



Mobile Offshore Renewables Units: Examining the Need for Unification of Maritime Law

CMI Colloquium, Montreal, 15 June 2023

Three Theses:

1. Although mobile offshore renewables units (“MORUs”) float, are towable, and in some cases have been registered as a vessel, they may not legally be “ships” for all purposes.
2. As a result of the nomenclature issue, the application of current maritime conventions to MORUs is either uncertain or absent in key areas.
3. Legal uncertainty or absence of applicable conventions will lead to unnecessary contractual complexity, higher finance costs, and economic inefficiencies for an emerging maritime sector.



*Mobile Offshore Renewable Units (“MORUs”):
What are we talking about?*

MORUs: Generating Assets

Floating Wind Turbines



Credit: Photo of the Kincardine Offshore Wind Farm project courtesy of Principle Power

Floating Tidal Energy Converters



Credit: Scottish Government, CC BY 2.0 <<https://creativecommons.org/licenses/by/2.0>>, via Wikimedia Commons

Floating Wave Energy Converters



Credit: Mocean Energi Ltd

MORUs: Generating Assets (cont.)

Floating Solar Energy Converters



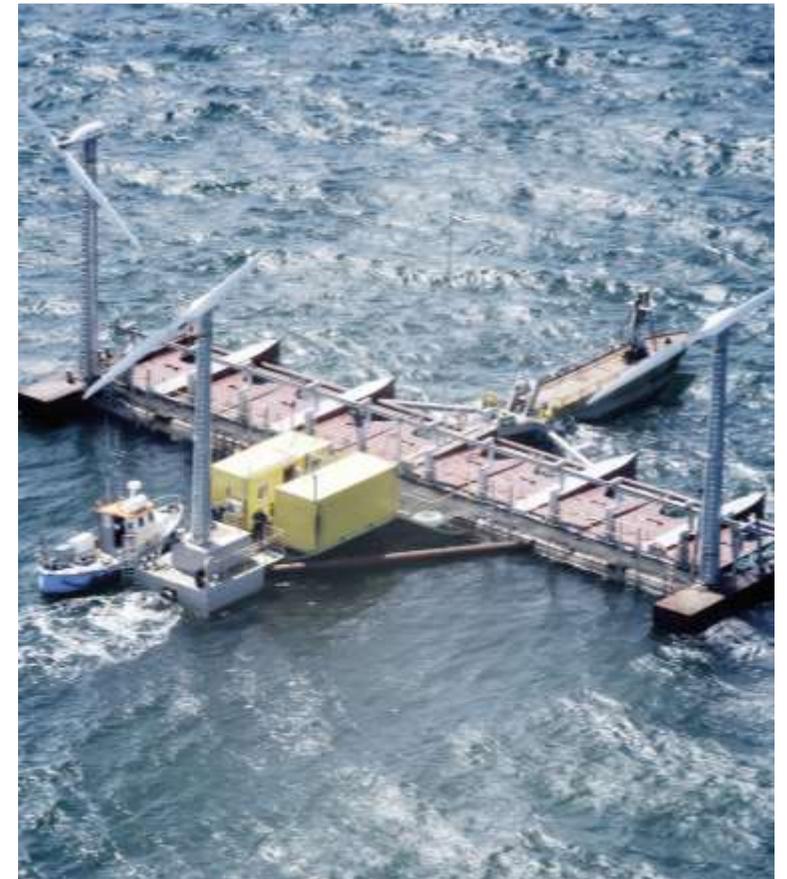
Credit: Ocean Sun

Floating Ocean Thermal Energy Converters



Credit: Global OTEC

Hybrids



Credit: Floating Power Plant

MORUs: Auxiliary Units

Floating Grid Integration Systems (e.g. Floating Substations)



Credit: BW Ideol / Hitachi Energy

Floating O&M Facilities



Floating Measurement Units



Mobile Offshore Renewables Units' Advantages Over Other Forms of Renewable Energy



Territorial Advantages

Floating Renewables can be deployed where comparable fixed-bottom or onshore facilities can not

- This includes
 - Shallow waters where fixed-bottom foundations can't be used
 - Deeper waters (>60m)
- This can significantly expand the usable portion for wind of Producing Coastal State's EEZ
 - 80% of Europe's EEZ
 - 80% of Japan's EEZ
 - 90+% of US West Coast & Hawaii

Technological Advantages

- Floating wind average capacity factors approaching 60% (vs. 40-50% for fixed-bottom offshore)
- Floating Solar can have higher production (10-15% vs onshore)
- Tidal+storage/OTEC = baseload generation
- Greater design standardization?
- Serial production with lower cost
- Fewer expensive installation vessels (?)

Legal / Commercial Advantages

In the right legal environment

- A Mobile Asset allows:
 - New finance structures
 - Asset finance vs. project finance
 - Charter vs. ownership concepts
 - New business models
 - Lease, energy as a service, etc.
 - State as both licensor and property owner of offshore areas
 - Further from shore = Less NIMBY Issues
- ... *BUT new conflicts?*

Some Questions to Keep in Mind When Considering Legal Challenges to Greater International Deployment of MORUs



What is a Mobile Offshore Renewables Unit, and is it a “ship”/ “sea going ship” / “vessel” (at least legally for purposes of a relevant convention)?



Which (and how many) States are party to that convention?



When, what, and where could something go wrong? While in transit or at site? In whose waters?



If there is no international convention which: (i) is applicable to MORUs, (ii) covers the circumstances which have occurred, and (iii) is binding on the relevant States, then which State’s domestic law applies?



Is there relevant international convention, treaty, or agreement which might apply in those circumstances?



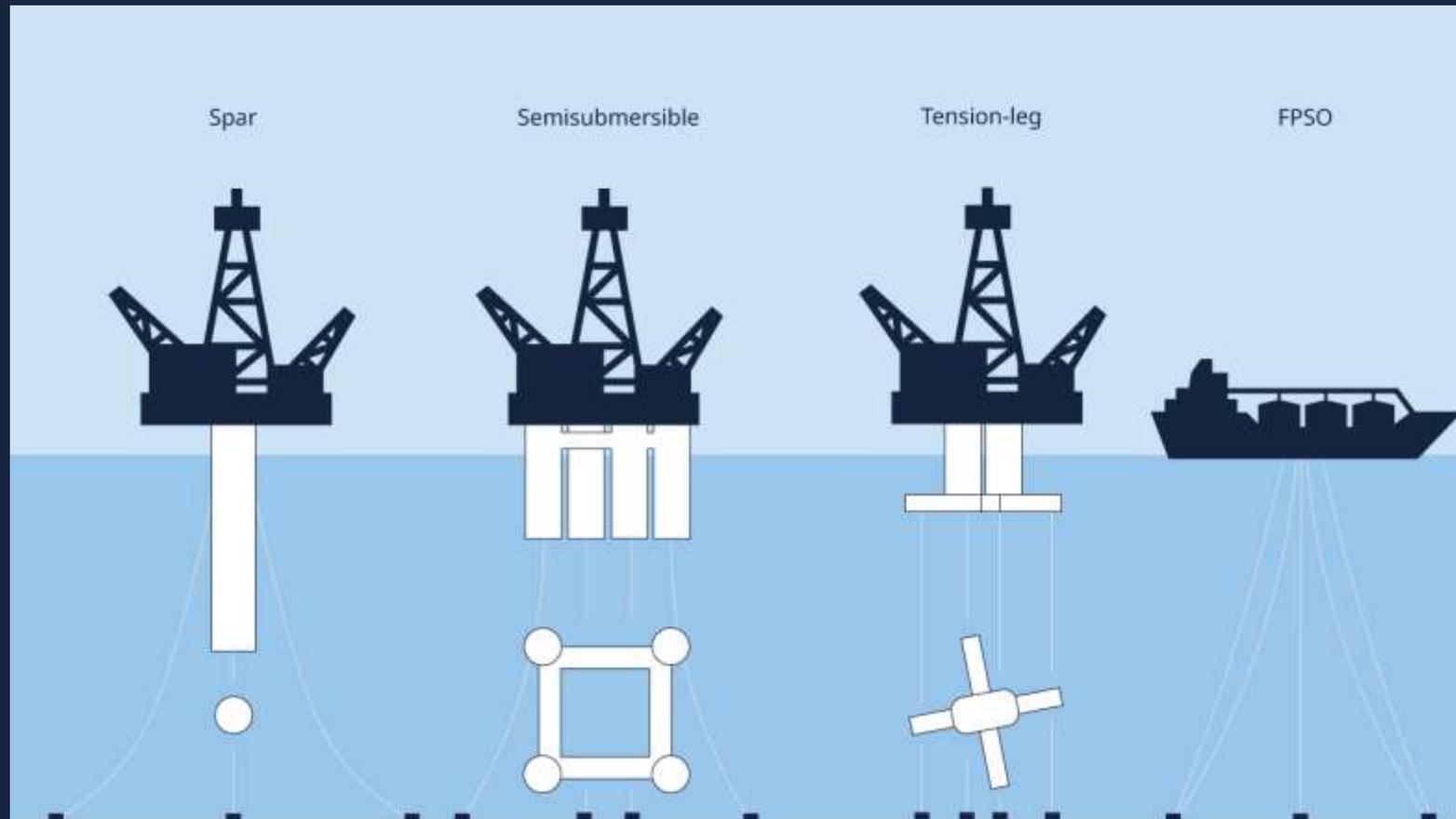
How does this lack of uniformity & legal uncertainty impact MORU projects’:

- Cost of capital?
- Insurability?
- Bankability?
- LCoE?



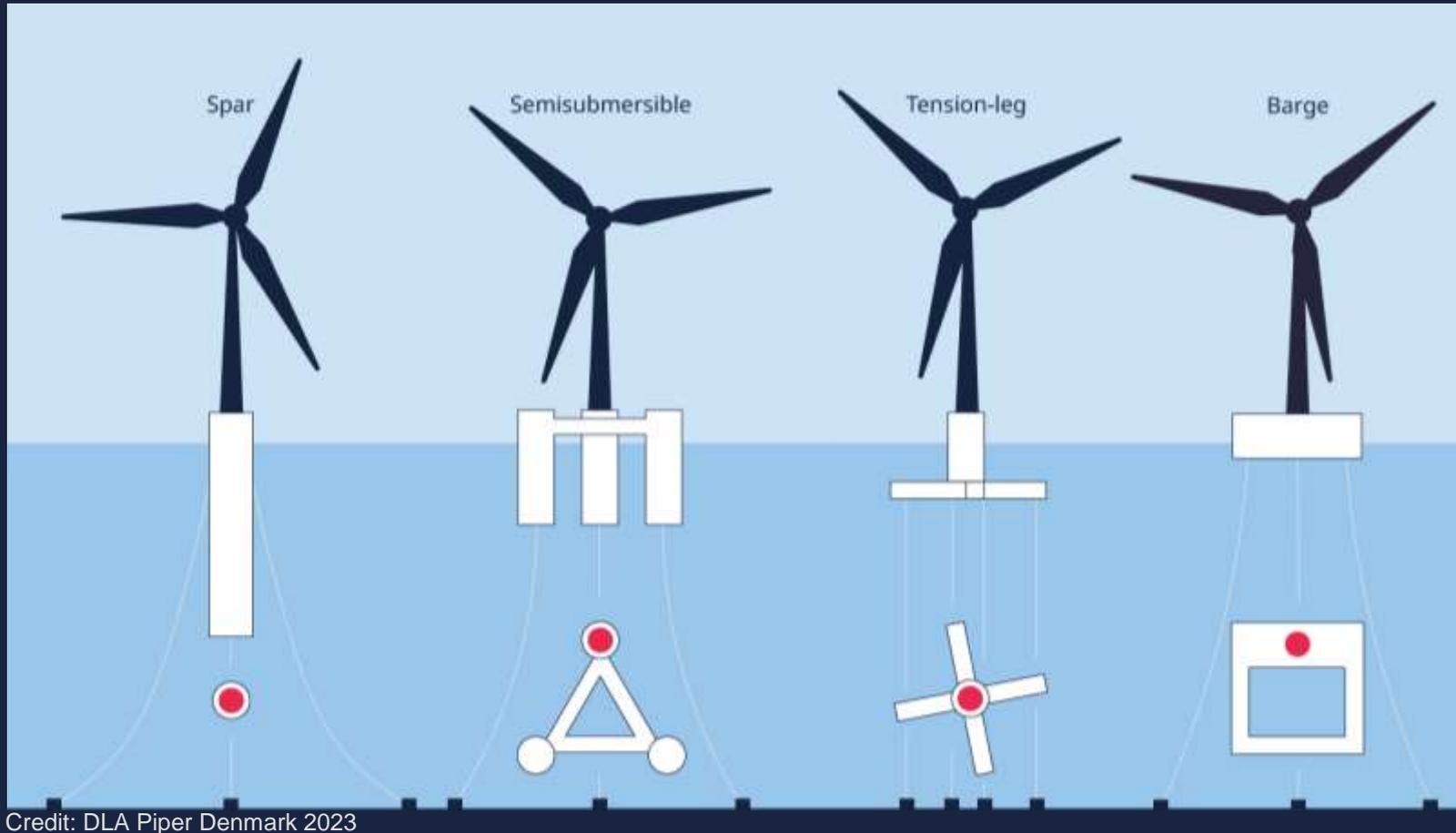
*Floating Wind Turbines:
Floating Towards the Future*

The Roots of Floating Wind (Hulls) Are Found in the Floating Facilities of the Offshore Oil & Gas Sector...

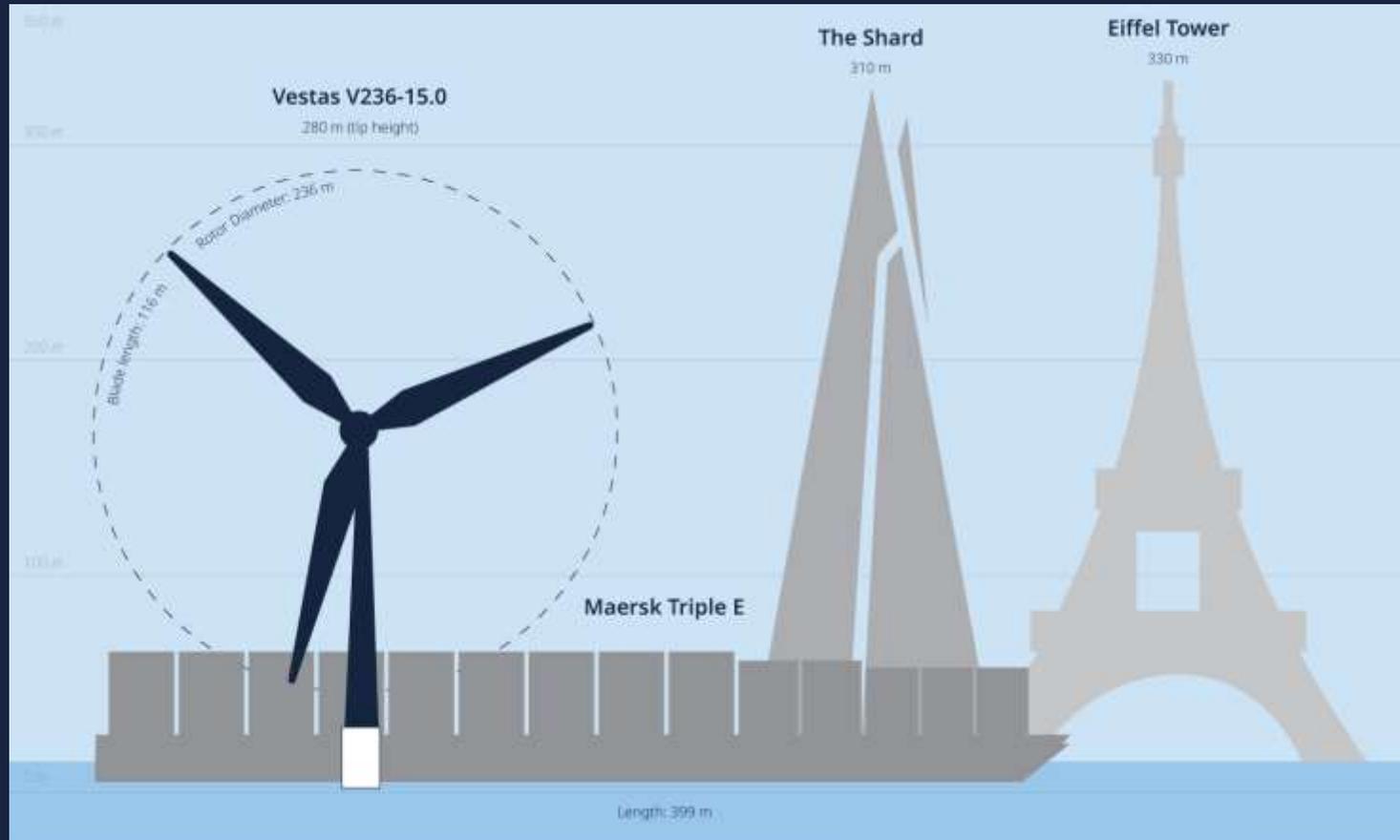


Credit: DLA Piper Denmark 2023

...Adapted for the Specifics of the Offshore Wind Sector.



How Big Are Floating Wind Turbines?



Credit: DLA Piper Denmark 2023

Now imagine a wind farm of 50...100...150...or even 200 FWTs.
1,5 GW wind farm = 100 x 15 MW WTGs, over ~500km²

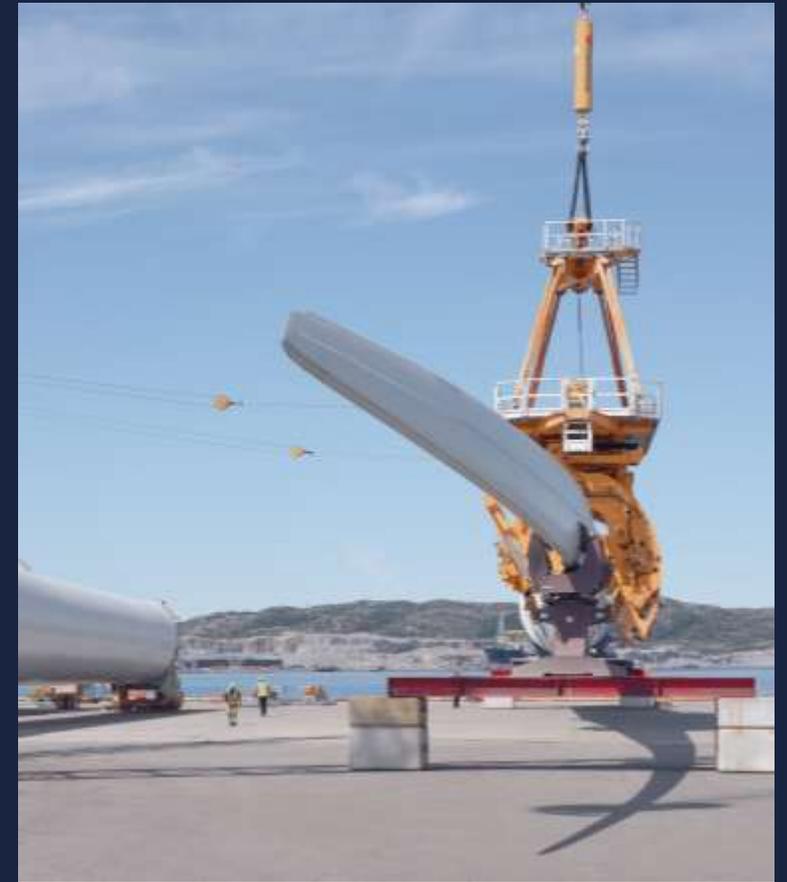
Unlike Fixed-bottom Turbines, the Assembly of Floating Wind Turbines is Typically in Harbour



Credit: Ole Jørgen Bratland / © Equinor



Credit: Jan Arne Wold / © Equinor



Credit: Ole Jørgen Bratland / © Equinor

Once mechanically complete, they are towed to site.
Consequently, Floating Wind Turbines must be mobile.

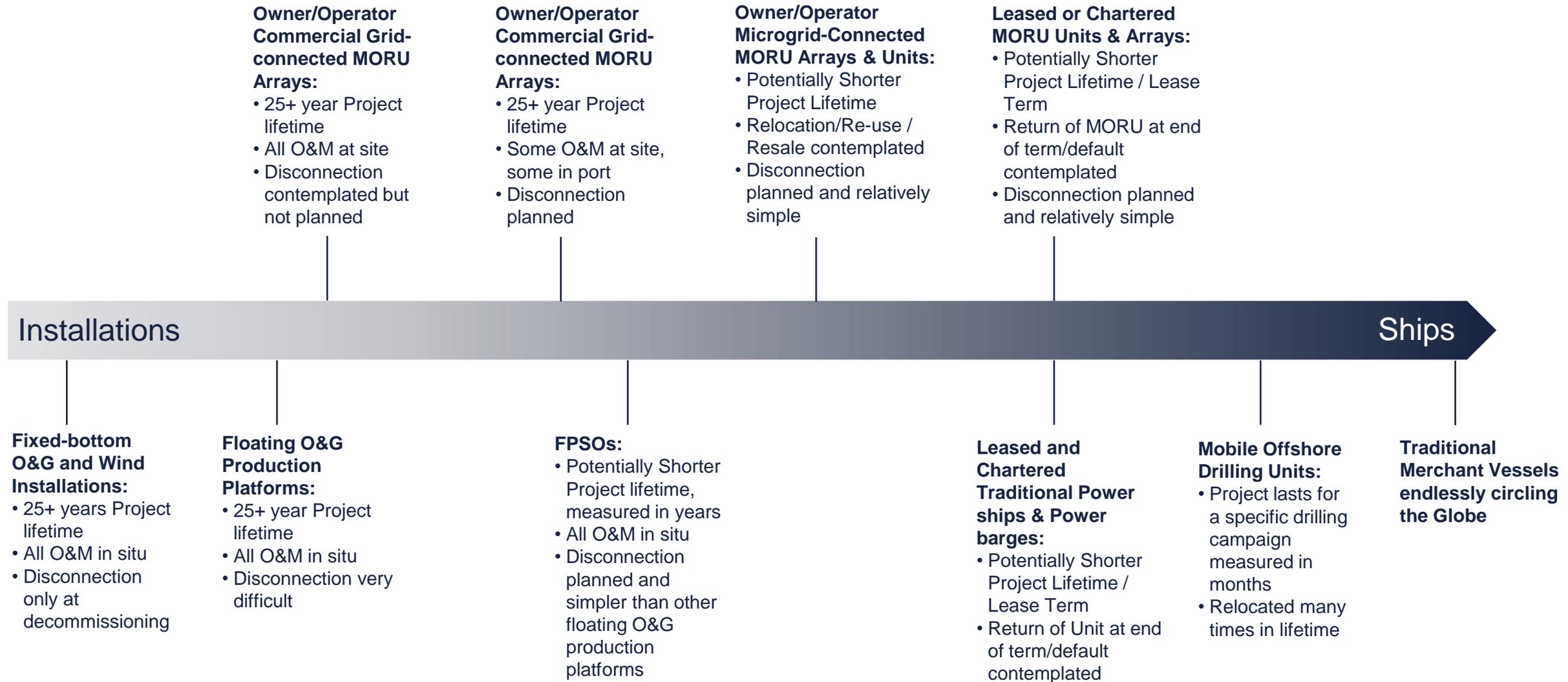


Credit: Photo of the Kincardine Offshore Wind Farm project courtesy of Principle Power



Credit: Jan Arne Wold / © Equinor

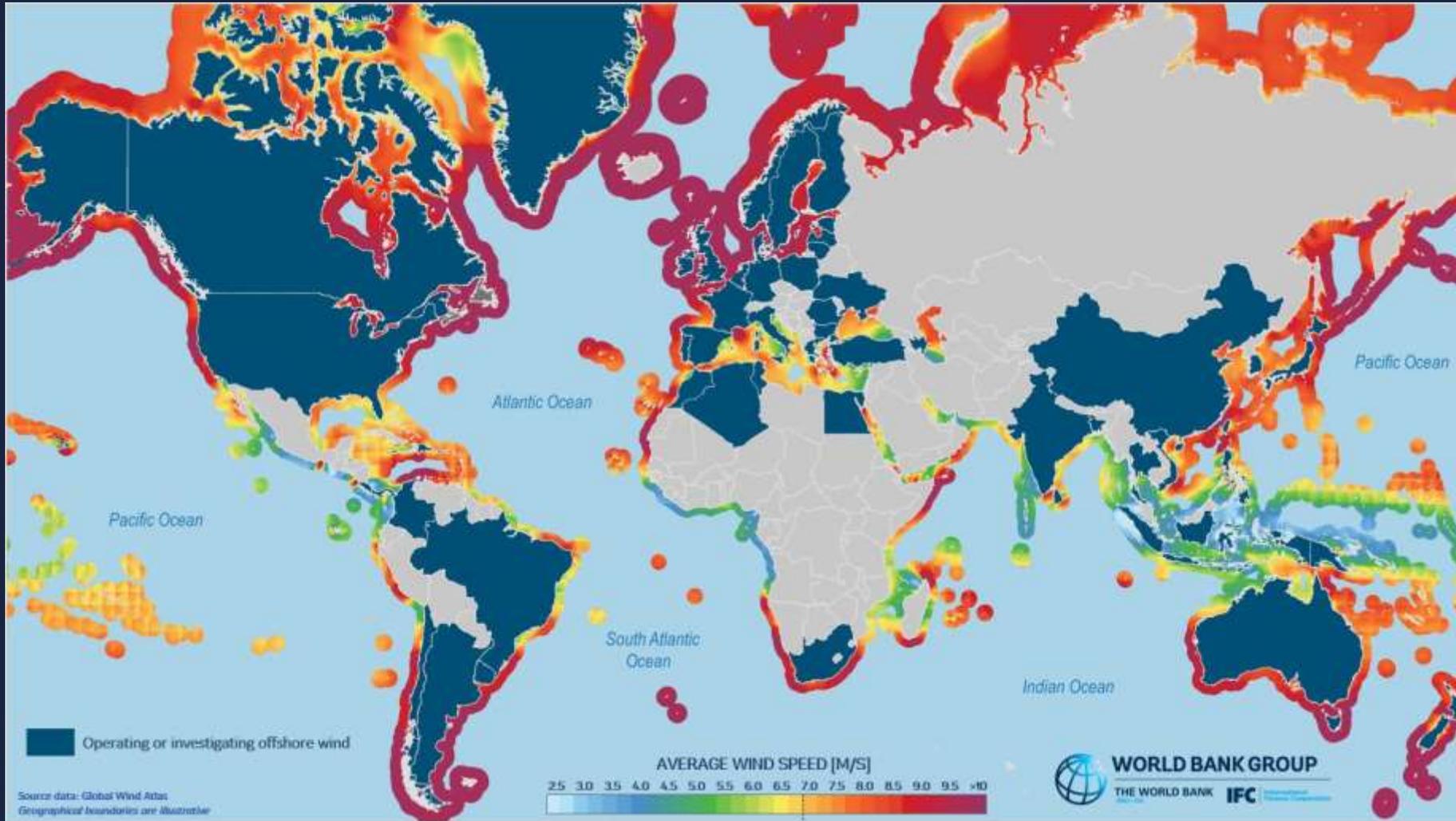
Is MORU Mobility Closer to an “Installation” or a “Ship”?



In its lifetime, a particular MORU might be:

- (i) built in a shipyard and registered under the laws of a Flag State;
- (ii) upon completion, re-registered in a second Flag State;
- (iii) towed through a third state's territorial sea and EEZ;
- (iv) moored and operated by its owner in a fourth state's EEZ;
- (v) serviced by offshore workers from fifth and sixth states;
- (vi) towed to a seventh state's port for repairs before returning to the fourth state's EEZ to resume operation;
- (vii) sold to a new owner, who repowers the MORU with updated generating equipment, prior to reflagging it in an eighth state;
- (viii) leased by that owner to an offshore developer/lessee, who deploys and operates the repowered MORU in a ninth state's waters for the remainder of its operational life; and
- (ix) decommissioned and broken up in a tenth state.

Where in the World Will You Find Floating Wind Turbines?



Rapidly increasing government ambitions

Some headlines...

- North Sea nations target 260 GW offshore in 'windiest locations on the globe'
- Germany, Denmark, Netherlands and Belgium sign €135 Billion Offshore Wind Pact
- Dutch set vast 70 GW offshore wind target 'to electrify large part of Netherlands'
- 'Cross border collaboration key': Baltic Sea countries target 20 GW offshore wind by 2030
- Norway Launches 30 GW by 2040 Offshore Wind Investment Plan
- Spain Targets up to 3 GW of Floating Wind by 2030
- US sets 15 GW Floating Wind Target for 2035
- South Korea unveils EUR 27 Billion Floating Wind Project
- Pilots to gear up 'hundred-fold growth' in Chinese floating wind power to 2026: Westwood
- China starts building a 1 GW floating offshore wind project in Hainan

Three Distinct Floating Wind subsectors evolving...

Large Arrays connected to onshore grids



Credit: Odfjell Oceanwind 2023

Small Arrays connected to offshore O&G Installations



Credit: Odfjell Oceanwind 2023

Offshore Power-to-X



Credit: HydePoint AS and Vergia AS

Completed or near-term auctions for floating wind

Country	Name	Year	GW	Source ⁶	Approx. Number of Floating Wind Turbines (based on a single 15MW WTG / floating wind turbine)	Approx. displacement tonnage (based on assumed steel semisubmersible foundation with 408 tons per MW) ⁷
United Kingdom	Scotwind (Floating)	2022	15.0	F,D	1,000	6,118,500
	INTOG	2022-23	6.2	B	413	2,528,980
	Celtic Sea	2023	4.0	A, B,D	267	1,631,600
United States	California	2022	4.6	B	307	1,876,340
	Oregon	2023	3.0	B	200	1,223,700
	Gulf of Maine	2024	?	B		
Korea (EBL License giving site exclusivity)	Ulsan	2021-22	6.7	B	447	2,732,930
France	Brittany	2022	0.25	B	17	101,975
	Mediterranean	2023	0.5	B	33	203,950
Japan	Goto City	2021	0.016	D	1	6,526
Norway	Utsira Nord	2023	1.5		100	611,850
Portugal	?	2023	10.0?		667	408,000

- The Netherlands has also announced a 3GW offshore floating solar auction

Estimates

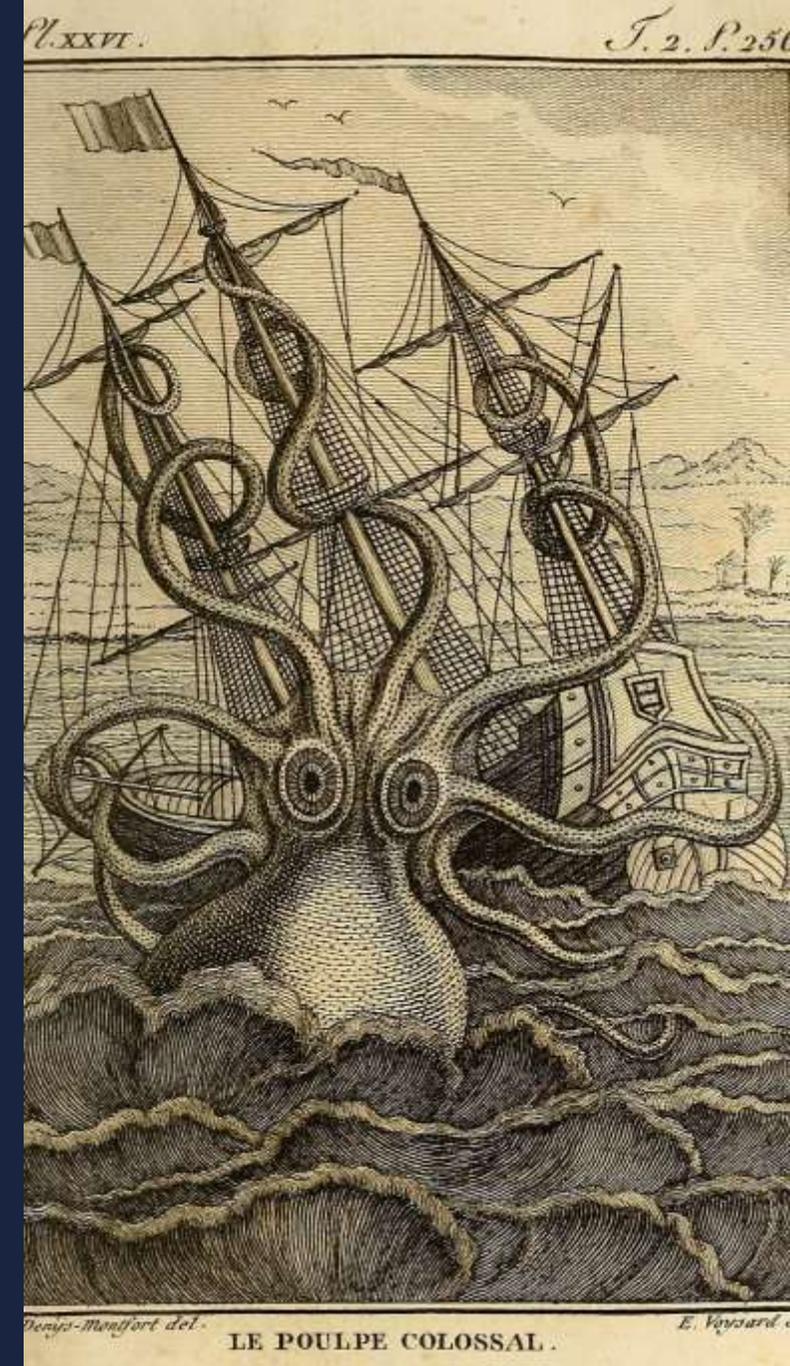
	2030				2035			
	GW	Source ⁶	Approx. Number of Floating Wind Turbines (based on a single 15MW WTG / floating wind turbine)	Approx. Displacement tonnage (based on assumed steel semisubmersible foundation with 408 tons per MW)	GW	Source ⁶	Approx. Number of Floating Wind Turbines (based on a single 15MW WTG / floating wind turbine)	Approx. Displacement tonnage (based on assumed steel semisubmersible foundation with 408 tons per MW) ^B
Bloomberg NEF	5.3	E	353	2,161,870	20.9	E	1,393	8,525,110
4C Offshore Operational	8.0	B	533	3,263,200	38.0	B	2,533	15,500,200
Rystad Energy Unclear stage	13.0	A	867	5,302,700	60.0	A	4,000	24,474,000
4C Offshore Installation commenced	14.0	B	933	5,710,600	46.0	B	3,067	18,763,400
GWEC Floating Offshore Wind Report (March 2022)	16.5	C	1,100	6,730,350				
GWEC Offshore Wind Report (June 2022)	18.9	D	1,260	7,709,310				
AVG	12.6		841	5,146,338	41.2		2,748	16,815,678
MEAN	13.5		900	5,506,650	42.0		2,800	17,131,800

Mobile Offshore Renewable Units and Maritime Conventions

Inevitably, Bad Things Will Happen...

- MORUs will be towed to foreign waters and ports
- Ownership and creditor rankings will be contested
- Contractual breaches and defaults will be committed
- Arrests will be attempted
- Bankruptcies will result
- Accidents and environmental incidents will occur
- Criminal acts will be (allegedly) perpetrated
- Collisions, allisions, and losses will happen
- The Kraken will be released...

But then what?



An Incomplete List of Potential Sources of MORU Claims and Disputes in the future...

Borrower defaults and bankruptcies

*Canadian floating wave power company went bankrupt last month

Disputes over Title and Priority of Registered Security Interests

Assertion of Maritime Liens

Arrests

Disputes over Civil Jurisdiction

Disputes over Criminal Jurisdiction

Collisions, Allisions, and Losses

*at least three MORUs have sunk so far

Environmental claims

Salvage claims

Abandonment

“The sea with its winds, its storms, and its dangers never changes and this demands a necessary uniformity of juridical regime.”

—Pasquale Stanislao Mancini, in his inaugural address to the University of Turin, 1860

Ship nomenclature as it relates to conventions

Is a MORU (legally) a “ship”, “vessel”, or something else, for purposes of each of the following conventions?



Credit: Photo of the Kincardine Offshore Wind Farm project courtesy of Principle Power

Registration of MORUs

UN Convention on the Law of the Sea

(1982) (168 Parties)

Description of craft within scope:

The terms “ship”, “artificial island” and “Installation” are used throughout UNCLOS, but are undefined.

Are MORUs currently within scope?

Probably, although exactly how is not clear.

Under Article 91, each state has the right to determine the conditions for registration of “ships” under its flag.

Article 60 grants the Coastal State the exclusive right to construct and to authorize and regulate the construction, operation, and use of “installations and structures” for the purposes of the production of energy from the water, currents, and winds, and, furthermore, grants the Coastal State exclusive jurisdiction over such installations and structures, including jurisdiction over customs, fiscal, health, safety, and immigration laws and regulations.



UN Convention on Conditions for Registration of Ships

1986 (15 Parties—NOT YET IN FORCE)

Description of craft within scope:

“any self-propelled seagoing vessel used in international seaborne trade for the transport of goods, passengers, or both with the exception of vessels of less than 500 gross registered tons.”

Are MORUs currently within scope?

No. They are neither self-propelled, nor used in the seaborne trade of goods or passengers.



Convention relating to Registration of Rights in Respect of Vessels under Construction

1967 (NOT YET IN FORCE)

Description of craft within scope:

“Vessel” is undefined.

Are MORUs currently within scope?

Maybe.



Notes



Credit: SBM Offshore

Mortgages of, and Maritime Liens, on MORUs

In rem non possessory collateral rights

Cape Town Convention on International Interests in Mobile Equipment

(2001) (85 Contracting States)

Description of craft within scope:

Under article 2(1), an “international interest” is an interest, constituted under Article 7, in a uniquely identifiable object of a category of such objects listed in paragraph 3 and designated in the Protocol.

Paragraph 3 references (i) airframes, aircraft engines, and helicopters; (ii) railway rolling stock; and (iii) space assets.

Are MORUs currently within scope?

No. Although there have been discussions of a hypothetical maritime asset protocol to the Cape Town Convention at various points, no such protocol have been adopted to date.



Notes:

Discussion of inclusion of maritime assets in the CTC have not progressed.

See the next slide for an estimate of the impact the Cape Town Convention has had on the economics of aircraft finance.

Uniform and Internationally Enforceable Legal Regimes (e.g. Binding Conventions) Reduce Legal Uncertainty and the Cost of Cross-border Capital



The Cape Town Convention & Aircraft Protocol's effect on cross-border aircraft finance

- The CTC creates a non-possessory international security interest in mobile assets covered by a Protocol
- Airlines in markets with uncertain collateral rights gain access to global secured debt markets at commercial basis
- Borrowers avoid some of the conventional country risk premium associated with that legal uncertainty
- Airlines in markets with uncertain collateral rights gain access to global secured debt markets at commercial basis

One analysis* estimated:

1. **A drop in lending costs of up to -250 basis points** (i.e. CTC secured vs *de facto* unsecured)
2. **An interest savings of between 13% and 20% per principal dollar borrowed** (depending borrowers' credit ratings, secured vs. unsecured interest rates, loan tenor, bullet payments, and discount rates before / after CTC ratification, etc.)
3. **Increases in approx. 10% in stock market valuation of publicly traded companies** post-CTC ratification
4. **A 20-year global cost savings of \$267-\$299 Billion on a forecasted \$2 Trillion global demand for aircraft**

*Saunders, Anthony and Srinivasan, Anand and Walter, Ingo, Innovation in International law and Global Finance: Estimating the Financial Impact of the Cape Town Convention (March, 29, 2006). Available at SSRN: <https://ssrn.com/abstract=894027> or <http://dx.doi.org/10.2139/ssrn.894027>

International Convention for the Unification of Certain Rules of Law relating to Maritime Liens and Mortgages

(1926) (21 Parties as of 2021)

Description of craft within scope:

“Vessel” is undefined.

Are MORUs currently within scope?

Maybe.



Notes

International Convention on Maritime Liens and Mortgages

(1993) (21 Parties)

Description of craft within scope:

MLM 1993 provides mutual recognition of mortgages, hypothecations, and other similar charges upon “sea-going vessels” (undefined) that are effected in accordance of the law of a party state where the “sea-going vessel” is registered, the register or instruments are open to public inspections and abstracts obtainable, and the register or instruments deposited specify the name and address of the beneficiary, or that it has been issued to bearer, (if required) the maximum amount secured and the date and other particulars necessary to determine ranking.

Are MORUs currently within scope?

Maybe.



Notes

Although the number of MLM 1993 parties is limited, it is worth noting that Norway is a Party which has registered a MORU (with a negative pledge) in its Ordinary Ship Register (and indicated the same was possible in the Norwegian International Ship Register). Norway, Denmark, Sweden, Spain, and China are all MLM 1993 parties active in the MORU sector.

Beijing Convention on the International Effect of Judicial Sales of Ships

(2022) (NOT YET IN FORCE)

Description of craft within scope:

“Ship” means any ship or other vessel registered in a register that is open to public inspection that may be the subject of an arrest or other similar measure capable of leading to a judicial sale under the law of the State of judicial sale”.

Are MORUs currently within scope?

Probably, although maybe an unequivocal yes is premature.



Notes

MORUs currently registered by Norway and the Republic of the Marshall Islands. Query whether they are subject to arrest leading to a judicial sale in a particular State?



Arrests of MORUs

Convention for the Unification of Certain Rules relating to Arrests of Sea-going Ships

(1952) (71 Parties—as of 2016)

Description of craft within scope:

“Ship” is undefined.

Are MORUs currently within scope?

Maybe.



Notes

International Convention on Arrests of Ships

(1999) (13 Parties)

Description of craft within scope:

“Ship” is undefined.

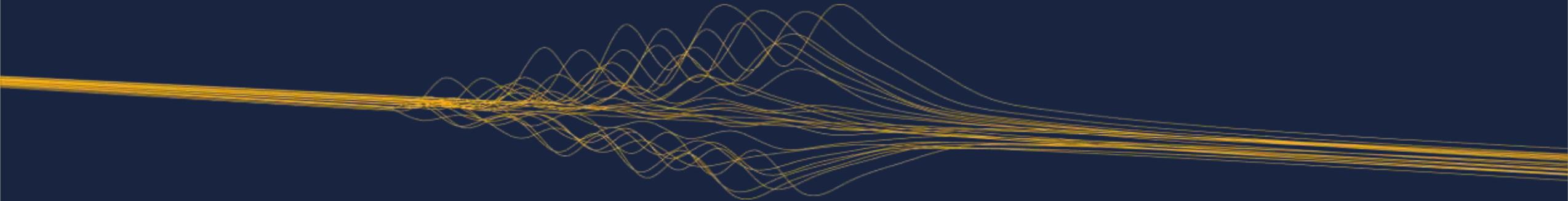
Are MORUs currently within scope?

Maybe.



Notes

Collisions, Allisions, and MORUs



Convention for the Unification of Certain Rules of Law with Respect to Collisions between Vessels

(1910) (81 Parties—as of 2016)

Description of craft within scope:

“Sea-going vessel” is undefined.

Are MORUs currently within scope?

Maybe.



Notes

International Convention for the Unification of Certain Rules Relating to Civil Jurisdiction in Matters of Collision

(1952) (63 Parties—as of 2016)

Description of craft within scope:

“Sea-going vessel” is undefined.

Are MORUs currently within scope?

Maybe..



Notes

Convention on the International Regulations for Preventing Collisions at Sea

(1972) (164 Contracting States)

Description of craft within scope:

“Vessel’ includes every description of water craft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water.”

Are MORUs currently within scope?

Yes, at least partially.



Notes:

There are various defined subcategories of “vessel” (e.g. “vessel not under command,” “vessel restricted in her ability to manoeuvre,” and “vessel constrained by her draught”) that are subject to special provisions and are particularly relevant to MORUs. Conversely, there are other defined subcategories of “vessel” (e.g. “power-driven vessel,” “sailing vessel,” “vessel engaged in fishing,” “vessel engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline”) subject to special provisions, which would not apply to MORUs.



Credit: © Equinor

Other Safety Rules and MORUs

International Convention for the Safety of Life at Sea

(1974) (168 Contracting States)

Description of craft within scope:

“Ship” is not defined.

Are MORUs currently within scope?

Maybe (partially).



Notes:

Unless expressly stated otherwise, the provisions of SOLAS do not apply to ships not on “international voyages,” which might exclude MORUs towed to offshore sites and moored indefinitely, or be subject to a Flag State exemption to the extent that such MORUs are not regularly engaged in “international voyages.” However, Chapter V (Safety of Navigation) applies to all ships (including non-propelled vessels) on any voyage (international or not) unless otherwise provided in that chapter or granted a Flag State exemption.

At the same time, it is important to remember that the vast majority of MORUs will be unmanned and unpropelled.

Chap. IX of SOLAS 1974, implementing International Safety Management Code (ISM Code)

(1974)

Description of craft within scope:

Although the original limited its application to MODUs and certain classes of ship, the revised ISM Code may now be applied to all ships.

Are MORUs currently within scope?

Maybe?



Notes:

The ISM Code and MODU Code, and subsequent amendments on the application of those to to mobile offshore drilling units, were not applicable to MORUs. However, the revision suggests it *may* be applied to all “ships”, begging the question of whether and to what extent the ISM Code, LL 1966 and SOLAS should be extended to MORUs.

Chap. XI-2 of SOLAS 1974, implementing International Ship & Port Facility Security Code (ISPS Code)

(1974)

Description of craft within scope:

The ISPS Code forming part of Chapter XI-2 of SOLAS includes MODUs within the meaning of the baseline SOLAS term “ship,” but does not mention MORUs.

Are MORUs currently within scope?

No. Even for MODUs, the requirement to be self-propelled remains.



Notes

Code for the Construction and Equipment of MODUs (MODU Code)

(2009)

Description of craft within scope:

“Mobile offshore drilling unit”...[(MODU) or unit] is a vessel capable of engaging in drilling operations for the exploration for or exploitation of resources beneath the seabed such as liquid or gaseous hydrocarbons, sulphur or salt.

Are MORUs currently within scope?

No.



Notes:

It seems likely that some Flag States may see fit to apply the MODU Code *mutatis mutandis* to MORUs (at least on an ad hoc basis in the absence or more specific MORU guidance). Query whether there is a need for a MORU Code.



End of Life Issues: Salvage, Wreck Removal, and Recycling of MORUs

International Convention on Salvage

(1989) (77 Contracting States)

Description of craft within scope:

“Vessel means any ship or craft, or any structure capable of navigation.”

Are MORUs currently within scope?

Yes.



Notes:

Art. 3 expressly states that the Salvage Convention “shall not apply to fixed or floating platforms or to mobile offshore drilling units *when such platforms or units are on location engaged in the exploration, exploitation or production of sea-bed mineral resources.*”

Presumably, therefore it does apply to MORUs as a form of platform or unit otherwise engaged.

TBD—whether MORUs providing power to offshore oil and gas facilities are (indirectly?) “engaged in the production of sea-bed mineral resources” for purposes of this convention?

International Convention on Removal of Wrecks

(2007) (65 Contracting States)

Description of craft within scope:

“Ship” means a seagoing vessel of any type whatsoever and includes hydrofoil boats, aircushion vehicles, submersibles, floating craft and floating platforms, except when such platforms are on location engaged in the exploration, exploitation or production of seabed mineral resources.”

Are MORUs currently within scope?

Yes.



Notes

Given the similar terminology, the same logic of the Salvage Convention on the prior page applies to the Wreck Removal Convention.

International Convention for the Safe and Environmentally Sound Recycling of Ships

(2009) (NOT YET IN FORCE)

Description of craft within scope:

“Ship” means a vessel of any type whatsoever operating or having operated in the marine environment and includes submersibles, floating craft, floating platforms, self elevating platforms, Floating Storage Units (FSUs), and Floating Production Storage and Offloading Units (FPSOs), including a vessel stripped of equipment or being towed.

Are MORUs currently within scope?

Yes.



Notes:

This Convention shall not apply to ships of less than 500 GT or to ships operating throughout their life only in waters subject to the sovereignty or jurisdiction of the State whose flag the ship is entitled to fly. However, each Party shall ensure, by the adoption of appropriate measures, that such ships act in a manner consistent with this Convention, so far as is reasonable and practicable.



Credit: Odfjell Oceanwind 2023

Limitations of Liability and MORUs

Convention on Limitation of Liability for Maritime Claims

(1976) (56 Contracting States)

Description of craft within scope:

“Ship” is undefined.

Are MORUs currently within scope?

Maybe.



Notes:

LLMC 1976 does not apply to “Floating platforms constructed for the purpose of exploring or exploiting the natural resources of the sea-bed or the subsoil thereof.”

However, is it clear enough (ie. bankable) that a MORU would certainly be considered a “ship” for purposes of LLMC 1976 simply because it does not fall the exclusion?

Protocol of 1996 to Amend the Convention on Limitation of Liability for Maritime Claims

(1996) (63 Parties)

Description of craft within scope:

As per LLMC 1976.

Are MORUs currently within scope?

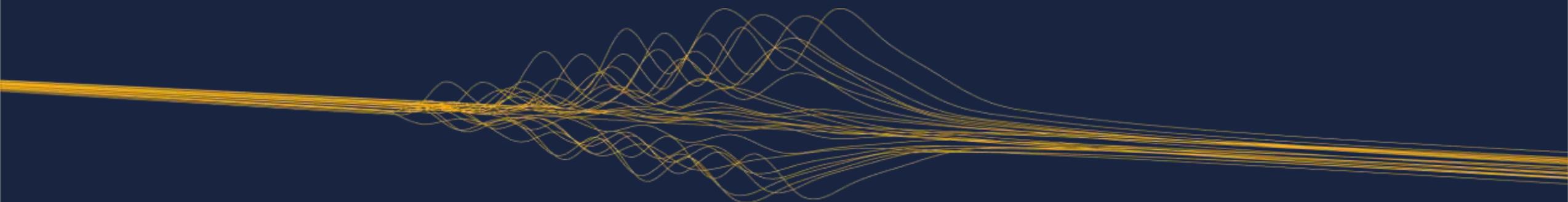
Maybe.



Notes:

As per LLMC 1976.

Environmental Liabilities and MORUs



International Convention on Civil Liability for Bunker Oil Pollution Damage

(2001) (105 Contracting States)

Description of craft within scope:

“Ship” means any seagoing vessel and seaborne craft, of any type whatsoever.”

Are MORUs currently within scope?

Yes.*



Notes:

MORUs will likely hold some amount of petroleum products on board, even though not self-propelled.

* Art. 6 of BUNKER 2001 assumes an applicable limitation of liability under a national or international regime [e.g. LLMC 1976/1996], but see those slides...

Convention on Liability for Damage in Connection with the Carriage of Hazardous & Noxious Substances at Sea (1996) (NOT YET IN FORCE)

Description of craft within scope:

“Ship means any seagoing vessel and seaborne craft, of any type whatsoever.”

Are MORUs currently within scope?

Maybe.



Notes:

HNS 1996 defines “Hazardous and noxious substances” by reference to “(a) any substances, materials and articles carried on board a ship *as cargo*,...”

Are the hazardous and noxious substances carried by a MORU *cargo*? In the case of a stationary MORU producing, e.g., green ammonia, is that *product* or *cargo*?



Credit: Photo of the Kincardine Offshore Wind Farm project courtesy of Principle Power

Criminal Jurisdiction and MORUs

Convention for the Unification of Certain Rules Relating to Penal Jurisdiction in Matters of Collisions or Other Incidents of Navigation

(1952) (68 Contracting states)

Description of craft within scope:

“Sea-going ship” is undefined.

Are MORUs currently within scope?

Maybe.



Notes:

This convention doesn't really contemplate mixed international crews stationed offshore in a country's EEZ for long periods. Conversely, most MORUs would be unmanned and stationary in operation (and its application potentially less relevant). See also UNCLOS Part V, and Art. 27.

Convention for the Suppression of Unlawful Act against the Safety of Maritime Navigation

(1988) (166 Contracting States)

Description of craft within scope:

“Ship” means a vessel of any type whatsoever not permanently attached to the sea-bed, including dynamically supported craft, submersibles, or any other floating craft.”

Are MORUs currently within scope?

Maybe.



Notes:

Is a MORU “permanently attached to the sea-bed” for purposes of SUA 1988? Relative to what? See next slide on SUA PROT 1988.

Protocol for the Suppression of Unlawful Acts against the Safety of Fixed Platforms located on the Continental Shelf

(1988) (156 States)

Description of craft within scope:

Extends application of Art. 5,7, and 10-16 of SUA 1988, *mutatis mutandis*, in relation specified offences “on board or against fixed platforms located on the continental shelf”. In this context, “fixed platform’ means an artificial island, installation or structure permanently attached to the sea-bed for the purpose of exploration or exploitation of resources or for other economic purposes.”

Are MORUs currently within scope?

Maybe.



Notes:

Is a MORU “permanently attached to the sea-bed” for purposes of SUA PROT 1988? Relative to what? See previous slide on SUA 1988.



Credit: SBM Offshore

UNFCCC, Paris Agreement NDCs, and (flagged) MORUs

Summary

Convention	In force?	Applicable
UNCLOS		
Registration of ships 1986	No	
Vessels under construction 1967	No	
Maritime liens and mortgages 1926		
Maritime liens and mortgages 1993		
Judicial sales 2022	No	
Arrest of ships 1952		
Arrest of ships 1999		
Collision 1910		
Civil Jurisdiction (collisions) 1952		
COLREG 1972		
SOLAS 1974		

Convention	In force?	Applicable
ISM Code		
ISPS Code		
MODU Code		
Salvage 1989		
Wreck removal 2007		
Ship recycling 2009	No	
LLMC 1976		
LLMC PROT 1996		
Bunker 2001		
HNS 1996	No	
Penal jurisdiction 1952		
SUA 1988		

Three possible routes to bring MORUs into the traditions of Maritime Law



Amend the existing Maritime Conventions

- **Pros**
 - Would limit emergence of divergent threads in how traditional ships and MORUs are treated.
 - Greatest familiarity: the Conventions are known to maritime bar, banks.
- **Cons**
 - Amendment processes vary.
 - Convention Parties vary widely
 - No “grand bargain” between stakeholders possible.

Draft a new Multi-topic MORU Convention from Scratch

- **Pros**
 - Not limited by prior outcomes
 - “Grand Bargain” possible
 - Either you are in or you are out
- **Cons**
 - Completely unfamiliar to bar, banks
 - Takes the greatest amount of effort, with potentially least chance of success.
 - Repeats work already done.

Build on the Work the CMI has already done

- Prior CMI work on a O&G MOU Convention:
 - From late 1970s to 2001
- Adapt CMI work to reflect renewables specifics:
 - e.g. environmental risk less
- **Pros**
 - Not starting from scratch
 - Within existing traditions = more familiar to maritime bar, banks
 - Least amount of effort short of nothing.

The CMI's prior work and MORUs

Topic		Rio 1977 ¹	Norwegian Alternative 1977 ²	Sydney 1994 ³	Vancouver 2001 ⁴	Relevant to MORUs?
Nationality/Registration		Yes	Yes	Yes	Yes	Yes
Liens		Yes	Yes	Yes	Yes	Yes
Mortgages		Yes	Yes	Yes	Yes	Yes
Vessels under construction		Yes		Yes		Yes
Arrest		Yes	Yes	Yes	Yes	Yes
Other creditors' remedies					Yes	Yes
Judicial Sales						Yes
Collisions		Yes	Yes	Yes	Yes	Yes
Civil jurisdiction					Yes	Yes
Penal jurisdiction					Yes	Yes
Removal					Yes	Yes
Salvage		Yes	Yes	Yes	Yes	Yes
Safety					Yes	Yes
Limitations of Liability		Yes	Yes	Yes	Yes	Yes
Liability for pollution		Yes	Yes	Yes	Yes	Yes
Limitation Fund					Yes	Yes
Apportionment of liability					Yes	Yes
Financial responsibility / maintenance of Insurance					Yes	Yes

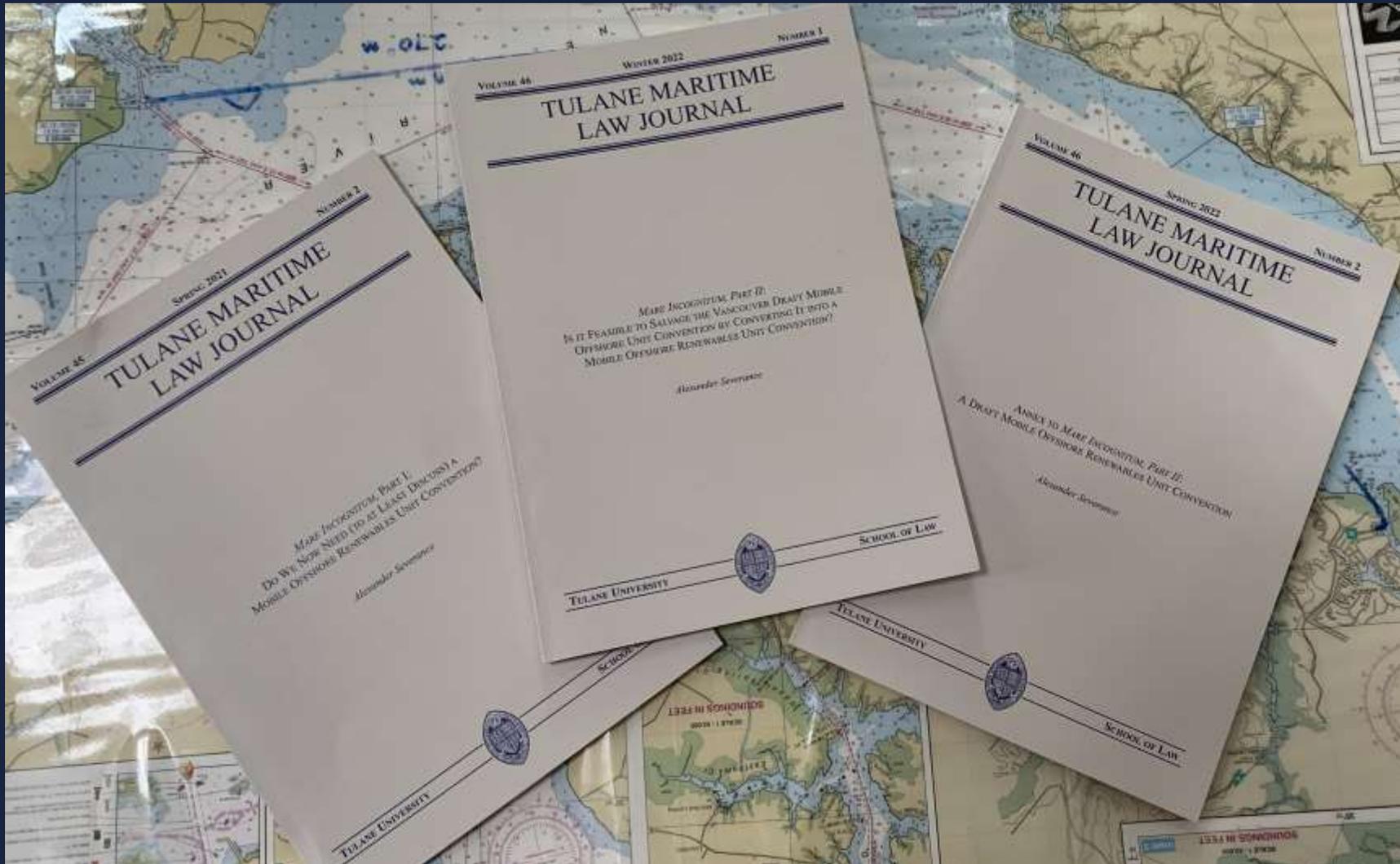
1 Under the Rio draft, Convention parties which were also parties to certain maritime topical conventions would agree amongst themselves to apply those referenced conventions to "craft" as well.

2 Under the Norwegian alternative, "craft" shall be "subject to the rules applicable to sea-going ships under the law of a State Party to this Convention", (i.e. the parties would treat MOUs as vessels as they would under their own law (including international obligations)).

3 Under the Sydney draft, Convention parties which were also parties to certain maritime topical conventions would agree amongst themselves to apply those referenced conventions to "craft" as well, and if not a party to those conventions, apply State Party law applicable to vessels generally.

4 The Vancouver draft ended the incorporation of topical convention by reference approach as unworkable, and provided stand-alone substantive provisions governing Offshore Units on selected topics.

If you would like to read a bit more...



Thank you



Appendix 1 – Briefly about DLA Piper’s Offshore Wind Experience

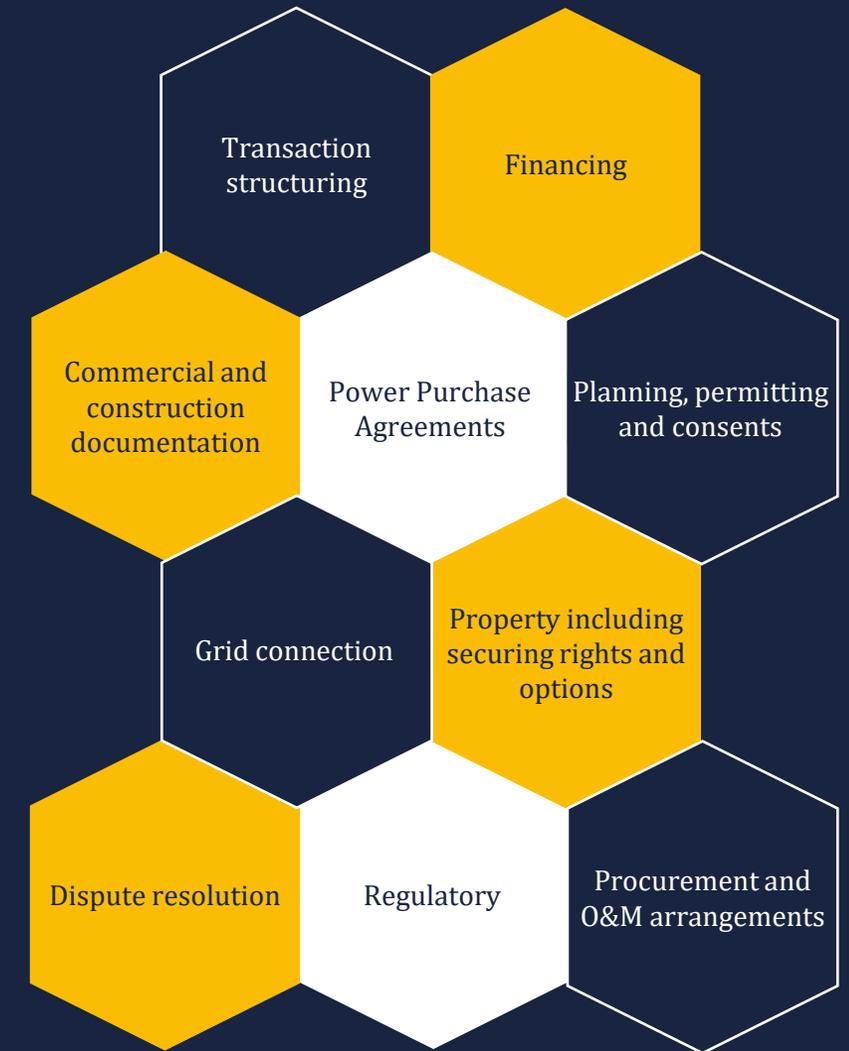
Our Offshore Wind Practice

We hold knowledge and expertise from our experience working on offshore wind transactions across the entire lifecycle, from the development and pre-development phases through construction and operations. We also advise lenders and borrowers on financings and refinancings of wind assets around the globe.

Clients rely on the depth and breadth of our team to provide market leading advice on the entire spectrum of legal issues which can arise on any offshore wind investment. Details on the projects we have worked on can be found within this presentation.

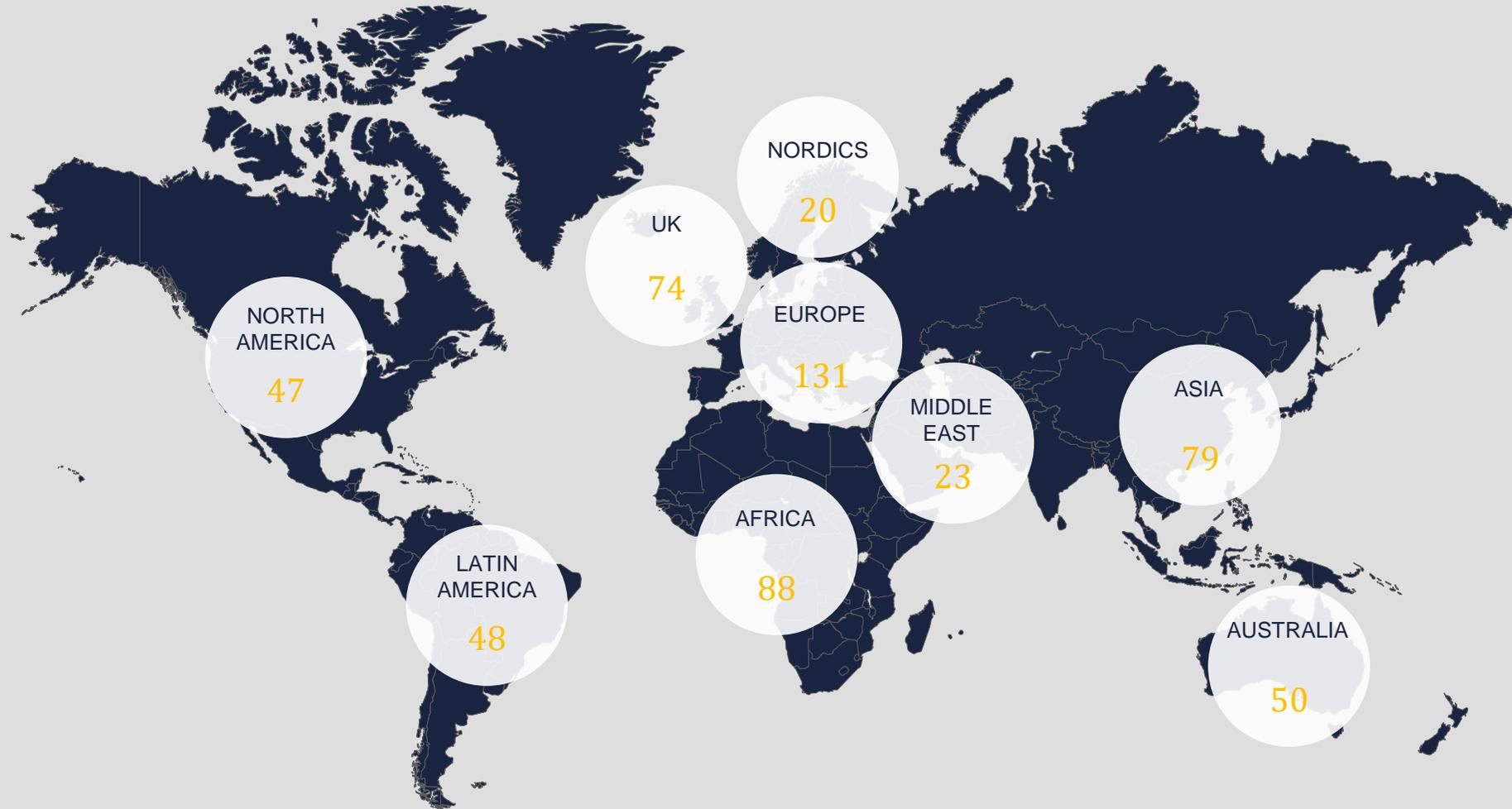
We frequently work on cutting edge deals in the wind industry which will drive the market forward. Recent mandates include advising clients on pre-auction joint venture arrangements, acquisitions, procurement strategy and processes, project contract development and negotiations, financings and refinancings. Combined with our global renewables practice, we offer investors benefit of our experience to structure an array of tried and tested solutions to any issues arising from their investments in offshore wind.

We work on cutting edge deals in the fixed and floating offshore wind sectors which will drive the market forward.

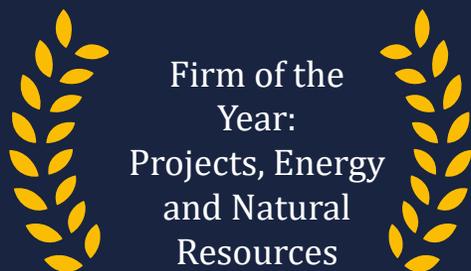
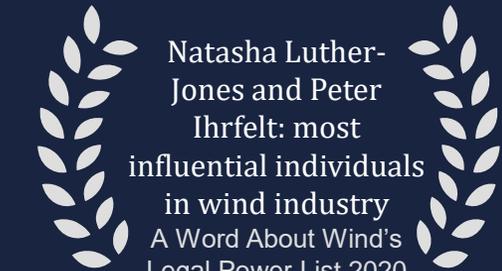


Our Global Footprint

We have over 400 energy lawyers in 40 countries, we can support you anywhere you need it



Awards and Recognition



Alexander Severance

Special Counsel, Denmark

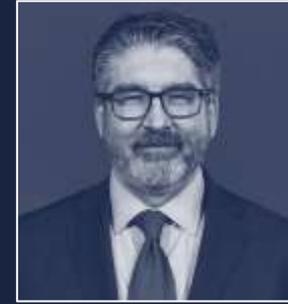
Alexander Severance's energy and renewables practice has a special focus on fixed and floating offshore wind projects. He has worked extensively in the offshore wind space since 2011.

Prior to joining DLA Piper, Alex was a Lead Counsel with **Siemens Gamesa Renewable Energy A/S**, where he managed a multinational team of seven qualified attorneys. He also provided primary legal support and negotiated framework agreements, turbine supply agreements, service and maintenance agreements and related supporting agreements for the leading offshore wind turbine OEM's largest, most complex, innovative, and award-winning wind projects around the globe

Alex regularly writes and publishes on a variety of legal topics related to the offshore wind sector.

Selected highlights

- Multiple Turbine Supply Agreements and Service and Warranty Agreements for award-winning offshore wind projects totaling more than 6,000 MW of nameplate capacity, including projects in in the UK, the US, the Netherlands, Germany, Norway, and Taiwan, including:
 - **Hornsea 1, Walney Extension East, Racebank, Westermost Rough** (UK)
 - **Bay State 1** (including Southfork, Revolution, and Sunrise projects) (USA)
 - **Borssele 1&2** (NL)
 - **Galloper** (UK)
 - **Gode Wind 1 &2** (DE),
 - **Westermeerwind** (NL)
 - **Hywind Tampen** (NO)
 - and others.
- Multi-year, multi-project supply and service framework agreement for fixed-bottom wind turbines in the United Kingdom.
- Multi-year, multi-project, global turbine supply-only framework agreements.
- Multi-year, multi-project supply and service framework agreement for floating wind turbines
- Multi-year, multi-project, multi-jurisdictional supply and service framework agreement



Alexander Severance

Special Counsel

Aarhus

T: +45 33 34 02 97

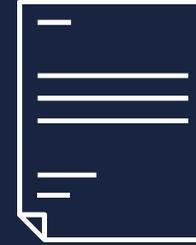
M: +45 29 17 68 23

alexander.severance@dk.dlapiper.com

Education

- LL.M., New York University, 2008
- LL.M., National University of Singapore, 2008
- J.D., Boston College, 2002
- B.A., Texas A&M University, 1997

Bibliography



1 Saunders, Anthony and Srinivasan, Anand and Walter, Ingo, Innovation in International Law and Global Finance: Estimating the Financial Impact of the Cape Town Convention (March 29, 2006). Available at SSRN: <https://ssrn.com/abstract=894027> or <http://dx.doi.org/10.2139/ssrn.894027>

2 Severance, Alexander and Sandgren, Martin, Flagging the Floating Turbine Unit: Navigating Towards a Registerable, First-Raking Security Interest in Floating Wind Turbines (November 1, 2014). Tulane Maritime Law Journal, Vol. 39, No. 1, 2014, Available at SSRN: <https://ssrn.com/abstracts=3694505>

3 Severance, Alexander, Mare Incognitum, Part I: Do We Now Need (to at least Discuss) a Mobile Offshore Renewables Unit Convention?, Tulane Maritime Law Journal Vol. 45, No. 2, (2021), Available at SSRN: <https://ssrn.com/abstract=3695041> or <http://dx.doi.org/10.2139/ssrn.3695041>

4 Severance, Alexander, Mare Incognitum, Part II: Is it Feasible to Salvage the Vancouver Draft Mobile Offshore Unit Convention by Converting It into a Mobile Offshore Renewables Unit Convention? (February 3, 2021). 46(1) Tulane Maritime Law Journal 1 (2022), Available at SSRN: <https://ssrn.com/abstract=3898433>

5 Severance, Alexander, Annex to Mare Incognitum, Part II: A Draft Mobile Offshore Renewables Unit Convention (August 3, 2021). 46(2) Tulane Maritime Law Journal 245 (2022), Available at SSRN: <https://ssrn.com/abstract=3898441>

Bibliography

- 6
- A Rystad Energy, Floating offshore wind: accelerating growth
 - B 4COffshore, Floating Wind Progress Update:H2 2022
 - C GWEC, Floating Offshore Wind—A Global Opportunity
 - D GWEC, Global Offshore Wind Report 2022
 - E BloombergNEF, Wind-10 Predictions for 2022
 - F WindEurope (<https://windeurope.org/newsroom/press-releases/Scotland-awards-seabed-rights-for-massive-amounts-of-offshore-wind-most-of-it-floating/>)
 - G <https://auroraer.com/media/upcoming-subsidies-key-to-unlocking-Italian-offshore-wind-potential/>
-

7 Please note that the assumed tons of displacement per MW in the table above and the text of this paper are meant only as a rough proxy for the purposes of a high level understanding of potentially registerable tons, and is based on the following general assumptions: (i) most floating wind turbines will consist of a single WTG mounted on a steel semi-submersible foundation (a common design); and (ii) 408 MW per MW (based on a simple average of the listed weight per MW (if any) for steel semisubmersible floating wind turbines specified in the “Technology Tracker” slide (p.39) in 4C’s report). These assumptions in no way preclude the use of other floating wind turbine hull shapes (including spars, tension leg platforms, or barges) or hulls made of other materials (e.g. concrete) which would inevitably result in different figures.

(From B above)



DLA Piper is a global law firm operating through various separate and distinct legal entities. Further details of these entities can be found at www.dlapiper.com.

This publication is intended as a general overview and discussion of the subjects dealt with, and does not create a lawyer-client relationship. It is not intended to be, and should not be used as, a substitute for taking legal advice in any specific situation. DLA Piper will accept no responsibility for any actions taken or not taken on the basis of this publication. This may qualify as “Lawyer Advertising” requiring notice in some jurisdictions. Prior results do not guarantee a similar outcome.

Copyright © 2020 DLA Piper. All rights reserved.