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EEXI and CII regulations

Webinar for Members – February 2023

TOPICS TO BE COVERED

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1. What are the EEXI and CII regulations?
2. Operational, commercial and legal considerations.
3. Conclusions and what to watch out for.



GLOBAL REGULATIONS - MARPOL

REGULATING CARBON INTENSITY



- GLOBAL REGULATIONS: MARPOL ANNEX VI
- Nov 2020: Draft amendments to MARPOL approved at MEPC 75
- Draft amendments seek to achieve (compared with 2008 levels):
 - **a 40% reduction in carbon intensity** of international shipping by 2030
 - IMO short term strategy
- June 2021: Draft amendments adopted at MEPC 76 in the form of MEPC 328(76) and these regulations came into force in **January 2023**.

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EEXI & CII

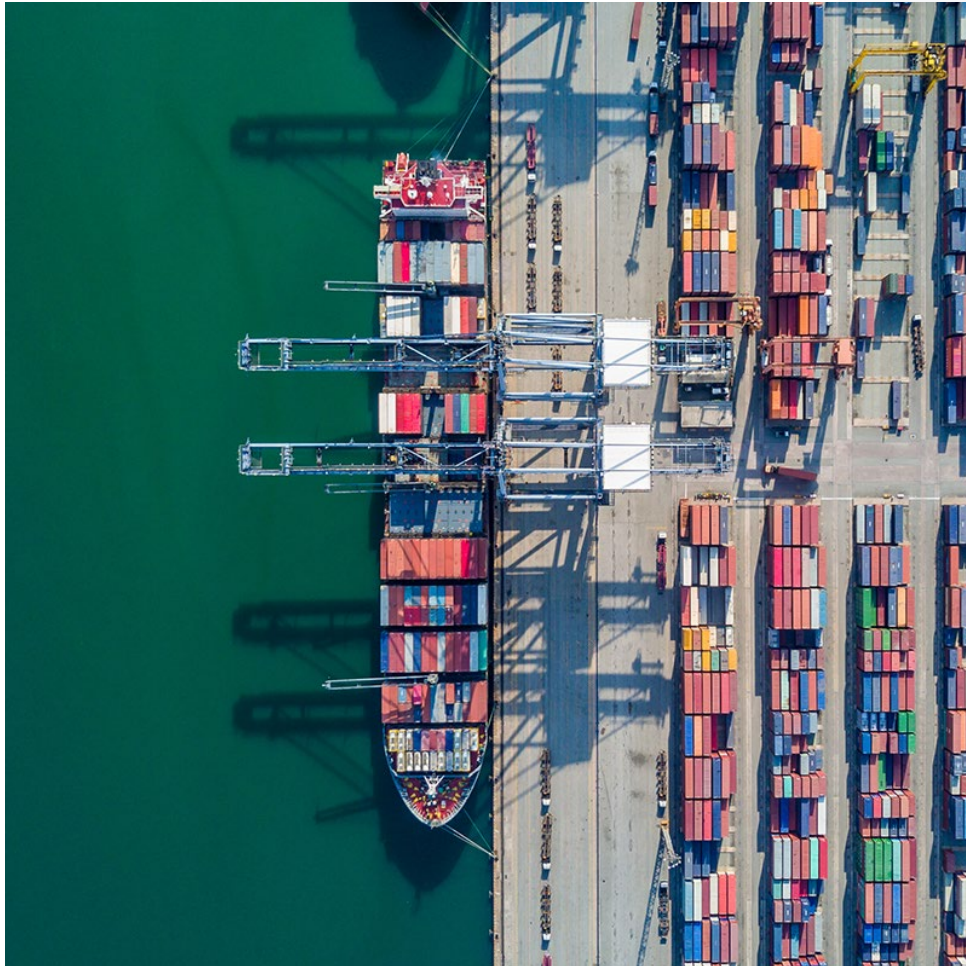
- Energy Efficiency Existing Ship Index (EEXI) is a **technical requirement**
- Carbon Intensity Indicator (CII) is an ongoing operational requirement measuring carbon dioxide (CO₂) **emissions per unit of 'transport work'**
- Compliance with the EEXI and CII are **interconnected**
- However, they are **separate requirements**.



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**Energy Efficiency Existing
Ship Index (EEXI)**

Energy efficiency existing ship index (“EEXI”)



- Entered into force in January 2023
- An Extension of the Energy Efficiency Design Index (“EEDI”) which applies to new buildings post 2013
- One off “pass or fail” paper test
- Completed at first annual survey or special survey (after 01 Jan 2023)
- Will apply to all existing vessels over 400GT
- A technical measure aimed at improving the energy efficiency of the existing design of vessels

EEXI COMPLIANCE: ATTAINED (ACTUAL) EEXI Vs REQUIRED EEXI

- 1. Attained EEXI** – the current actual estimated energy efficiency
 - Calculated by reference to technical guidelines
- 2. Required EEXI** – the maximum permitted value of a vessel's Attained EEXI
 - Calculated according to a formula based on a vessel's type and size
 - If Attained EEXI is greater than Required EEXI, then technical modifications are required

EEXI COMPLIANCE: EEXI modifications

- Suggestions for technical modifications

Examples:

- i. Engine/Shaft Power Limitation (“EPL” / “ShaPoLi”)
 - ii. Bow / propeller improvements
 - iii. Energy saving devices (“ESD”s)
 - iv. Alternative fuels
 - v. Installation of more invasive energy efficiency technology
- A vessel’s EEXI technical file to be **approved by its Flag State or Class** at the first IAPP survey taking place after 1 January 2023 and IEEC certificate updated.



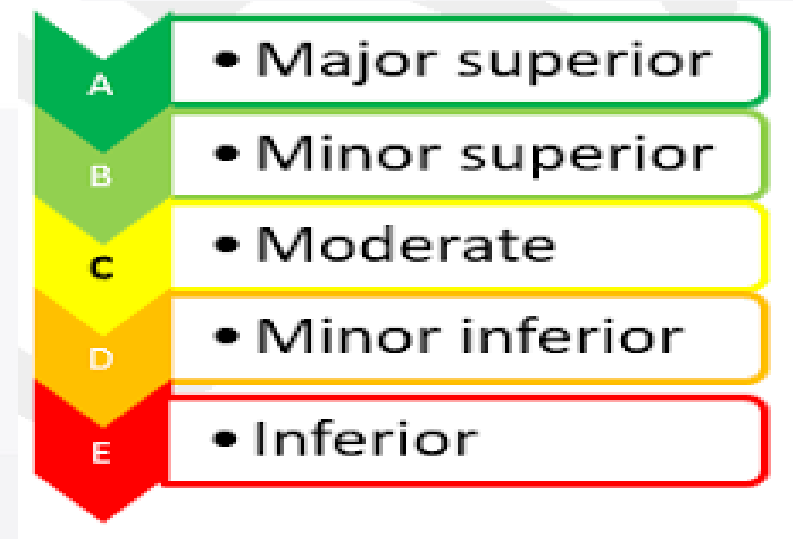


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Carbon Intensity Indicator (CII)

Carbon intensity indicator (“CII”)

- An operational tool to **measure the carbon intensity generated** by the operational performance of the commercial activities of each vessel
- Will apply to all vessels **over 5,000GT**
- Each vessel will be given an **annual carbon intensity rating** (“CII Rating”) of A to E
- Specific to **individual vessel** – not to fleets



“ATTAINED” (ACTUAL) CII & “REQUIRED” CII

1. Required CII

- The ship’s **required annual** operational energy efficiency
- Pre-determined **CII reduction factor**
- **reduced annually** and increasingly stringent towards 2030
- Ship must calculate the required CII as the **target value** of “attained CII” for the ship

2. Attained CII

- The vessel’s **actual annual operational energy efficiency** highly **dependent on how it is operated** (port stays, lay-up etc...)
- Data **collected through IMO DOC System** for fuel oil consumption for ships
- Documented and **verified against the Required CII**

Calculating Attained (ACTUAL) Operational CII

- Annual Efficiency Rating (AER) formula / equations:

$$AER = \frac{CO_2 \text{ Emission}}{DWT \times \text{Distance Sailed}}$$

$$AER = \frac{CO_2 \text{ Emission}}{GT \times \text{Distance Sailed}}$$

Cruise Ships
Ro-ro Cargo
Ro-ro Passenger



Operational considerations



- The attained annual operational CII is **calculated using emissions from fuel consumed**.
- Emissions will vary **depending on a ship's trade** (distance travelled, length of port stays, the speed and performance, weather, etc).
- Recent study two sister ships (one employed long charter, one spot market):
 - Ship on long term Charter:
 - Attained CII "B"
 - Ship on spot market:
 - Good performer when moving cargo
 - Spent time at anchor/port consuming fuel waiting for business
 - Time idle made the attended CII suffer
 - No accumulation of miles travelled -this has a significant negative impact on the CII
 - Result: Poor CII

- An **implementation plan** must be developed as part of the approved Ship Energy Efficiency Management Plan (SEEMP)
- SEEMP to document for each ship **how the required annual operational CII will be achieved** over the next three years and must also set out:
 - i. Methodology used to monitor / calculate Attained Operational CII
 - ii. Annual Required Operational CII target for 3 years
 - iii. Implementation plan to achieve this target
 - iv. Procedure for self evaluation and improvement

CII Rating & Ship Energy Efficiency Management Plan (SEEMP)

- Within three months of the end of a calendar year, a ship shall report its attained operational CII to the Flag State administration.
- This will determine a ship's CII rating, from A-E, for the following year.
- **Minimum compliant rating is "C"**
- "D" for 3 consecutive years, or "E" rating once - plan of corrective actions in SEEMP

Ways to improve AER?

- Important to monitor actual CII in real time
- Ways to improve AER *could* include:
 1. Operational adjustments
 - reducing speed / slow steaming
 - reducing cargo volume intake
 - increasing distance sailed /deviating unfavourable weather (inc. ballast voyages)
 2. Installation of energy saving equipment and improvements to hydrodynamics
 3. Viability of options depend on design, type and trade of vessel, including terms of the charterparty

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EEXI: contractual implications

EEXI: BAREBOAT CHARTERS



- Most BBC risk/responsibility for complying with EEXI regs is likely rest with charterers:
 - (i) charterers' **obligation to keep Class** up to date and all necessary **certificates in force**; and/or
 - (ii) **maintenance** obligations.
- **Shipowners' prior approval** often required before charterers can make structural/"substantial" changes to the ship
 - This may lead to disagreements

EEFI: TIME CHARTER ISSUES

- Framework of a Time charter:
 - Charterers **direct the use and employment** of the ship
 - Master is obliged to **follow charterer's legitimate/lawful order**
 - Charterer's orders must be **executed promptly**
 - Owners warrant that the ship is **seaworthy** and exercises due diligence to maintain the ship seaworthy **throughout the charterparty**



EEXI: TIME CHARTER ISSUES: Areas of dispute / practical considerations

- **Most impact: time charterparties**
- Risk and responsibility for **compliance rests with Owners**, including technical modifications
- Does the ship have a liberty to dry-dock and/or deviate to carry out modifications?
- Nature of technical modification – **time, cost and responsibility**
- **Impact on commercial operation** – for the ongoing duration of the charter. Amendments to charter terms required? (ship required to proceed at slower speed – **possible breach of clause describing the ship**)

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**EEXI TRANSITION CLAUSE FOR TIME
CHARTER PARTIES 2021**

HOW DO THE BIMCO EEXI TRANSITION AND CII OPERATIONS CLAUSES FOR TIME CHARTERS TACKLE THE REGULATIONS?



1) EEXI TRANSITION CLAUSE FOR TIME CHARTER PARTIES 2021:

➤ Context of the clause:

- *“(a) The Parties acknowledge and accept that the Vessel is required to comply with [the Regulations] from the Effective Date ...and that this and that this may require EEXI Modifications”*
- *“(b) In the event that EEXI Modifications are required, these shall be completed by the Owners prior to the Effective Date.”*

➤ Limited scope of the clause:

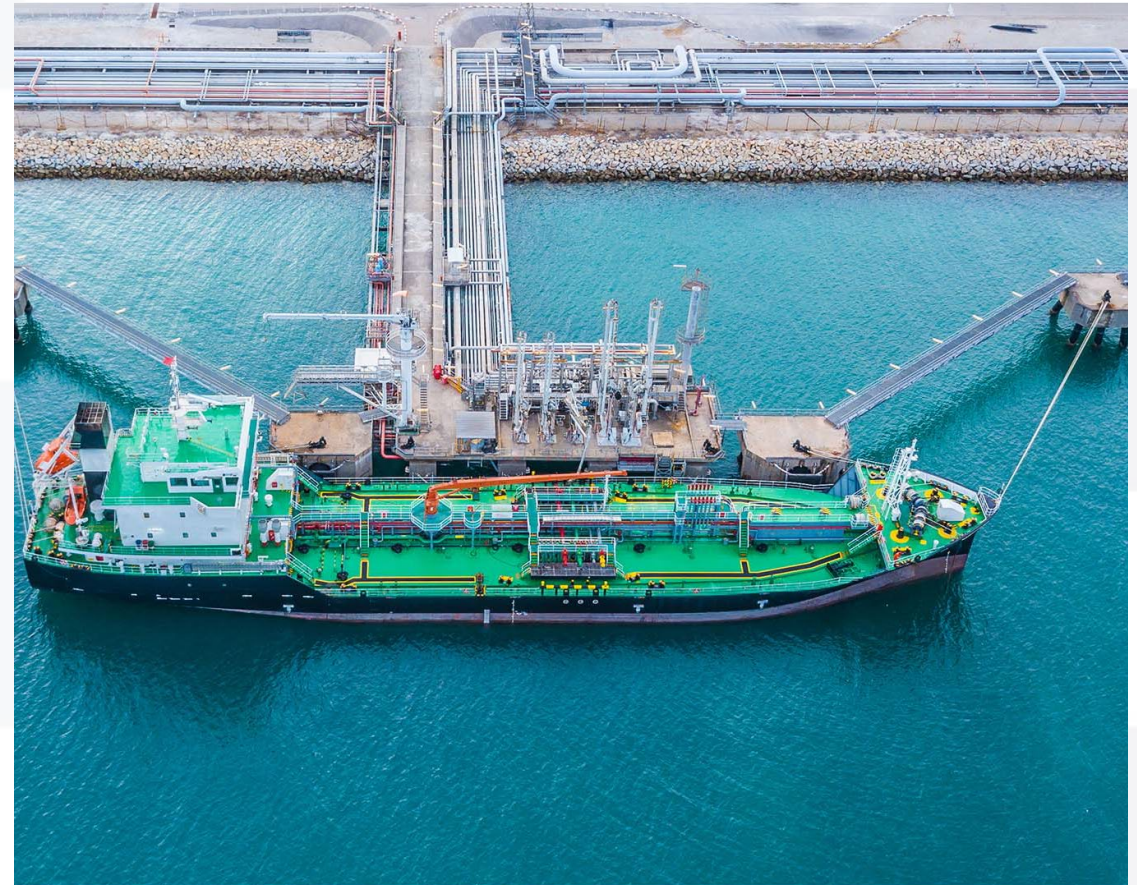
- *“EEXI Modifications” in the clause are limited to an Engine Power Limitation (EPL) or Shaft Power Limitation (SHAPOLI) – in other cases, EEXI Modifications “shall be subject to the Charterers' prior agreement and approval, which shall not be unreasonably withheld or delayed by the Charterers”*

1) EEXI TRANSITION CLAUSE FOR TIME CHARTER PARTIES 2021:

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- Division of responsibilities:
 - Specification of EEXI modifications: *“The specification of such modifications and the estimated new maximum speed and corresponding consumption figures of the Vessel shall be determined by the Owners”*

- Planning for the EEXI modifications:
 - Owners have an obligation to inform Charterers in writing about the planned EEXI modifications *“without undue delay”* and
 - *“The Owners shall use their reasonable endeavours to plan and effect such modifications during the Vessel’s service without any loss of time to the Charterers”*
 - But also, *“the Owners shall have the right to take the Vessel out of service to effect such modifications”* ie owners’ right trumps/overrides charterers’ wishes



1) EEXI TRANSITION CLAUSE FOR TIME CHARTER PARTIES 2021:



➤ Planning for the EEXI modifications (continued):

- *“The Owners shall give the Charterers not less than three (3) weeks’ written notice of the anticipated timeframe and location of such modification works.*
- *“Upon request and without undue delay the Charterers shall provide an itinerary for the Vessel and shall update the Owners in case of any changes”.*

➤ Responsibility, cost and time for the EEXI modifications:

- Unsurprisingly, EEXI modification works are owners’ responsibility, on their time and cost: *“The Owners shall be responsible for and bear the cost of such modifications including procurement, purchase, payment, installation and any trials associated therewith. Any actual loss of time to the Vessel (including bunkers consumed during such time) due to the installation and trials of such modifications (including deviation, if any) shall be for the Owners’ account.”*

1) EEXI TRANSITION CLAUSE FOR TIME CHARTER PARTIES 2021:



- After modifications have been made to the vessel:
 - *“As soon as reasonably possible following the implementation of such modifications, the Owners shall notify the Charterers in writing of the new maximum speed and corresponding consumption figures of the Vessel and other consequential changes to the Vessel’s description. ... the new maximum speed and corresponding consumption figures shall, if lower than the existing warranted maximum figures, replace those existing warranted maximum figures”.*
 - *“Other consequential changes to the Vessel description shall be logically amended as from the same date”.*
 - *“Any reduction in the Vessel’s maximum speed and corresponding consumption shall be within the Vessel’s performance curve derived from the Charter Party’s existing warranted figures. All other warranted speed and consumption figures shall remain unchanged”.*
 - *“The Charterers shall not order the Vessel to prosecute voyages at a speed which would exceed the new maximum speed...”*

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CII: Commercial & Legal Implications

SANCTIONS and ENFORCEMENT

- **No clear sanctions regime YET** for D and E CII rated vessels, except corrective plan in SEEMP
- Regulatory / commercial landscape **likely to evolve**
- Potential for IMO guidelines on sanctions (TBC)
- Incentives to vessels with CII Ratings of A-B
- Withdrawal of technical documents by Flag / Class, **but unclear**



Commercial

- Commercial/contractual requirement to have a minimum CII Rating?
- Requirement for ports of call, trade and industry bodies?
- Commercial reputation - customer demand
- charter rates corresponding to CII Rating
- Re-finance / finance criteria – ESG?

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CII: contractual implications

CII: TIME CHARTER

- Compliance with CII obligations likely to be very challenging
- EEXI compliance **IS DIFFERENT** to CII compliance
- CII Rating: only as good as your last year's performance
- Difficult to accurately *predict* the “operational” CII for a **3 year period in advance** in accordance with a reduction factor
- **“Attained”** operational CII:
 - likely to be **outside of Owners' immediate control**
 - subject to **external factors** (e.g. bad weather, extended port stays, routes, charterer's orders)
- Real *time* monitoring and assessment of/steps taken to try to comply
- Calculating Carbon emissions for the **period of the charter will be important for redelivering/follow on charterers**

Preventative steps and Owners' obligations

- Reducing speed
 - Deviating from quickest route
 - Reducing cargo intake
- Time charter rights/obligations:
 - utmost / due despatch obligations
 - follow employment orders and instructions
 - speed and consumption warranties
 - No deviation
 - cargo capacity warranties may be impacted?
 - Damages, termination and/or off-hire?
 - Potential third party cargo claims (e.g. delays to cargo – soyabeans deteriorate after 30 days at sea!)

CII: TIME CHARTER

Owners taking preventative actions: Defences?

- Establishing **causal link** between Charterers' order(s) + Regulations breach + losses?
- **Long term charter versus short term** charter/trip charter
- Implied terms that charterers cannot give orders that impact "attained" CII? (difficult)

Charterers' liability: Non-compliance with Required CII/CII Rating downgrading to "D" or "E":

- Where Owners unable to take corrective action due to charterer's orders - **Implied Indemnity in Owners' favour?**

Impact not limited to Owners:

- CII rating: impact on commercial reputation and trading - **minimum CII rating in CP?**

Voyage charters

- Owners better placed to provide for/negotiate CII compliant operational limits in spot voyage charters
- But issues could still arise where tailored clauses are not negotiated:
 - utmost/**due dispatch** obligations and speed / **consumption warranties** (where given)
 - express **cargo capacity warranties** where cargo intake is reduced
 - steps taken to conserve energy, limit power or reduce speed could **lead to laytime / demurrage issues**
 - BIMCO Slow Steaming Clause 2012?

COAs

- Slow steaming / extending voyage length could **reduce total annual voyages** / reduce earnings resulting in breach
- **Reducing cargo intake unlikely to be an option**
- Limited arguments to justify taking preventative action?

CII Drafting considerations

- Obligation of the parties to **cooperate**
- Charterers are to **employ** the Vessel so as to enable **compliance with CII regs**
- Attained CII **not to exceed** the Agreed CII
- Owners to maintain the vessel, passage plan, adjust trim, **use additional aids provided by charterers**
- Owners to monitor and calculate the actual consumption, **provide the Charterers any relevant data** the Charterers require

CII Drafting considerations

- Right to **claim damages** if Owners suffer a loss, for example due to redelivery of their ship with a lower CII rating than the agreed?
- Obligation on the charterer to deliver **bunkers with a certain calorific content?**
- Agree a **method** of calculating CII
- **Variable hire** depending on CII rating
- **Right to reject** a ship if CII not up to minimum (similar to certain right-ship clauses)

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**BIMCO CII Operations Clause for Time
Charter Parties 2022**

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



➤ Overall scheme:

Both parties are to:

- *“acknowledge and accept”* that the vessel is required to comply with the Regs
- *“co-operate and work together in good faith”* to share findings and best practices as regards *“potential improvements to the Vessel’s energy efficiency”* and *“collect and share data on a daily basis any relevant data that may assist the monitoring and assessment of the Vessel's compliance”*
- The Regulations require vessels to continue to improve their energy efficiency.

➤ Preparation for the charterparty commencement:

- Before delivery: the parties are to agree and specify the “Agreed CII values” (for longer charterparties, by calendar year). If not agreed, the Agreed CII will be the Required CII for the calendar year.

➤ On delivery:

- Owners give the “Delivery Attained CII” and details of bunkers consumed and distance travelled for current calendar year.
- This information needs *“to the best of the Owners' knowledge, be accurate and complete”*

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



➤ During the charter party:

a) Charterers' obligations:

- To operate and employ the vessel (including voyage planning and supply and selection of bunker fuel) in a manner which is consistent with the MARPOL Carbon Intensity Regulations.
- Not to permit the vessel's charterparty Attained CII to exceed the Agreed CII by the end of each relevant calendar year (or, if the charter period or period remaining under the Charter Party is less than a full calendar year, by the time of redelivery).

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022

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➤ During the charter party (continued):

b) Owners' obligations:

- SEEMP:

Comply with the SEEMP *“provided always that the Charterers adhere to their obligations under this Clause”*

- Bunkers:

“Exercise due diligence to ensure that” the vessel minimises fuel consumption

- Vessel's maintenance:

“Maintain the vessel and her equipment relevant to the Vessel's energy efficiency, in accordance with the Charter Party and the MARPOL Carbon Intensity Regulations/SEEMP” – this is *“subject to any express provisions elsewhere in the Charter Party that place maintenance obligations on the Charterers”*

“Report any associated deficiencies to Charterers”

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



➤ During the charter party (continued)

b) Owners' obligations:

- Navigation/routeing:

Proceed by the most fuel-efficient route - *“when passage planning, adjust the Vessel’s trim and operating the Vessel’s main engine(s) and auxiliary engine(s)” and “make optimal use of vessel’s navigation equipment and any additional aids provided by the Charterers, such as weather routing, voyage optimisation and performance monitoring systems”*

“Charterers may at their discretion provide, in writing to the Master, orders or instructions to adjust the Vessel’s speed or RPM to meet a specified time of arrival ... or to proceed at a specified main engine fuel consumption, which shall constitute the Charterers’ orders with which the Master shall comply but subject always to the safety of the vessel, crew and cargo and protection of marine environment & the vessel’s engines and/or equipment”.

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022

➤ During the charter party (continued)

- Reporting to charterers:

“Monitor and calculate vessel’s actual performance on a daily basis and provide the Charterers with details of the types and quantities of fuels consumed and distance travelled as required by the Charterers and any other relevant data the Charterers may reasonably request for the purpose of this Clause”.

“The Owners undertake that the data provided to the Charterers pursuant to this subclause shall, to the best of their knowledge, be accurate and complete”



2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



➤ During the charter party (continued)

Both parties:

- Where “*the trajectory of the C/P Attained CII*” deviates from the Agreed CII ...” - subclause (g) lays down a detailed package of who is to do what.

To note:

- Only 2 working days for each step!
- Owners have to prove that they “*can reasonably show that following this written plan will result in the Charterers failing to meet their obligations*” and that “*on the basis of the Projected Attained CII, the Agreed CII for the relevant calendar year (or for the charter period should redelivery be sooner than the end of the calendar year) would be exceeded*”
- The Parties shall cooperate and work together in good faith to agree an adjusted written plan for the next voyage or voyages. Any such adjusted written plan shall be deemed to constitute the Charterers' orders as if they had been given by the Charterers at the outset.

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



During the charter party (continued)

d) Charterparty warranties:

Performance warranties (speed and bunker consumption) remain in place: therefore charterers can pursue a claim for a vessel's underperformance, but charterers still have to comply with their obligations under the BIMCO CII clause

e) Bills of lading:

"The Charterers shall ensure that the terms of the bills of lading... provide that compliance by the Owners with this Clause does not constitute a breach of the contract of carriage. The Charterers shall indemnify the Owners against all consequences and liabilities that may arise from bills of lading ...impose or result in breach of the Owners' obligation to proceed with due despatch or are to be held to be a deviation or the imposition of more onerous liabilities upon the Owners than those assumed by the Owners pursuant to this Clause."

f) Indemnity:

"The Owners shall be entitled to claim from the Charterers any losses, damages ...suffered by the Vessel and/or the Owners which have been caused by any breach by the Charterers of their obligations under this Clause."

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022

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- BIMCO:

The clause is intended to be a “stand-alone” clause that can be incorporated into existing or new time charter parties. While the clause provides a reasonable and pragmatic blueprint of how to deal with the new CII regime in practice, parties are encouraged to consider how it fits in with their respective industry segment, the particular trade, the duration of the time charter party arrangement and the commercial relationship between the parties.



2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022



What difficulties may CP parties experience?

Owners and charterers:

- The documents that owners need to provide
- *“Shall co-operate and work together in good faith”*
- If there is an actionable breach of the charterparty, how do owners prove what loss has been suffered ?
- *“Share any findings and best practices that they may identify on potential improvements to the Vessel’s energy efficiency”* – does this place an unwritten or implied obligation on owners and charterers to keep researching ways to improve the vessel’s energy efficiency? If so, to what extent - *how “best” is best?*

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022

What disputes may arise?

- (g) *“If ... the trajectory of the C/P Attained CII is deviating from the Agreed CII”* ie the vessel’s CII performance starts to suffer during C/P
 - By how much?
 - What evidence will owners need in order to trigger this clause?
 - What if charterers think this is due to deficiency of the vessel, not their orders?
 - The nuclear option: *repudiatory breach?*

- *“CP Attained CII”* excludes fuel consumed and distance travelled during offhire periods *“in excess of [.....]”* – *it’s now even more important to identify if the vessel was on hire or off hire!*

- Proving (or disproving) the amount of loss for any breach of the CII Regs and/or the C/P:
 - Loss of the vessel’s earning capacity
 - Loss of the vessel’s capital value
 - What experts to assess existence and amount of loss?

2) BIMCO CII OPERATIONS CLAUSE FOR TIME CHARTER PARTIES 2022

Some thoughts:

➤ **Contractually:**

- *Everyone is on a learning curve!* BIMCO has stated that it will undertake a clause review “once there is a clear understanding of how the MARPOL Carbon Intensity Regulations are working in practice”
- Fundamentally, CII Regs are an obligation on owners which “interfere” with both the operational and commercial use of the vessel
- What amendments are parties making to the BIMCO clauses ? What if no express clause is incorporated into the charterparty to address the Regulations??
- Arbitrations/litigation - *what expertise is there in the market?*

➤ **Commercially:**

- IMO: “Administrations, port authorities and other stakeholders as appropriate, are encouraged to provide incentives to ships rated as A or B” – *will this lead to a hierarchy of commercial value of ships?*

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Other considerations

OTHER INITIATIVES



How can parties align environmental benefits with commercial benefits?

➤ **What does “good” look like?**

- Confusion about what “good” looks like
- Regulatory environment increasing complex and not necessarily assisting actual efficiency
- Currently difficult to be able to assess the return in US\$ terms to spur added investment and real vessel efficiency and emission reduction.

➤ **Baltic Exchange initiative** - voyage benchmarking (based on both the EEOI and AER/CII) for all the major dry bulk and tanker trades so as to understand better the operating efficiencies across the major shipping routes and ship sizes - <https://www.balticexchange.com/>

➤ **Blue Visby Consortium** – solving the “sail fast, then wait” problem so as to deliver significant reduction in emissions - <https://bluevisby.com/>

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Questions?