London Wind Academy

NIORD

A Norwegian Hull Club company

Panel Discussion

Insuring ClubFloat

Presenters

- Moderator

Bin Wang	Chief Underwriting Officer, NIORD; ClubFloat Insurance Responsible

- Panel

Daniel Sim	Executive Director, Aon
Jonny Allen	Partner, McGill and Partners
Robert Bates	Partner, NARDAC
Steven Munday	Global Renewable Energy Leader, WTW

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Towage catastrophe

If a “total loss” is suffered during tow-out, how much can ClubFloat reasonably expect to claim from insurers?

Asset	Total Supply Cost (EUR):	Quantity:	Cost/WTG # (EUR)
Wind Turbine Generator (WTG) - Turbine Supply Agreement (TSA):	600 000 000	30	20 000 000
Foundation (incl Station Keeping System (SKS))	930 000 000	30	31 000 000
Inter-Array Cables (IAC) (incl T&I)	78 000 000	65	1 200 000
Offshore Substation Incl SKS with T&I	525 000 000		
Offshore Export Cable (incl T&I): 2 x 220kV HVAC - 2x75km Incl 1x 220kv HVAC submarine cable (spare) - 2.5km (Dynamic section) Incl 1x 220kv HVAC submarine cable (spare) - 2.5km (static section)	231 000 000	150	1 540 000
Onshore Export Cable (incl installation)	10 000 000	10	1 000 000
Onshore Substation	125 000 000		
Other	50 000 000		
Total:	**2 549 000 000**	30	**84 966 667**

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Towage catastrophe

A. EUR 51 000 000, less station keeping system (SKS) value for one wind turbine generator (WTG).

B. EUR 84 966 667.

C. A or B, plus potential additional amounts relating to additional coverages, costs, escalation, etc.

D. As much as EUR 2 549 000 000 plus potential additional amounts as per C above but may be limited by a Loss Limit/Combined Single Limit.

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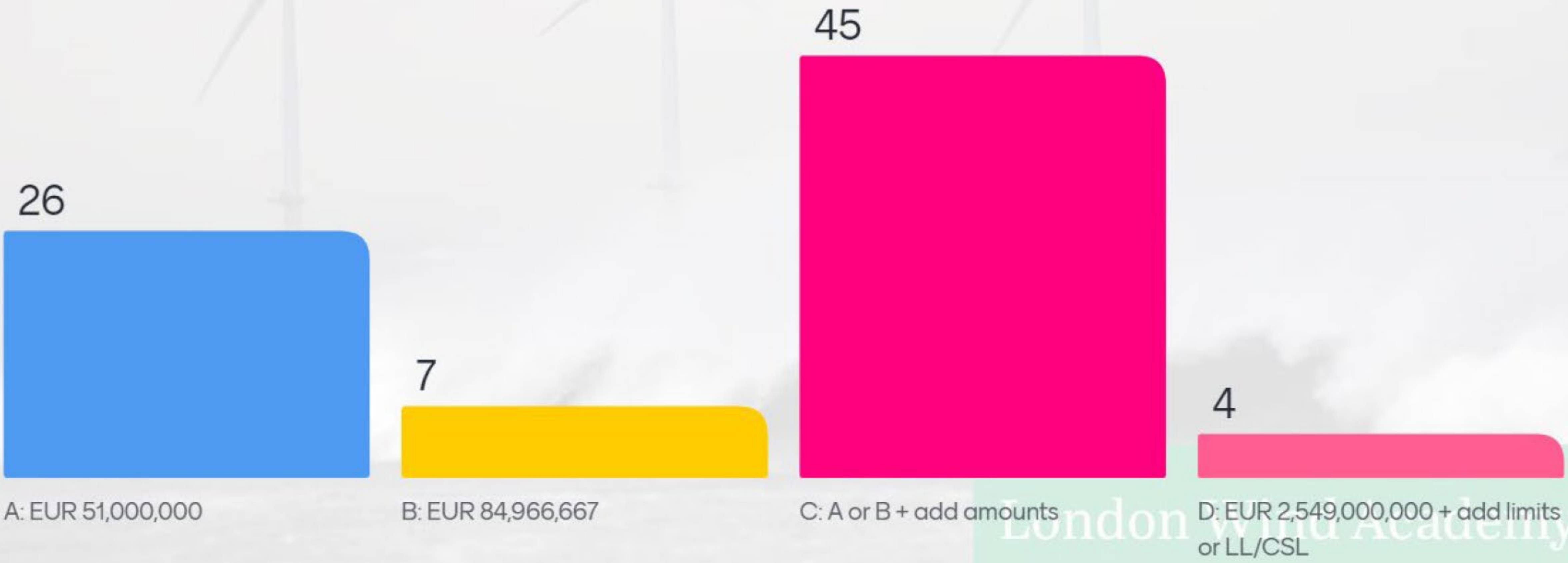
Towage catastrophe: How much can ClubFloat reasonably expect to claim from insurers?



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Moderator’s Commentary

- Clients expect a contract of indemnity.
- Cost of replacement of a unit “a la carte” certain to be higher than cost per unit when contracting in bulk and establishing the CAPEX.
- Underwriters, however, may prefer to work off an agreed unit price, with potential for additional coverages/cost increases conceptualized as a discussion from a starting point at the unit level.
- THEME: Offshore wind farms are serial in nature. Insurance concepts working at the unit level vs. at the farm/project level should be carefully understood and evaluated.

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Period extension

Time is an imperfect proxy for quanta of risk. We all know that delays may occur, requiring extension of the Construction All Risk (CAR)/Delay In Start-Up (DSU) insurances. How should such extensions be priced in terms of Additional Premium (AP)?

Period extension

A. No AP! Underwriters have already charged for the entire quanta of construction risks. The fact that the same quanta of risk now will take longer is irrelevant for premium purposes.

B. Less than pro rata AP. Understand that there is a need for AP, but insurance costs as a % of CAPEX is getting out of hand. The AP charged should be modest at best.

C. Pro rata AP. Additional time on risk is additional time on risk. The premium charged to date was for a stated period of coverage. Any additional time on risk should be charged at pro rata AP.

D. More than pro rata AP. Extensions at or near construction completion means more time on risk at maximal exposures and any incidents are more likely to result in a DSU claim as well. The risk is more heightened than before which merits AP at greater than pro rata.

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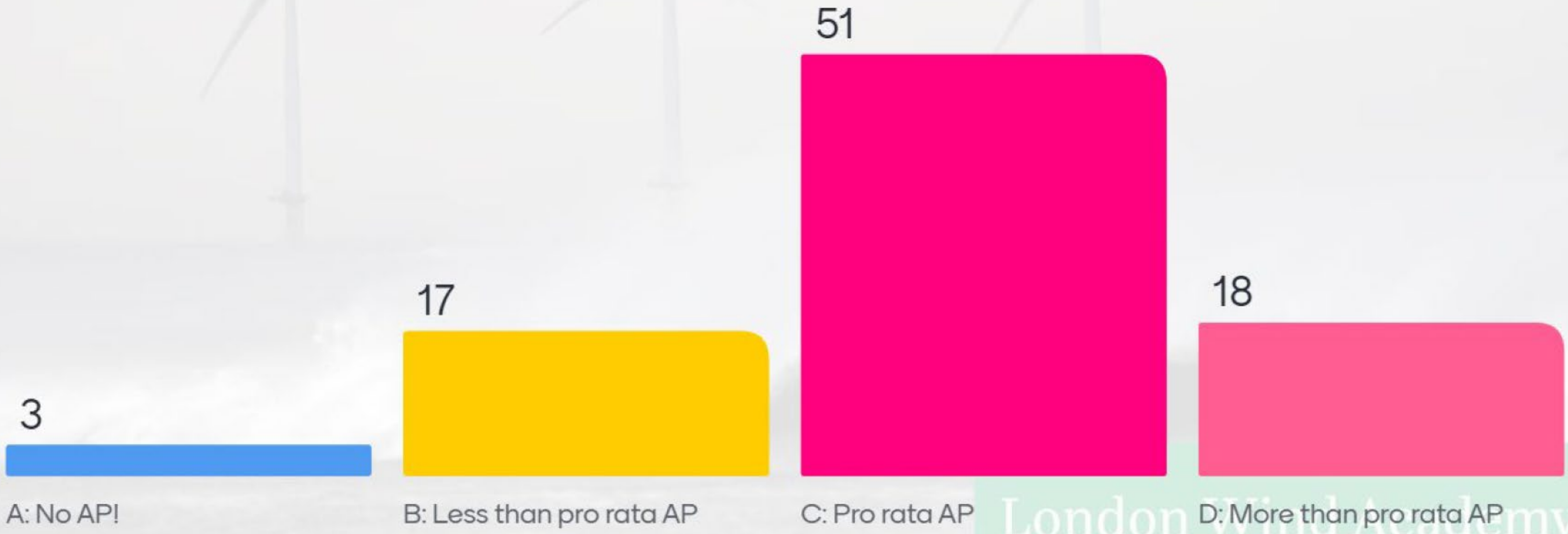
Period extension: How should such extensions be priced in terms of Additional Premium (AP)



Moderator’s Commentary

- There are good arguments for charging different amounts of AP.
- Level of AP may depend on various factors, including why extension is requested, whether an increased quanta/complexity of works are added/modified, whether additional periods of NATCAT season(s) is/are contemplated, when and to what extent the extension is discussed with and requested of insurers, etc.
- THEME: A close and timely dialogue with insurers is the best way to obtain a satisfactory/fair result.

Phased handover

How does phased handover work? If a working WTG takes severe damage just as other WTGs are completing construction, such that the completion of repairs on the damaged WTG becomes the last item preventing overall farm completion, is it a Delay In Start-Up (DSU) or a Business Interruption (BI) claim?

Phased handover

A. DSU claim. Assess date of farm completion but for the damage (a) and compare eventual actual date of farm completion (b) . Count off deductible days from (a) and assess the claim.

B. BI claim. Count off deductible days from date of incident and assess the claim.

C. Both. Pay both claims as both the WTG's production is interrupted, and the farm's overall completion date is delayed by this single event.

D. Both. However, arrangements must be made to prevent double indemnity.

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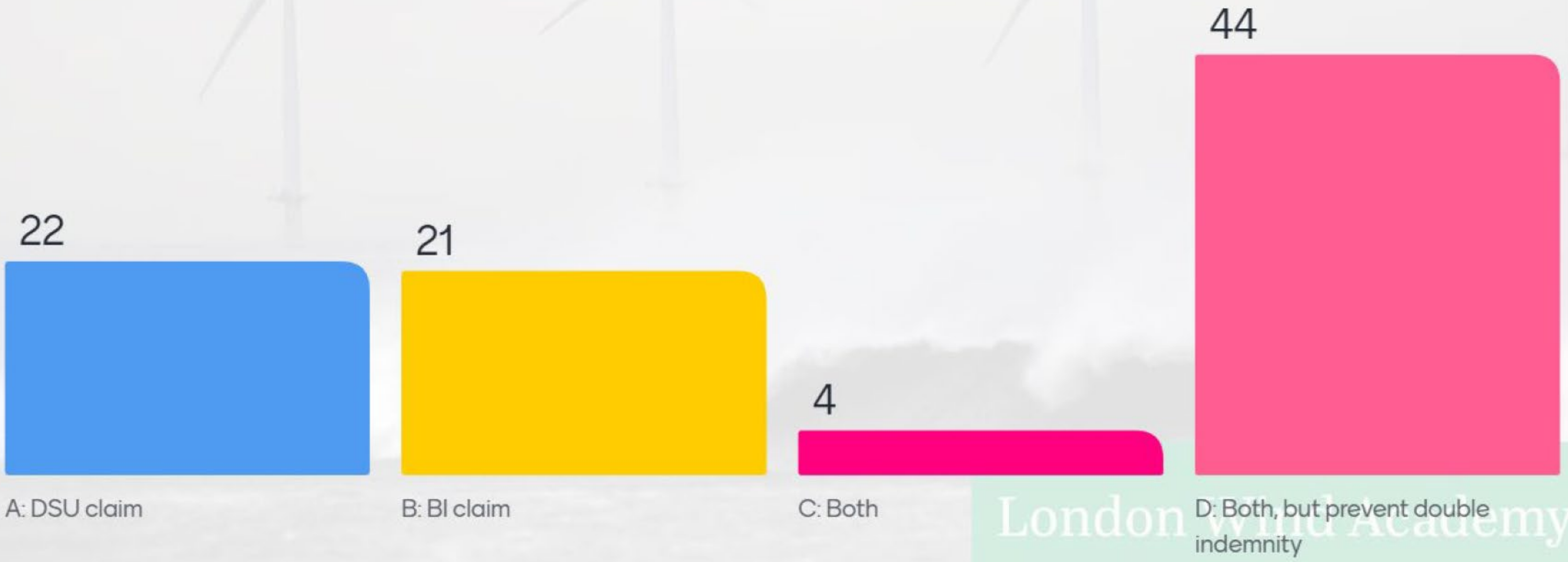
Phased handover: Is it a Delay in Start-up (DSU) or a Business Interruption (BI) claim?



Moderator’s Commentary

- Phased handover can create complex, overlapping coverage oddities which should be carefully considered.
- How phased handover is handled in insurances should match the contract handover arrangements.
- THEME: DSU works at the aggregated and farm level. BI works at the “per occurrence” unit level. How they interact during phased handover should be carefully considered.
- BONUS: Additionally complex should a serial loss scenario be involved, potentially triggering simultaneous consideration of a Serial Loss Clause (SLC).

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Serial issues

What are my obligations to investigate a loss as to whether it could be a potential serial issue? How does the time and expense it takes to make such investigations interact with a Serial Loss Clause (SLC) across several renewing policies?

Serial issues

	Panel of first loss covers all losses of the same root cause, whenever eventually discovered, subject to SLC protections	Subsequent discovered serial losses of the same root cause shall fall on the corresponding subsequent insurance panels, subject to the protections of a reset SLC
Obligations attach from the first loss	A	B
Obligations attach from the second loss or later	C	D

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Serial issues: What are my obligations to investigate a loss as to whether it could be a potential serial issue?

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Moderator’s Commentary

- Did underwriters really contemplate annual reset of SLCs?
- No real good answers. Long tails on Operational All Risk (OAR) policies are likewise impracticable. However, if annual reset is in play, will underwriters simply incorporate exclusions the moment something serial is suspected?
- Should we move to a losses-discovered regime instead of a damages-occurring regime?
- Unclear when a “prudent uninsured” should begin to have a reasonable suspicion of a serial issue so as to undertake investigative measures.
- THEME: Real life serial issues move at a slower tempo than theoretical, instantaneous applications of insurance coverages. The practical issues presented by this tempo difference should be carefully considered.

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Post-claim repairs

Today's insurances seem to draw a line between "minor" and "non-minor" (major?) works. Works which (1) are pursuant to a new contract, and/or (2) are in excess of a certain value threshold, and/or (3) require the hiring of a vessel are typically subject to separate negotiations. What happens if I have a major claim which requires "non-minor" repair works?

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Post-claim repairs

A. This must be separately negotiated. It is the substantiality of the works in question which controls, not whether they need to be carried out due to a covered incident. Operational All Risk (OAR) underwriters do not intend to insure substantial Construction All Risk (CAR) exposures as a matter of course.

B. This should not have to be separately negotiated. Coverage and repair of damages relating to covered events is why insurance exists. The OAR panel at the time of the occurrence should also be required to insure the subsequent repairs, however extensive.

C. Currently A, but B has validity. No AP should be charged.

D. Currently A, but B has validity. Coverage terms and conditions should be pre-agreed by the OAR panel.

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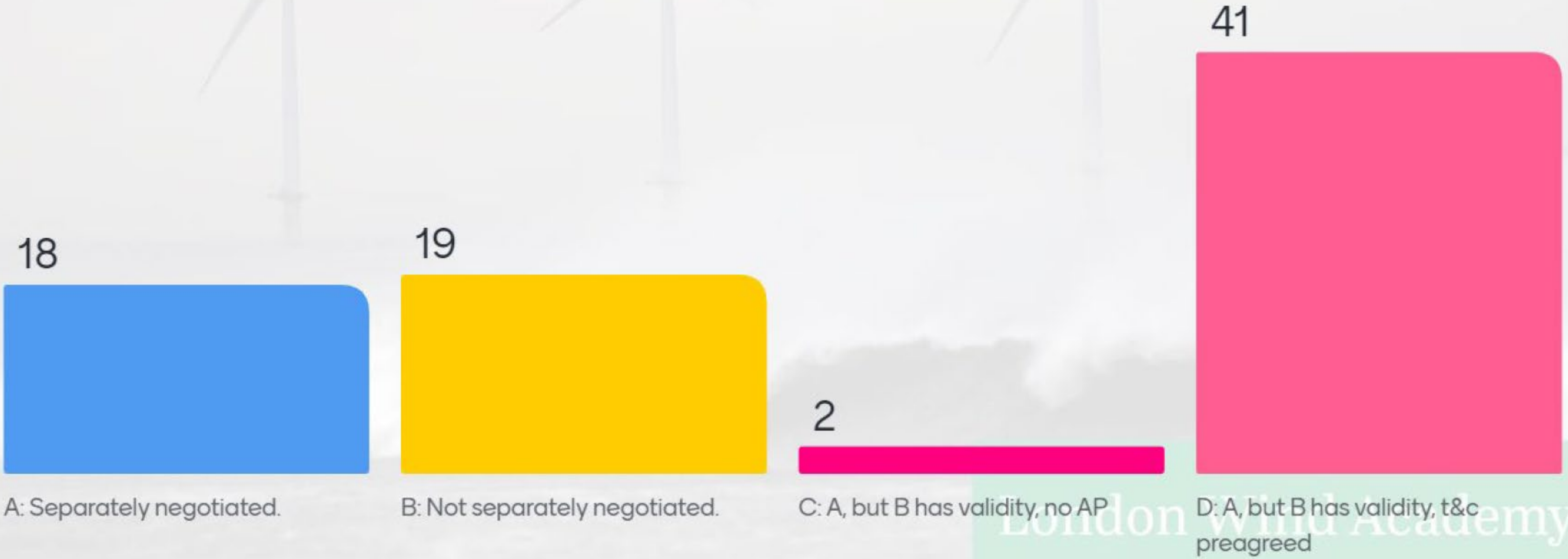
Post-claim repairs: What happens if I have a major claim which requires "non-minor" repair works?



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Moderator’s Commentary

- Minor Works Clauses focus on the extent/quanta/technical risk of construction works to which OAR underwriters are deemed to have reasonably agreed.
- Does this leave some risk of a coverage gap when an insured simply needs to repair covered damages? From an insured’s perspective, this also seems unreasonable.
- Premiums charged may be claimable, which may create a debate across different insurance panels.
- THEME: For floating offshore wind in particular, OAR underwriters must be prepared to insure material offshore works and marine operations, which is likely to form a more significant part of a floating offshore windfarm’s OAR lifecycle.

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Thank you