delays by adverse weather conditions; and
  - Timing of Marine Warranty Surveyor decisions and actions.

CONTRACTUAL CONSIDERATIONS

- Demobilisation/Remobilisation & Latest Vessel Availability Date
- Collaboration & Coordination between associated works contractors
- Managing overlapping works and delays between associated works contractors
- Buffer and option periods to ensure vessel availability
- Risk and cost allocation is a separate discussion to be negotiated on a case by case basis

CONCLUSION

END

THANK YOU FOR YOUR TIME

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