

Wednesday 19 October 2022

P9_TA(2022)0367

Sustainable maritime fuels (FuelEU Maritime Initiative) *I**

Amendments adopted by the European Parliament on 19 October 2022 on the proposal for a regulation of the European Parliament and of the Council on the use of renewable and low-carbon fuels in maritime transport and amending Directive 2009/16/EC (COM(2021)0562 — C9-0333/2021 — 2021/0210(COD))⁽¹⁾

(Ordinary legislative procedure: first reading)

(2023/C 149/13)

Amendment 1**Proposal for a regulation****Recital 1***Text proposed by the Commission*

- (1) Maritime transport accounts for around 75 % of EU external trade and 31 % of EU internal trade in terms of volume. **At the same time, ship traffic to or from ports in the European Economic Area accounts for some 11 % of all EU CO₂ emissions from transport and 3-4 % of total EU CO₂ emissions.** 400 million passengers embark or disembark annually in ports of Member States, including around 14 million on cruise ships. Maritime transport is therefore an essential component of Europe's transport system and plays a critical role for the European economy. The maritime transport market is subject to strong competition between economic actors in the Union and beyond for which a level playing field is indispensable. The stability and prosperity of the maritime transport market and its economic actors rely on a clear and harmonised policy framework where maritime transport operators, ports and other actors in the sector can operate on the basis of equal opportunities. Where market distortions occur, they risk putting ship operators or ports at a disadvantage compared to competitors within the maritime transport sector or in other transport sectors. In turn, this can result in a loss of competitiveness of the maritime transport industry, and a loss of connectivity for citizens and businesses

Amendment

- (1) Maritime transport accounts for around 75 % of EU external trade and 31 % of EU internal trade in terms of volume. 400 million passengers embark or disembark annually in ports of Member States, including around 14 million on cruise ships. Maritime transport is therefore an essential component of Europe's transport system and plays a critical role for the European economy. The maritime transport market is subject to strong competition between economic actors in the Union and beyond for which a **global** level playing field is indispensable. The stability and prosperity of the maritime transport market and its economic actors rely on a clear and harmonised policy framework where maritime transport operators, ports and other actors in the sector can operate on the basis of equal opportunities. Where market distortions occur, they risk putting ship operators or ports at a disadvantage compared to competitors within the maritime transport sector or in other transport sectors. In turn, this can result in a loss of competitiveness of the maritime transport industry, **fewer jobs** and a loss of connectivity for citizens and businesses.

⁽¹⁾ The matter was referred back for interinstitutional negotiations to the committee responsible, pursuant to Rule 59(4), fourth subparagraph (A9-0233/2022).

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Amendment 2
Proposal for a regulation
Recital 1 a (new)

Text proposed by the Commission

Amendment

(1a) *The maritime sector employs 2 million Europeans and contributes EUR 149 billion to the economy. For every EUR 1 million generated in the shipping industry, EUR 1,8 million are generated elsewhere in the EU economy. ^(1a)*

(^{1a}) *European Community Shipowners' Association report 'The Economic Value of the EU Shipping Industry', 2020.*

Amendment 3
Proposal for a regulation
Recital 1 b (new)

Text proposed by the Commission

Amendment

(1b) *Maritime transport is the most environmentally friendly transport mode with significantly lower greenhouse gas emissions per tonne of goods transported compared to other modes ^(1a). At the same time, ship traffic to or from ports in the European Economic Area accounts for some 11 % of all EU CO₂ emissions from transport and 3 to 4 % of total EU CO₂ emissions. CO₂ emissions from maritime transport are expected to increase, unless further action is taken. All sectors of the economy must contribute to the swift reduction of GHG emissions towards net-zero GHG emissions by 2050 at the latest as enshrined in Regulation (EU) 2021/1119. It is therefore essential for the Union to set out an ambitious pathway for the swift ecological transition of the maritime sector, which would also contribute to maintaining and further promoting its global leadership in the green technologies, services and solutions, and to further stimulating job creation in the related value chains while retaining competitiveness.*

(^{1a}) *European Environment Agency study, 2020, <https://www.eea.europa.eu/publications/rail-and-waterborne-transport>*

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Amendment 4
Proposal for a regulation
Recital 2

Text proposed by the Commission

- (2) To enhance the Union's climate commitment under the Paris Agreement and set out the steps to be taken to achieve climate neutrality by 2050, and to translate the political commitment into a legal obligation, the Commission adopted the (amended) proposal for a Regulation of the European Parliament and of the Council on establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) ⁽¹⁹⁾ as well as the Communication 'Stepping up Europe's 2030 climate ambition' ⁽²⁰⁾. This also integrates the target of reducing greenhouse gas (GHG) emissions by at least 55 % compared to 1990 levels by 2030. Accordingly, various complementary policy instruments are needed to ***motivate*** the use of sustainably produced renewable and low-carbon fuels, included in the maritime transport sector. The necessary technology development and deployment ***has to happen*** by 2030 to prepare for much more rapid change thereafter.

⁽¹⁹⁾ COM(2020)0563

⁽²⁰⁾ COM(2020)0562

Amendment

- (2) To enhance the Union's climate commitment under the Paris Agreement and set out the steps to be taken to achieve climate neutrality by 2050 ***at the latest***, and to translate the political commitment into a legal obligation, the Commission adopted the (amended) proposal for a Regulation of the European Parliament and of the Council on establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) ⁽¹⁹⁾ as well as the Communication 'Stepping up Europe's 2030 climate ambition' ⁽²⁰⁾. This also integrates the target of reducing greenhouse gas (GHG) emissions by at least 55 % compared to 1990 levels by 2030. Accordingly, various complementary policy instruments are needed to ***promote and speed up a large-scale production and*** the use of sustainably produced renewable and low-carbon fuels, included in the maritime transport sector, ***whilst respecting the principle of technological neutrality***. The necessary technology development and deployment ***should be supported as soon as possible and must be under way*** by 2030 to prepare for much more rapid change thereafter. ***It is also essential to foster innovation and to support research for emerging and future innovation such as emerging alternative fuels, eco-design, bio based materials, wind propulsion and wind-assisted propulsion.***

⁽¹⁹⁾ COM(2020)0563

⁽²⁰⁾ COM(2020)0562

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Amendment 5
Proposal for a regulation
Recital 2 a (new)

Text proposed by the Commission

Amendment

- (2a) *LNG is likely to play a transitional role in maritime transport, enabling a gradual transition towards zero-emission alternatives, especially where there is currently no economically viable zero-emission power-train technology available. The Communication on the Smart and Sustainable Mobility Strategy points to zero-emission seagoing ships becoming market ready by 2030. Fleet conversion should take place gradually due to the long lifespan of the ships. Transport fuels such as LNG need increasingly to be decarbonised by blending with liquefied biomethane (bio-LNG) or renewable and low-carbon synthetic gaseous e-fuels (e-gas) for instance.*

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Amendment 6
Proposal for a regulation
Recital 3

Text proposed by the Commission

- (3) In the context of fuel transition to renewable and low carbon fuels and substitute sources of energy, it is essential to ensure the proper functioning of and fair competition in the EU maritime transport market regarding marine fuels, which account for a substantial share of ship operators' costs. Differences in fuel requirements across Member States of the Union can significantly affect ship operators' economic performance and negatively impact competition in the market. Due to the international nature of shipping, ship operators may easily bunker in third countries and carry large amounts of fuel. This may lead to carbon leakage and detrimental effects on the competitiveness of the sector if the availability of renewable and low carbon fuels in maritime ports under the jurisdiction of a Member State is not accompanied by requirements for their use that apply to all ship operators arriving at and departing from ports under the jurisdiction of Member States. This Regulation should lay down measures to ensure that the penetration of renewable low-carbon fuels in the marine fuels market takes place under the conditions of fair competition on the EU maritime transport market.

Amendment

- (3) In the context of fuel transition to renewable and low carbon fuels and substitute sources of energy, it is essential to ensure the proper functioning of and fair competition in the EU maritime transport market regarding marine fuels, which account for a substantial share of ship operators' costs - **typically between 35 % and 53 % of shipping freight rates. Policy measures must therefore be cost-effective and aim to generate the largest possible decarbonisation at the lowest possible cost.** Differences in fuel requirements across Member States of the Union can significantly affect ship operators' economic performance and negatively impact competition in the market. Due to the international nature of shipping, ship operators may easily bunker in third countries and carry large amounts of fuel, **which could also contribute to a risk of loss of competitiveness of Union ports vis-à-vis non-Union ports.** This may lead to carbon **leakage and business** leakage and detrimental effects on the competitiveness of the sector if the availability of renewable and low carbon fuels in maritime ports under the jurisdiction of a Member State is not accompanied by requirements for their use that apply to all ship operators arriving at and departing from ports under the jurisdiction of Member States. This Regulation should lay down measures to ensure that the penetration of renewable **and** low-carbon fuels in the marine fuels market takes place under the conditions of fair competition on the EU maritime transport market, **leaving shipping operators a lower abatement cost option. The availability of such an option is essential to guarantee the competitiveness of European shipping industries and the relevance of logistic routes linking European ports with global trade.**

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Amendment 7
Proposal for a regulation
Recital 3 a (new)

Text proposed by the Commission

Amendment

- (3a) *The maritime sector is characterised by fierce international competition. Major differences in regulatory burdens across flag states have exacerbated unwanted practices such as the reflagging of vessels. The sector's intrinsic global character underlines the importance of a flag-neutral approach and of a favourable regulatory environment, which is a precondition for attracting new investment and safeguarding the competitiveness of European ports, ship owners and operators.*

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Amendment 8
Proposal for a regulation
Recital 4

Text proposed by the Commission

- (4) In order to produce an effect on all the activities of the maritime transport sector, it is appropriate that this Regulation covers a share of the voyages between a port under the jurisdiction of a Member State and port under the jurisdiction of a third country. This Regulation should thus apply to half of the energy used by a ship performing voyages arriving at a port under the jurisdiction of a Member State from a port outside the jurisdiction of a Member State, half of the of the energy used by a ship performing voyages departing from a port under the jurisdiction of a Member State and arriving at a port outside the jurisdiction of a Member State, the entirety of the energy used by a ship performing voyages arriving at a port under the jurisdiction of a Member State from a port under the jurisdiction of a Member State, and the energy used at berth in a port under the jurisdiction of a Member State. Such coverage of a share of the energy used by a ship in both incoming and outgoing voyages between the Union and third countries ensures the effectiveness of this Regulation, including by increasing the positive impact on the environment of such framework. **Simultaneously, such framework limits** the risk of evasive port calls and the risk of delocalisation of transshipment activities outside the Union. In order to ensure smooth operation of maritime traffic, a level playing field among maritime transport operators and among ports, and avoid distortions in the internal market, all journeys arriving or departing from ports under jurisdiction of Member States, as well as the stay of ships in those ports should be covered by uniform rules contained in this Regulation.

Amendment

- (4) In order to produce an effect on all the activities of the maritime transport sector, it is appropriate that this Regulation covers a share of the voyages between a port under the jurisdiction of a Member State and port under the jurisdiction of a third country. This Regulation should thus apply to half of the energy used by a ship performing voyages arriving at a port under the jurisdiction of a Member State from a port outside the jurisdiction of a Member State, half of the of the energy used by a ship performing voyages departing from a port under the jurisdiction of a Member State and arriving at a port outside the jurisdiction of a Member State, the entirety of the energy used by a ship performing voyages arriving at a port under the jurisdiction of a Member State from a port under the jurisdiction of a Member State, and the energy used at berth in a port under the jurisdiction of a Member State. Such coverage of a share of the energy used by a ship in both incoming and outgoing voyages between the Union and third countries ensures the effectiveness of this Regulation, including by increasing the positive impact on the environment of such framework. **This framework should limit** the risk of evasive port calls and the risk of delocalisation of transshipment activities outside the Union. In order to ensure smooth operation of maritime traffic, a level playing field among maritime transport operators and among ports, and avoid distortions in the internal market, all journeys arriving or departing from ports under jurisdiction of Member States, as well as the stay of ships in those ports should be covered by uniform rules contained in this Regulation. **The Commission should set up a monitoring scheme specifically to assess carbon leakage and business leakage, as well as potential evasive practices, and draft a list of potential business activities that do not fall under significant business activities performed at neighbouring EU port calls. In doing so, if significant carbon leakage and business leakage as well as evasive practices are reported, the Commission should propose measures to tackle these issues.**

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Amendment 9
Proposal for a regulation
Recital 4 a (new)

Text proposed by the Commission

Amendment

- (4a) Given that this Regulation will impose additional compliance costs on the sector, compensatory actions need to be taken in order to prevent the total level of regulatory burden from increasing. Before the application of this Regulation, the Commission should therefore present proposals offsetting the regulatory burdens introduced by this Regulation, through the amendment or repeal of provisions in other Union legislative acts that generate regulatory burdens in the maritime sector.

Amendment 10
Proposal for a regulation
Recital 4 b (new)

Text proposed by the Commission

Amendment

- (4b) In order to ensure the necessary degree of legal and investment certainty, this Regulation should be closely aligned to and consistent with Regulation XXXX-XXX (Alternative Fuels Infrastructure Regulation), the Directive 2003/87/EC (EU ETS), Directive XXXX-XXX (Renewable Energy Directive), and Directive 2003/96/EC (Energy Taxation Directive). Such alignment should result in a coherent legislative framework for the shipping sector, that contributes to significantly increasing the production of sustainable alternative fuels, ensures the deployment of the necessary infrastructure and incentivises the use of these fuels in a steadily growing share of vessels. In order to ensure overall consistency with the Union's climate, competitiveness and 'sustainable economic growth' targets the overarching, combined and cumulative climate and economic impacts of those legislative acts should be evaluated comprehensively and continuously.

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Amendment 11
Proposal for a regulation
Recital 4 c (new)

Text proposed by the Commission

Amendment

- (4c) *The obligation for ports to provide an on-shore power supply should be matched by a corresponding obligation for ships to connect to the charging infrastructure designed to deliver that power supply while at berth, in order to ensure the effectiveness of that infrastructure and avoid the risk of stranded assets. Furthermore, efforts should be made to reduce the costs associated with on-shore charging by permanently exempting electricity supplied to vessels in port from taxation through amendments to Directive XXXX-XXXX (Energy Taxation Directive).*

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Amendment 12
Proposal for a regulation
Recital 5 a (new)

Text proposed by the Commission

Amendment

- (5a) With the increased costs of shipping for the vessels which do not comply with the requirements of this Regulation, the risk of evasive behaviour and circumvention of the provisions of this Regulation, in particular on the segment of liner container trade, should be addressed. Port calls to ports in the Union's vicinity in order to limit the costs of compliance with this Regulation would not only diminish the environmental benefits expected and significantly undermine the objectives pursued by this Regulation, but could lead to additional emissions, due to the extra distance travelled to evade the application of this Regulation. It is therefore appropriate to exclude from the concept of port of call certain stops at non-Union ports. That exclusion should target ports in the Union's vicinity where the risk of evasion is the greatest. A limit of 300 nautical miles constitutes a proportionate response to that risk, balancing the additional burden and the risk of evasion. Moreover, the exclusion from the concept of port of call should only target containerships and ports the main activity of which is the transshipment of containers. For such shipments, the risk of evasion also consists in a shift of port hub to ports outside the Union aggravating the effects of the evasion. For this reason, and in the absence of an IMO mandatory scheme on the use of renewable and low carbon fuels for international voyages at the global level that has a similar level of ambition to that of the requirements set out in this Regulation, stops of containerships in a neighbouring container transshipment port should not be considered to be stops in ports of calls within the meaning of this Regulation. In order to ensure that the measure is proportional to the objectives pursued and results in equal treatment, measures in third countries that have an effect equivalent to this Regulation should be taken into account.

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Amendment 13
Proposal for a regulation
Recital 5 b (new)

Text proposed by the Commission

Amendment

- (5b) *In order to take into account the specific situation of island regions, as underlined in Article 174 of the Treaty, and the need to preserve connectivity between islands and peripheral regions with central regions of the Union, temporary exemptions should be allowed for voyages performed by passenger ships other than cruise passenger ships between a port of call under the jurisdiction of a Member State and a port of call under the jurisdiction of the same Member State located in an island with fewer than 100 000 permanent residents.*

Amendment 14
Proposal for a regulation
Recital 5 c (new)

Text proposed by the Commission

Amendment

- (5c) *Taking into account the special characteristics of the outermost regions of the Union, notably their remoteness and insularity, and the constraints to which they are subject, special consideration should be given to preserving their accessibility, and the ability to connect to them efficiently by means of maritime transport. Therefore, only half of the energy used on voyages departing from or arriving to a port of call located in an outermost region should be included in the scope of this Regulation. For the same reason, temporary exemptions should be allowed for voyages between a port of call located in an outermost region and another port of call located in an outermost region, and to the energy used during their stay within the port of calls of the corresponding outermost regions.*

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Amendment 15
Proposal for a regulation
Recital 5 d (new)

Text proposed by the Commission

Amendment

- (5d) *To ensure a level playing field for ships, including those built to operate in ice-covered waters on their way to, from or between Member State ports, specific information relating to a ship's ice class, and to its navigation through ice, should be considered when calculating GHG emission reductions on a vessel basis, as well as in the data monitored and reported on the basis of the Regulation (EU) 2015/757.*

Amendment 16
Proposal for a regulation
Recital 6

Text proposed by the Commission

Amendment

- (6) The person or organisation responsible for the compliance with this Regulation should be the shipping company, defined as the **shipowner** or any other organisation or person, such as the manager or the bareboat charterer, that has assumed the responsibility for the operation of the ship from the **shipowner** and that, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention. This definition is based on the definition of 'company' in Article 3, point (d) of Regulation (EU) 2015/757 of the European Parliament and of the Council⁽²¹⁾, and in line with the global data collection system established in 2016 by the International Maritime Organization (IMO). In line with the polluter pays principle, the shipping company could, by means of a contractual arrangement, hold the entity that is directly responsible for the decisions affecting the greenhouse gas intensity of the energy used by the ship accountable for the compliance costs under this Regulation. This entity would normally be the entity that is responsible for the choice of fuel, route and speed of the ship.

- (6) The person or organisation responsible for the compliance with this Regulation should be the shipping company, defined as the **ship-owner** or any other organisation or person, such as the manager or the bareboat charterer, that has assumed the responsibility for the operation of the ship from the **ship-owner** and that, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention. This definition is based on the definition of 'company' in Article 3, point (d) of Regulation (EU) 2015/757 of the European Parliament and of the Council⁽²¹⁾, and in line with the global data collection system established in 2016 by the International Maritime Organization (IMO). In line with the polluter pays principle, the shipping company could, by means of a contractual arrangement, hold the entity that is directly responsible for the decisions affecting the greenhouse gas intensity of the energy used by the ship accountable for the compliance costs under this Regulation. This entity would normally be the entity that is responsible for the choice of fuel, route and speed of the ship.

⁽²¹⁾ Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC (OJ L 123, 19.5.2015, p. 55).

⁽²¹⁾ Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC (OJ L 123, 19.5.2015, p. 55).

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Amendment 17
Proposal for a regulation
Recital 7

Text proposed by the Commission

- (7) In order to limit the administrative burden, in particular that of smaller operators, this Regulation should not apply to wooden ships of a primitive build **and ships not propelled by mechanical means** and focus on ships with a gross tonnage above 5 000. Even though these latter ships represent only approximately 55 % of all ships calling at ports under the Regulation (EU) 2015/757 of the European Parliament and of the Council, they are responsible for 90 % of the carbon dioxide (CO₂) emissions from the maritime sector.

Amendment

- (7) In order to limit the administrative burden, in particular that of smaller operators, this Regulation should not apply to wooden ships of a primitive build and focus on ships with a gross tonnage above 5 000. Even though these latter ships represent only approximately 55 % of all ships calling at ports under the Regulation (EU) 2015/757 of the European Parliament and of the Council, they are responsible for 90 % of the carbon dioxide (CO₂) emissions from the maritime sector.

Amendment 18
Proposal for a regulation
Recital 7 a (new)

Text proposed by the Commission

Amendment

- (7a) *In order to ensure the continuing effectiveness of this Regulation, the Commission should monitor its functioning, carrying out impact assessments in respect of the gross tonnage threshold and the ship types covered by this Regulation. The Commission should, in particular, decide whether there are significant reasons to encompass smaller ships and additional ship types within the scope of this Regulation. The Commission should in particular take into account considerations such as the availability of relevant data, the potential GHG emissions reduction and the effectiveness of a scope widening in terms of climate impact, the scale of administrative burden, as well as financial and social consequences thereof.*

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Amendment 19
Proposal for a regulation
Recital 9

Text proposed by the Commission

- (9) While instruments such as carbon pricing or targets on the carbon intensity of activity promote improvements in energy efficiency, they are not suited to bring about a significant shift towards renewable and low-carbon fuels in the short and medium term. A specific regulatory approach dedicated to the deployment of renewable and low-carbon marine fuels and substitute sources of energy, such as wind or electricity, is therefore necessary.

Amendment

- (9) While instruments such as carbon pricing or targets on the carbon intensity of activity promote improvements in energy efficiency, they are not suited to bring about a significant shift towards renewable and low-carbon fuels in the short and medium term. A specific regulatory approach dedicated to the deployment of renewable and low-carbon marine fuels and substitute sources of energy, such as wind or electricity, is therefore necessary. ***That approach should be implemented in a goal-based, technology-neutral and cost-effective manner.***

Amendment 20
Proposal for a regulation
Recital 10

Text proposed by the Commission

- (10) Policy intervention to stimulate demand of renewable and low-carbon maritime fuels should be goal-based and respect the principle of technological neutrality. Accordingly, limits should be set on the greenhouse gas intensity of the energy used on-board by ships without prescribing the use of any particular fuel or technology.

Amendment

- (10) Policy intervention to stimulate demand of renewable and low-carbon maritime fuels should be goal-based and respect the principle of technological neutrality. Accordingly, ***ambitious*** limits, ***in line with the goals of the Paris Agreement***, should be set on the greenhouse gas intensity of the energy used on-board by ships without prescribing the use of any particular fuel or technology.

Amendment 21
Proposal for a regulation
Recital 10 a (new)

Text proposed by the Commission

Amendment

- (10a) ***A dedicated Ocean Fund should be established, channelling revenues generated from the auctioning of maritime allowances within the ETS back to the maritime sector. Funds provided under the Ocean Fund should be used to support projects and investments related to the improvement of the energy efficiency of ships and ports, to innovative technologies and infrastructure for decarbonising maritime transport, to the production and deployment of sustainable alternative fuels and to the development of zero-emission propulsion technologies.***

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Amendment 22
Proposal for a regulation
Recital 11

Text proposed by the Commission

- (11) Development and deployment of renewable and low carbon fuels with a high potential for sustainability, commercial maturity and a high potential for innovation and growth to meet future needs should be promoted. This will support creating innovative and competitive fuels markets and ensure sufficient supply of sustainable maritime fuels in the short and long term to contribute to Union transport decarbonisation ambitions, while strengthening Union's efforts towards a high level of environmental protection. For this purpose, sustainable maritime fuels produced from feedstock listed in Parts A and B of Annex IX of Directive (EU) 2018/2001, as well as synthetic maritime fuels should be eligible. In particular, sustainable maritime fuels produced from feedstock listed in Part B of Annex IX of Directive (EU) 2018/2001 are essential, as currently the most commercially mature technology to decarbonise **maritime** transport already in the short term.

Amendment

- (11) Development and deployment of renewable and low carbon fuels **and propulsion technologies** with a high potential for sustainability, commercial maturity and a high potential for innovation and growth to meet future needs should be promoted. This will support creating innovative and competitive fuels markets and ensure sufficient supply of sustainable maritime fuels in the short and long term to contribute to Union transport decarbonisation ambitions, while strengthening Union's efforts towards a high level of environmental protection. For this purpose, sustainable maritime fuels produced from feedstock listed in Parts A and B of Annex IX of Directive (EU) 2018/2001, as well as synthetic maritime fuels should be eligible. In particular, sustainable maritime fuels produced from feedstock listed in Part B of Annex IX of Directive (EU) 2018/2001 are essential, as currently the most commercially mature technology to decarbonise **maritime** transport already in the short term.

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Amendment 23
Proposal for a regulation
Recital 11 a (new)

Text proposed by the Commission

Amendment

- (11a) *In order to encourage the early market development and deployment of the most sustainable and innovative fuel technologies with growth potential to meet future needs, a dedicated incentive for renewable fuels of non-biological origin (RFNBO) is necessary. This family of fuels has high potential to introduce renewable energy into the marine bunker fuel mix. In view of significantly higher production costs for RFNBOs in the short and medium terms, it is important to ensure a degree of demand that supports investment in such family of fuels. This Regulation introduces a combination of measures to ensure the support to the uptake of sustainable RFNBOs. These include (a) a multiplier until 2035 to reward companies that decide to opt for these fuels despite their relatively high price, and (b) from 2030 a fixed minimum share of RFNBOs in the fuel energy mix. To facilitate compliance with the minimum share of RFNBOs, flexibility measures according to Articles 17 and 18 of this Regulation should apply. Companies can, by means of contractual arrangements, hold the fuel suppliers accountable for the compliance costs under this Regulation, if RFNBOs were not delivered according to agreed conditions.*

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Amendment 24
Proposal for a regulation
Recital 13

Text proposed by the Commission

- (13) However, this approach must be stricter in the maritime sector. The maritime sector has currently insignificant levels of demand for food and feed crops-based biofuels, bioliquids and biomass fuels, since over 99 % of currently used marine fuels are of fossil origin. Therefore, the non-eligibility of food and feed crop-based fuels under this Regulation also minimises any risk to slow down the decarbonisation of the transport sector, which could otherwise result from a shift of crop-based biofuels from the road to the maritime sector. It is essential to minimise such a shift, as road transport currently remains by far the most polluting transport sector and the maritime transport currently uses **predominanetly** fuels of fossil origin. It is therefore appropriate to avoid the creation of a potentially large demand of food and feed crops-based biofuels, bioliquids and biomass fuels by promoting their use under this Regulation. Accordingly, the additional greenhouse gas emissions and loss of biodiversity caused by all types of feed and food crop-based fuels require that these fuels be considered to have the same emission factors as the least favourable pathway.

Amendment

- (13) However, this approach must be stricter in the maritime sector. The maritime sector has currently insignificant levels of demand for food and feed crops-based biofuels, bioliquids and biomass fuels, since over 99 % of currently used marine fuels are of fossil origin. Therefore, the non-eligibility of food and feed crop-based fuels under this Regulation also minimises any risk to slow down the decarbonisation of the transport sector, which could otherwise result from a shift of crop-based biofuels from the road to the maritime sector. It is essential to minimise such a shift, as road transport currently remains by far the most polluting transport sector and the maritime transport currently uses **predominantly** fuels of fossil origin. It is therefore appropriate to avoid the creation of a potentially large demand of food and feed crops-based biofuels, bioliquids and biomass fuels by promoting their use under this Regulation. Accordingly, the additional greenhouse gas emissions and loss of biodiversity caused by all types of feed and food crop-based fuels require that these fuels be considered to have the same emission factors as the least favourable pathway.

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Amendment 25
Proposal for a regulation
Recital 14

Text proposed by the Commission

- (14) The long lead times associated **to** the development and deployment of new fuels and energy solutions for maritime transport require rapid action and the establishment of a clear and predictable long-term regulatory framework facilitating planning and investment from all the stakeholders concerned. A clear and stable long-term regulatory framework will facilitate the development and deployment of new fuels and energy solutions for maritime transport, and encourage investment from stakeholders. Such framework should define limits for the greenhouse gas intensity of the energy used on-board by ships until 2050. Those limits should become more ambitious over time to reflect the expected technology development and increased production of marine renewable and low carbon fuels.

Amendment

- (14) The long lead times associated **with** the development and deployment of new fuels and energy solutions for maritime transport, **as well as the long average lifespan of ships, which typically range between 25 and 30 years,** require rapid action and the establishment of a clear and predictable long-term regulatory framework facilitating planning and investment from all the stakeholders concerned. A clear and stable long-term regulatory framework will facilitate the development and deployment of new fuels and energy solutions for maritime transport, and encourage investment from stakeholders. Such framework should define limits for the greenhouse gas intensity of the energy used on-board by ships, **both during navigation and at berth,** until 2050. Those limits should become more ambitious over time to reflect the expected technology development and increased production of marine renewable and low carbon fuels. **To ensure legal certainty and to allow sufficient time for the sector to plan and prepare for the long-term, as well as to avoid the risk of stranded assets, any future proposals to amend this Regulation should be limited in scope and should avoid significant changes to the requirements.**

Amendment 26
Proposal for a regulation
Recital 15

Text proposed by the Commission

- (15) This Regulation should establish the methodology and the formula that should apply to calculate the yearly average greenhouse gas intensity of the energy used on-board by a ship. This formula should be based on the fuel consumption reported by ships and consider the relevant emission factors of these fuels. The use of substitute sources of energy, such as wind or electricity, should also be reflected in the methodology.

Amendment

- (15) This Regulation should establish the methodology and the formula that should apply to calculate the yearly average greenhouse gas intensity of the energy used on-board by a ship. This formula should be based on the fuel consumption reported by ships and consider the relevant emission factors of these fuels. The use of substitute sources of energy, such as wind or **solar power, generated on-board, or electricity provided at berth,** should also be reflected in the methodology.

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Amendment 27
Proposal for a regulation
Recital 16

Text proposed by the Commission

- (16) In order to provide a more complete picture of the environmental performance of the various energy sources, the GHG performance of fuels should be assessed on a well-to-wake basis, taking into account the impacts of energy production, transport, distribution and use on-board. This is to incentivise technologies and production pathways that provide a lower GHG footprint and real benefits compared to the existing conventional fuels.

Amendment

- (16) In order to provide a more complete picture of the environmental performance of the various energy sources, the GHG performance of fuels should be assessed on a well-to-wake basis, taking into account the impacts of energy production, transport, distribution and use on-board, **accounting for the footprints of the various stages of the fuel lifecycle**. This is to incentivise technologies and production pathways that provide a lower GHG footprint and real benefits compared to the existing conventional fuels.

Amendment 28
Proposal for a regulation
Recital 17

Text proposed by the Commission

- (17) The well-to-wake performance of **renewable and low-carbon** maritime fuels should be established using default or actual and certified emission factors covering the well-to-tank and tank-to-wake emissions. **The performance of fossil fuels should however only be assessed through the use of default emission factors as provided for by this Regulation.**

Amendment

- (17) The well-to-wake performance of maritime fuels should be established using default or actual and certified emission factors covering the well-to-tank and tank-to-wake emissions.

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Amendment 29
Proposal for a regulation
Recital 21

Text proposed by the Commission

- (21) The use of on-shore power supply (OPS) abates air pollution produced by ships as well as reduces the amount of GHG emissions generated by maritime transport. OPS represents an increasingly clean power supply available to ships at berth, in view of the growing renewables **share** in the EU electricity mix. While only the provision on OPS connection points is covered by Directive 2014/94/EU (Alternative Fuels Infrastructure Directive — AFID), the demand for and, as a result, the deployment of this technology has remained limited. **Therefore** specific rules should be established to mandate the use of OPS by the most polluting ships.

Amendment

- (21) The use of on-shore power supply (OPS) abates air pollution produced by ships **at berth** as well as reduces the amount of GHG emissions generated by maritime transport **when at berth**. OPS represents an increasingly clean power supply available to ships at berth, in view of the growing **shares of renewables and fossil free energy sources** in the EU electricity mix. While only the provision on OPS connection points is covered by Directive 2014/94/EU (Alternative Fuels Infrastructure Directive — AFID), the demand for and, as a result, the deployment of this technology has remained limited. **To ensure that air pollution at berth is abated and that OPS infrastructure is economically viable and delivers a return on investment**, specific rules should be established to mandate the use of OPS by the most polluting ships **in situations where that use would effectively reduce emissions at a reasonable cost**.

Amendment 30
Proposal for a regulation
Recital 22

Text proposed by the Commission

- (22) In addition to OPS, other technologies might be capable of offering equivalent environmental benefits in ports. When the use of an alternative technology is demonstrated to be equivalent to the use of OPS, a ship should be exempted from its use of OPS.

Amendment

- (22) In addition to OPS, other **zero emission** technologies might be capable of offering equivalent environmental benefits in ports. When the use of an alternative technology is demonstrated to be equivalent to the use of OPS, **in terms of air pollution and GHG emissions reduction**, a ship should be exempted from its use of OPS.

Wednesday 19 October 2022

Amendment 31
Proposal for a regulation
Recital 23

Text proposed by the Commission

- (23) Exceptions to the use of OPS should also be provided for a number of objective reasons, certified by the managing body of the port of call **and** limited to unscheduled port calls for reasons of safety or saving life at sea, for short stays of ships at berth of less than two hours as this is the minimum time required for connection, and for the use of on-board energy generation under emergency situations.

Amendment

- (23) Exceptions to the use of OPS should also be provided for a number of objective reasons, certified by the managing body of the port of call, **the terminal operator or the competent authority, depending on the governance model for ports in the different Member States. Those exceptions should be** limited to unscheduled port calls for reasons of safety or saving life at sea, for short stays of ships at berth of less than two hours as this is the minimum time required for connection, and for the use of on-board energy generation under emergency situations. **If it is impossible to supply sufficient on-shore power, due to insufficient capacity in the local grid connected to the port, this should not be considered to be a failure by the port or by the ship owner or operator to comply with the requirements of this Regulation, provided that the insufficient local grid capacity is duly attested by the grid manager to the verifiers.**

Wednesday 19 October 2022

Amendment 32
Proposal for a regulation
Recital 24

Text proposed by the Commission

- (24) Exceptions in case of unavailability or incompatibility of OPS should be limited after ship and port operators have had sufficient time to make the necessary investments, in order to provide the necessary incentives for those investments and avoid unfair competition. **As of 2035**, ship operators should plan carefully their **port** calls to make sure that they can carry out their activities without emitting air pollutants and GHG at berth and compromise the environment in coastal areas and port cities. A limited number of exceptions in case of unavailability or incompatibility of OPS **shoud** be maintained in order to provide the possibility for occasional last-minute changes in port call schedules and calls in ports with incompatible equipment.

Amendment

- (24) Exceptions in case of unavailability or incompatibility of OPS should be limited after ship and port operators have had sufficient time to make the necessary investments, in order to provide the necessary incentives for those investments and avoid unfair competition. **In order to ensure full interoperability, ports should equip their berths, and ship owners their vessels, with power installations that comply with applicable standards. From 2035**, ship operators should plan carefully their calls **at TEN-T ports covered by the Regulation XXXX-XXX (Alternative Fuels Infrastructure Regulation)** to make sure that they can carry out their activities without emitting air pollutants and GHG at berth and compromise the environment in coastal areas and port cities. A limited number of exceptions in case of unavailability or incompatibility of OPS **should** be maintained in order to provide the possibility for occasional last-minute changes in port call schedules and calls in ports with incompatible equipment. **In order to mitigate the risk of stranded assets, incompatibility of OPS infrastructure on board and at berth as well as alternative fuel demand and supply imbalances, frequent consultation meetings between relevant stakeholders should be organised to discuss and take decisions on requirements and future plans.**

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Amendment 33
Proposal for a regulation
Recital 24 a (new)

Text proposed by the Commission

Amendment

- (24a) *The targets for provision of OPS laid down in Regulation XXXX-XXX (Alternative Fuels Infrastructure Regulation) take into account the types of vessels served and the respective traffic volumes of maritime ports. The requirement for ships to connect to OPS while at berth should not apply to vessels when calling at ports outside the scope of the OPS requirement by that Regulation, unless the port has OPS installed and available at the visited berth. If a ship calls at a non-TEN-T port at which OPS is available, that ship should connect to the OPS while at berth.*

Amendment 34
Proposal for a regulation
Recital 24 b (new)

Text proposed by the Commission

Amendment

- (24b) *Even if OPS is an important tool to reduce local emissions of air pollutants, its potential to reduce greenhouse gas emissions depends entirely on the energy mix that is fed through the cables. To realise the full climate and environmental potential of OPS, Member States should increase the capacity and connectivity of electricity grids and continue to reduce the GHG intensity of their energy mixes, so as to provide ports with affordable, plannable and fossil free electricity.*

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Amendment 35
Proposal for a regulation
Recital 24 c (new)

Text proposed by the Commission

Amendment

- (24c) *The implementation of this Regulation should take due account of the diverse governance models for ports across the Union, in particular as regards the responsibility for issuing a certificate exempting a vessel from the obligation to connect to OPS.*

Amendment 36
Proposal for a regulation
Recital 24 d (new)

Text proposed by the Commission

Amendment

- (24d) *Coordination between ports and ship operators is crucial to ensure smooth connection procedures to on-shore power in ports. Ship operators should inform the ports they call at about their intentions to connect to on-shore power and the amount of power needed during the given call, in particular when it exceeds the estimated needs for this ship category.*

Amendment 37
Proposal for a regulation
Recital 25

Text proposed by the Commission

Amendment

- (25) A robust monitoring, reporting and verification system should be put in place by this Regulation in order to trace compliance with its provisions. Such system should apply in a non-discriminatory way to all ships and require third party verification in order to ensure the accuracy of the data submitted within this system. In order to facilitate achieving the objective of this Regulation, any data already reported for the purpose of Regulation (EU) 2015/757 should be used, when necessary, for verifying compliance with this Regulation in order to limit administrative burden imposed on companies, verifiers and maritime authorities.

- (25) A robust **and transparent** monitoring, reporting and verification system should be put in place by this Regulation in order to trace compliance with its provisions. Such system should apply in a non-discriminatory way to all ships and require third party verification in order to ensure the accuracy of the data submitted within this system. In order to facilitate achieving the objective of this Regulation, any data already reported for the purpose of Regulation (EU) 2015/757 should be used, when necessary, for verifying compliance with this Regulation in order to limit administrative burden imposed on companies, verifiers and maritime authorities.

Wednesday 19 October 2022

Amendment 38
Proposal for a regulation
Recital 26

Text proposed by the Commission

- (26) Companies should be responsible for monitoring and reporting the amount and type of energy used on-board by ships in navigation and at berth, as well as other relevant information, such as information on the type of engine on board **or presence of** wind assisting technologies, with a view to showing compliance with the limit on the greenhouse gas intensity of the energy used on-board by a ship set out by this Regulation. To facilitate the fulfilment of these monitoring and reporting obligations and the verification process by the verifiers, similarly to Regulation (EU) 2015/757, companies should document the envisaged monitoring method and provide further details on the application of the rules of this Regulation in a monitoring plan. The monitoring plan, as well as its subsequent modifications, if applicable, should be submitted to the verifier.

Amendment

- (26) Companies should be responsible for monitoring and reporting the amount and type of energy used on-board by ships in navigation and at berth, as well as other relevant information, such as information on the type of engine on board **and the technical specification of the** wind assisting technologies, **or any other alternative source of energy present on-board**, with a view to showing compliance with the limit on the greenhouse gas intensity of the energy used on-board by a ship set out by this Regulation. To facilitate the fulfilment of these monitoring and reporting obligations and the verification process by the verifiers, similarly to Regulation (EU) 2015/757, companies should document the envisaged monitoring method and provide further details on the application of the rules of this Regulation in a monitoring plan. The monitoring plan, as well as its subsequent modifications, if applicable, should be submitted to the verifier.

Wednesday 19 October 2022

Amendment 39
Proposal for a regulation
Recital 27

Text proposed by the Commission

- (27) Certification of fuels is essential to achieve the objectives of this Regulation and guarantee the environmental integrity of the renewable and low-carbon fuels that are expected to be deployed in the maritime sector. Such certification should be undertaken by means of a transparent and non-discriminatory procedure. With a view to facilitating certification and limiting the administrative burden, the certification of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuel should rely on the rules established by Directive (EU) 2018/2001. This approach of certification should also apply to fuels bunkered outside the Union, which should be considered as imported fuels, in a similar way as Directive (EU) 2018/2001. When companies intend to depart from the default values provided for by that Directive or this new framework, this should only be done when values can be certified by one of the voluntary schemes recognised under Directive (EU) 2018/2001 (for well-to-tank values) or by means of **laboratory testing or** direct emissions measurements (tank-to-wake).

Amendment

- (27) **A robust certification and monitoring** of fuels is essential to achieve the objectives of this Regulation and guarantee the environmental integrity of the renewable and low-carbon fuels that are expected to be deployed in the maritime sector. Such certification should be undertaken by means of a transparent and non-discriminatory procedure. With a view to facilitating certification and limiting the administrative burden, the certification of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuel should rely on the rules established by Directive (EU) 2018/2001. This approach of certification should also apply to fuels bunkered outside the Union, which should be considered as imported fuels, in a similar way as Directive (EU) 2018/2001. When companies intend to depart from the default values provided for by that Directive or this new framework, this should only be done when values can be certified by one of the voluntary schemes recognised under Directive (EU) 2018/2001 (for well-to-tank values) or by means of direct emissions measurements (tank-to-wake).

Amendment 40
Proposal for a regulation
Recital 27 a (new)

Text proposed by the Commission

Amendment

- (27a) *The reliability and accuracy of the information concerning the characteristics of fuels is essential for the enforcement of this Regulation. Fuel suppliers that have been proven to have provided misleading or inaccurate information about the greenhouse gas intensity of the fuels they supply should be subject to a penalty. Fuel suppliers who have repeatedly provided false or misleading information should be blacklisted from the certification schemes laid down in Directive (EU) 2018/2001 (Renewable Energy Directive). In such cases, any fuels bunkered from its facilities should be considered to have the same emission factor as the least favourable fossil fuel.*

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Amendment 41
Proposal for a regulation
Recital 28

Text proposed by the Commission

(28) Verification by accredited verifiers should ensure the accuracy and completeness of the monitoring and reporting by companies and the compliance with this Regulation. In order to ensure impartiality, verifiers should be independent and competent legal entities and should be accredited by national accreditation bodies established pursuant to Regulation (EC) No 765/2008 of the European Parliament and of the Council ⁽²⁴⁾ .

⁽²⁴⁾ Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

Amendment

(28) Verification by accredited verifiers should ensure the accuracy and completeness of the monitoring and reporting by companies and the compliance with this Regulation. In order to ensure impartiality **and effectiveness**, verifiers should be independent and competent legal entities and should be accredited **and overseen** by national accreditation bodies established pursuant to Regulation (EC) No 765/2008 of the European Parliament and of the Council ⁽²⁴⁾.

⁽²⁴⁾ Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93 (OJ L 218, 13.8.2008, p. 30).

Amendment 42
Proposal for a regulation
Recital 31 a (new)

Text proposed by the Commission

Amendment

(31a) ***Companies and fuel suppliers could, by means of contractual arrangements, agree on mutual commitments to produce, supply and purchase predetermined quantities of certain fuels. Such contractual arrangements should also cover liability and establish conditions for financial compensation in cases where fuels are not made available as agreed.***

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Amendment 43

Proposal for a regulation

Recital 36

Text proposed by the Commission

- (36) The penalty imposed for each non-compliant port call should be proportionate to the cost of using the electricity and at sufficient level to have a dissuasive effect from the use of more polluting energy sources. The penalty should be based on the power installed on board the vessel, expressed in megawatts, multiplied by a fixed penalty in EUR per hour of stay at berth. Due to lack of accurate figures on the cost of providing OPS in the Union, this rate should be based on the EU average electricity price for non-household consumers multiplied by a factor of two to account for other charges related to the provision of the service, including among others connection costs and investment recovery elements.

Amendment

- (36) The penalty imposed for each non-compliant port call should be proportionate to the cost of using the electricity and at sufficient level to have a dissuasive effect from the use of more polluting energy sources. The penalty should be based on the power installed on board the vessel, expressed in megawatts, multiplied by a fixed penalty in EUR per hour of stay at berth. Due to lack of accurate figures on the cost of providing OPS in the Union, this rate should be based on the **most updated** EU average electricity price for non-household consumers multiplied by a factor of two to account for other charges related to the provision of the service, including among others connection costs and investment recovery elements.

Amendment 44

Proposal for a regulation

Recital 37

Text proposed by the Commission

- (37) The revenues generated from the payment of penalties should be **used to promote the distribution and use of renewable and low-carbon fuels in the maritime sector and help maritime operators to meet their climate and environmental goals**. For this purpose these revenues should be allocated to the the **Innovation** Fund referred to in Article **10a(8)** of Directive 2003/87/EC.

Amendment

- (37) The revenues generated from the payment of penalties should be **earmarked for the maritime sector and used to promote its decarbonisation, including support for alternative fuels development, production and deployment, alternative fuels infrastructure and OPS infrastructure, as well as new innovative technologies** For this purpose these revenues should be allocated to the the **Ocean** Fund referred to in Article **3gab** of Directive 2003/87/EC.

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Amendment 45
Proposal for a regulation
Recital 39

Text proposed by the Commission

- (39) Given the importance of consequences that the measures taken by the verifiers under this Regulation may have for the companies concerned, in particular regarding the determination of non-compliant port calls, calculation of the amounts of penalties and refusal to issue a FuelEU certificate of compliance, those companies should be entitled to apply for a review of such measures to the competent authority in the Member State where the verifier was accredited. In the light of the fundamental right to an effective remedy, enshrined in Article 47 of the Charter of Fundamental Rights of the European Union, decisions taken by the competent authorities and the managing bodies of the port under this Regulation should be subject to judicial review, carried out in accordance with the national law of the Member State concerned.

Amendment

- (39) Given the importance of consequences that the measures taken by the verifiers under this Regulation may have for the companies concerned, in particular regarding the determination of non-compliant port calls, **the compiling of information for the** calculation of the amounts of penalties and refusal to issue a FuelEU certificate of compliance, those companies should be entitled to apply for a review of such measures to the competent authority in the Member State where the verifier was accredited. In the light of the fundamental right to an effective remedy, enshrined in Article 47 of the Charter of Fundamental Rights of the European Union, decisions taken by the competent authorities and the managing bodies of the port under this Regulation should be subject to judicial review, carried out in accordance with the national law of the Member State concerned.

Amendment 46
Proposal for a regulation
Recital 40

Text proposed by the Commission

- (40) In order to maintain a level playing field through the efficient functioning of this Regulation, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amendment of the list of well-to-wake emission factors, amendment of the list of the applicable zero-emission technologies or criteria for their use, to establish the rules on conducting **the laboratory testing and** direct emissions measurements, adaptation of the penalty factor, accreditation of verifiers, adaptation of the penalty factor, and modalities for the payment of penalties. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

Amendment

- (40) In order to maintain a level playing field through the efficient functioning of this Regulation, the power to adopt acts in accordance with Article 290 of the Treaty on the Functioning of the European Union should be delegated to the Commission in respect of amendment of the list of well-to-wake emission factors, amendment of the list of the applicable zero-emission technologies or criteria for their use, to establish **the rules on certifying actual well-to-tank emissions**, the rules on conducting direct emissions measurements, adaptation of the penalty factor, accreditation of verifiers, adaptation of the penalty factor, and modalities for the payment of penalties. It is of particular importance that the Commission carry out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making of 13 April 2016. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

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Amendment 47
Proposal for a regulation
Recital 42

Text proposed by the Commission

- (42) Given the international dimension of the maritime sector, a global approach to limiting the greenhouse gas intensity of the energy used by ships is preferable as it **could be regarded as** more effective due to its broader scope. In this context, and with a view to facilitating the development of international rules within the International Maritime Organisation (IMO), the Commission should share relevant information on the implementation of this Regulation with the IMO and other relevant international bodies and relevant submissions should be made to the IMO. Where an agreement on a global **approach** is reached on matters of relevance to this Regulation, the Commission should review the present Regulation **with a view to aligning it, where appropriate**, with the international rules.

Amendment

- (42) Given the international dimension of the maritime sector, a global approach to limiting the greenhouse gas intensity of the energy used by ships is preferable as it **would be significantly** more effective due to its broader scope. In this context, and with a view to facilitating the development of international rules within the International Maritime Organisation (IMO), the Commission should share relevant information on the implementation of this Regulation with the IMO and other relevant international bodies and relevant submissions should be made to the IMO, **continuing the EU's efforts to promote ambitious maritime decarbonisation targets on an international level**. Where an agreement on a global **approach** is reached on matters of relevance to this Regulation, the Commission should review the present Regulation **to align it** with the international rules.

Amendment 48
Proposal for a regulation
Recital 42 a (new)

Text proposed by the Commission

Amendment

- (42a) **To ensure an international level playing field and maximise the environmental impact of legislation on renewable and low-carbon fuels, the Commission and Members States should promote within the IMO and other international organisations robust certification and monitoring systems for renewable fuels.**

Amendment 49
Proposal for a regulation
Recital 42 b (new)

Text proposed by the Commission

Amendment

- (42b) **The Commission should ensure implementation and availability of tools for collaboration and exchange of best practices for the maritime transport sector, as defined in the 'Better Regulation Guidelines' ^(1a).**

^(1a) European Commission, Brussels, Commission Staff Working Document, Better Regulation Guidelines, 3.11.2021 SWD(2021)0305.

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Amendment 50
Proposal for a regulation
Recital 43

Text proposed by the Commission

- (43) The uptake of renewable and low-carbon fuels and substitute sources of energy by ships arriving at, within or departing from ports under the jurisdiction of a Member State across the Union, is not an objective that can be sufficiently achieved by the Member States without risking to introduce barriers to the internal market and distortions of competition between ports and between maritime operators. This objective can be better achieved by introducing uniform rules at Union level that create economic incentives for maritime operators to continue operating unimpededly while meeting obligations on the use of renewable and low-carbon fuels. Accordingly, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

Amendment

- (43) The **development and large-scale** uptake of renewable and low-carbon fuels and substitute sources of energy by ships arriving at, within or departing from ports under the jurisdiction of a Member State across the Union, is not an objective that can be sufficiently achieved by the Member States without risking to introduce barriers to the internal market and distortions of competition between ports and between maritime operators. This objective can be better achieved by introducing uniform rules at Union level that create economic incentives for maritime operators to continue operating unimpededly while meeting obligations on the use of renewable and low-carbon fuels. Accordingly, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective,

Amendment 51
Proposal for a regulation
Article 1 — paragraph 1 — point a

Text proposed by the Commission

- (a) **the** limit on the greenhouse gas ('GHG') intensity of energy used on-board by a ship arriving at, staying within or departing from ports under the jurisdiction of a Member State and

Amendment

- (a) **a** limit on the greenhouse gas ('GHG') intensity of energy used on-board by a ship arriving at, staying within or departing from ports under the jurisdiction of a Member State and

Amendment 52
Proposal for a regulation
Article 1 — paragraph 1 — point b

Text proposed by the Commission

- (b) **the** obligation to use on-shore power supply or zero-emission technology in ports under the jurisdiction of a Member State,

Amendment

- (b) **an** obligation to use on-shore power supply or zero-emission technology in ports under the jurisdiction of a Member State.

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Amendment 53

Proposal for a regulation

Article 1 — paragraph 1 — final part

Text proposed by the Commission

in order to increase consistent use of renewable and low-carbon fuels and substitute sources of energy across the Union, while ensuring the smooth operation of maritime traffic and avoiding distortions in the internal market.

Amendment

Its purpose in doing so is to increase consistent use of renewable and low-carbon fuels and substitute sources of energy ***in maritime transport*** across the Union, ***in line with the Union's objective of reaching climate neutrality at the latest by 2050 and the goals of the Paris Agreement***, while ensuring the smooth operation of maritime traffic, ***creating development opportunities for the maritime industry*** and avoiding distortions in the internal market.

Amendment 54

Proposal for a regulation

Article 2 — paragraph 1 — introductory part

Text proposed by the Commission

This Regulation applies to all ships above a gross tonnage of 5 000, regardless of their flag in respect **to**:

Amendment

This Regulation applies to all ships above a gross tonnage of 5 000, regardless of their flag in respect **of**:

Amendment 55

Proposal for a regulation

Article 2 — paragraph 1 — point b

Text proposed by the Commission

(b) the entirety of the energy used on voyages from a port of call under the jurisdiction of a Member State to a port of call under the jurisdiction of a Member State, **and**

Amendment

(b) the entirety of the energy used on voyages from a port of call under the jurisdiction of a Member State to a port of call under the jurisdiction of a Member State,

Amendment 56

Proposal for a regulation

Article 2 — paragraph 1 — point b a (new)

Text proposed by the Commission

Amendment

(ba) half of the energy used on voyages departing from or arriving at a port of call located in an outermost region under the jurisdiction of a Member State, and

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Amendment 57

Proposal for a regulation

Article 2 — paragraph 1 — point c

Text proposed by the Commission

(c) **a** half of the energy used on voyages departing from or arriving **to** a port of call under the jurisdiction of a Member State, where the last or the next port of call is under the jurisdiction of a third country.

Amendment

(c) half of the energy used on voyages departing from or arriving **at** a port of call under the jurisdiction of a Member State, where the last or the next port of call is under the jurisdiction of a third country.

Amendment 58

Proposal for a regulation

Article 2 — paragraph 2

Text proposed by the Commission

This Regulation does not apply to warships, naval auxiliaries, fish-catching or fish-processing ships, wooden ships of a primitive build, **ships not propelled by mechanical means**, or government ships used for non-commercial purposes.

Amendment

This Regulation does not apply to warships, naval auxiliaries, fish-catching or fish-processing ships, wooden ships of a primitive build, or government ships used for non-commercial purposes.

Amendment 59

Proposal for a regulation

Article 2 — paragraph 2 a (new)

Text proposed by the Commission

Amendment

By 31 December 2025, the Commission shall adopt an implementing act establishing the list of neighbouring container transshipment ports excluded from the definition of ports of call for containerships set out in this Regulation.

At least every two years thereafter, the Commission shall adopt implementing acts updating that list of neighbouring container transshipment ports excluded from the definition of ports of call for containerships set out in this Regulation.

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Text proposed by the Commission

Amendment

Those implementing acts shall list neighbouring container transshipment ports located outside the Union but less than 300 nautical miles of the Union territory, where the share of transshipment of containers, measured in twenty-foot equivalent unit, exceeds 65 % of the total container traffic of that port during the most recent twelve-month period for which relevant data are available.

For the purpose of that list, containers shall be considered to be transshipped when they are unloaded from a ship to the port for the sole purpose of loading them on another ship. Ports located in a third country that effectively applies measures that are as ambitious as the requirements set out in this Regulation shall not be included.

Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 27(3).

Amendment 60

Proposal for a regulation

Article 2 — paragraph 2 b (new)

Text proposed by the Commission

Amendment

Member States may, in respect of the energy used on voyages performed by passenger ships other than cruise passenger ships between a port of call under the jurisdiction of a Member State and a port of call under the jurisdiction of the same Member State located in an island with fewer than 100 000 permanent residents, and in respect of the energy used during their stay within a port call of the corresponding island, exempt specific routes and ports from the application of paragraph 1(a) and (b). Member States shall notify those exemptions prior to their entry into force to the Commission, which shall publish them in the Official Journal of the European Union. No such exemptions shall apply beyond 31 December 2029.

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Amendment 61**Proposal for a regulation****Article 2 — paragraph 2 c (new)**

Text proposed by the Commission

Amendment

Member States may, in respect of the energy used on voyages between a port of call located in an outermost region and another port of call located in an outermost region, and in respect of the energy used during their stay within the ports of call of the corresponding outermost regions, exempt specific routes and ports from the application of paragraph 1(a) and (ba). Member States shall notify those exemptions prior to their entry into force to the Commission, which shall publish them in the Official Journal of the European Union. No such exemptions shall apply beyond 31 December 2029. Nothing shall prevent Member States, their regions and territories, from deciding not to apply this exemption or from bringing any exemption that they have granted to an end before 31 December 2029.

Amendment 62**Proposal for a regulation****Article 2 — paragraph 2 d (new)**

Text proposed by the Commission

Amendment

Member States may, in respect of the energy used on voyages performed in the framework of a public service contract or on voyages undertaken by vessels subject to public service obligations in accordance to Council Regulation (EEC) No 3577/92, exempt specific routes from the application of paragraph 1. Member States shall notify such exemptions prior to their entry into force to the Commission, which shall publish them in the Official Journal of the European Union. No such exemptions shall apply beyond 31 December 2029.

Amendment 63**Proposal for a regulation****Article 2 — paragraph 2 e (new)**

Text proposed by the Commission

Amendment

The Commission shall continuously monitor the impact of this Regulation on cargo diversion, in particular via transshipment ports in neighbouring countries. Where the Commission identifies major negative impacts on Union ports, the Commission shall submit legislative proposals to the European Parliament and to the Council to amend this Regulation. In particular, the Commission shall analyse the impact of this Regulation on outermost regions and islands, and shall, where appropriate, propose amendments to the scope of this Regulation.

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Amendment 64

Proposal for a regulation

Article 3 — paragraph 1 — point h

Text proposed by the Commission

(h) ‘substitute sources of energy’ means renewable **wind or solar** energy generated on-board or electricity supplied from on-shore power supply;

Amendment

(h) ‘substitute sources of energy’ means renewable energy generated on-board or electricity supplied from on-shore power supply;

Amendment 65

Proposal for a regulation

Article 3 — paragraph 1 — point h a (new)

Text proposed by the Commission

Amendment

(ha) ‘wind propulsion’ or ‘wind-assisted propulsion’ means a propulsion technique that contributes primarily or in an auxiliary manner to the propulsion of any type of vessel via the energy of the wind, which is harnessed when the ship is sailing;

Amendment 66

Proposal for a regulation

Article 3 — paragraph 1 — point i

Text proposed by the Commission

(i) ‘port of call’ means **a port of call as defined in Article 3, point (b) of Regulation (EU) 2015/757;**

Amendment

(i) ‘port of call’ means **the port where a ship stops to load or unload a substantial part of its cargo or to embark or disembark passengers; and consequently, excludes stops for the sole purposes of refuelling, obtaining supplies, relieving the crew, going into dry-dock or making repairs to the ship or its equipment, stops in port because the ship is in need of assistance or in distress, ship-to-ship transfers carried out outside ports, stops for the sole purpose of taking shelter from adverse weather or rendered necessary by search and rescue activities, and stops of container ships in a neighbouring container transshipment port;**

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Amendment 67

Proposal for a regulation

Article 3 — paragraph 1 — point m

Text proposed by the Commission

(m) 'ship at berth' means **ship at berth as defined in Article 3, point (n) of Regulation (EU) 2015/757**;

Amendment

(m) 'ship at berth' means **a ship which is securely moored at the quayside in a port falling under the jurisdiction of a Member State while it is loading, unloading, embarking or disembarking passengers or hotelling, including the time spent when not engaged in cargo or passenger operations**;

Amendment 68

Proposal for a regulation

Article 3 — paragraph 1 — point n

Text proposed by the Commission

(n) 'energy use on-board' means the amount of energy, expressed in mega joules (MJ), used by a ship for propulsion and for the operation of any on-board equipment, at sea or at berth;

Amendment

(n) 'energy use on-board' means the amount of energy, expressed in mega joules (MJ), used by a ship for propulsion and for the operation of any on-board equipment, at sea or at berth, **excluding the additional energy used due to the technical characteristics of a ship in ice class IA or IA Super, or an equivalent ice class, and excluding the additional energy used by a ship in ice class IC, IB, IA or IA Super, or an equivalent ice class due to sailing in ice conditions**;

Amendment 69

Proposal for a regulation

Article 3 — paragraph 1 — point q a (new)

Text proposed by the Commission

Amendment

(qa) 'ice class' means **the notation assigned to the ship by the competent national authorities of the flag state or an organisation recognised by that state, showing that the ship has been designed for navigation in sea-ice conditions**;

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Amendment 70

Proposal for a regulation

Article 3 — paragraph 1 — point q b (new)

Text proposed by the Commission

Amendment

(qb) **'sailing in ice conditions' means the sailing by an ice class ship in a sea area within the ice edge;**

Amendment 71

Proposal for a regulation

Article 3 — paragraph 1 — point q c (new)

Text proposed by the Commission

Amendment

(qc) **'ice edge' means the demarcation at any given time between the open sea and sea ice of any kind, whether fast or drifting;**

Amendment 72

Proposal for a regulation

Article 3 — paragraph 1 — point r

Text proposed by the Commission

Amendment

(r) 'on-shore power supply' means the system to supply electricity to ships at berth, at low or high voltage, alternate or direct current, including ship side and shore side installations, **when** feeding **directly** the ship main distribution switchboard for powering hotel, service workloads or charging secondary batteries;

(r) 'on-shore power supply' means the system to supply electricity to ships at berth, at low or high voltage, alternate or direct current, including ship side and shore side **fixed, floating and mobile** installations, feeding the ship main distribution switchboard for powering hotel, service workloads or charging secondary batteries;

Amendment 73

Proposal for a regulation

Article 4 — paragraph 2 — indent 3

Text proposed by the Commission

Amendment

— **-13 %** from 1 January 2035;

— **-20 %** from 1 January 2035;

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Amendment 74**Proposal for a regulation****Article 4 — paragraph 2 — indent 4***Text proposed by the Commission*

— -26 % from 1 January 2040;

Amendment

— -38 % from 1 January 2040;

Amendment 75**Proposal for a regulation****Article 4 — paragraph 2 — indent 5***Text proposed by the Commission*

— -59 % from 1 January 2045;

Amendment

— -64 % from 1 January 2045;

Amendment 76**Proposal for a regulation****Article 4 — paragraph 2 — indent 6***Text proposed by the Commission*

— -75 % from 1 January 2050.

Amendment

— -80 % from 1 January 2050.

Amendment 77**Proposal for a regulation****Article 4 — paragraph 2 — subparagraph 1***Text proposed by the Commission*

[Asterix: The reference value, **which** calculation will be carried out at a later stage of the legislative procedure, corresponds to the fleet average greenhouse gas intensity of the energy used on-board by ships in 2020 determined on the basis data monitored and reported in the framework of Regulation (EU) 2015/757 and using the methodology and default values laid down in Annex I to that Regulation.]

Amendment

[Asterix: The reference value, **the** calculation **of which** will be carried out at a later stage of the legislative procedure, corresponds to the **Union** fleet average greenhouse gas intensity of the energy used on-board by ships in 2020 determined on the basis data monitored and reported in the framework of Regulation (EU) 2015/757 and using the methodology and default values laid down in Annex I to that Regulation.]

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Amendment 78

Proposal for a regulation

Article 4 — paragraph 3

Text proposed by the Commission

3. The greenhouse gas intensity of the energy used on-board by a ship shall be calculated as the amount of greenhouse gas emissions per unit of energy according to the methodology specified in Annex I.

Amendment

3. The greenhouse gas intensity of the energy used on-board by a ship shall be calculated as the amount of greenhouse gas emissions per unit of energy according to the methodology specified in Annex I. **For ships in ice classes, a correction factor shall be applied, resulting in the deduction of the higher fuel consumption linked to ice navigation.**

Amendment 79

Proposal for a regulation

Article 4 — paragraph 3 a (new)

Text proposed by the Commission

Amendment

3a. The default values set out in Annex II to this Regulation shall serve as the basis for the calculation of emission factors. Where actual values exist verified by means of certification or direct emissions measurements, those actual values may be used instead.

Amendment 80

Proposal for a regulation

Article 4 — paragraph 4

Text proposed by the Commission

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex II in order to include the well-to-wake emission factors related to any new sources of energy **or** to adapt the existing emission factors to ensure consistency with future international standards or the legislation of the Union in the field of energy.

Amendment

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex II in order to include the well-to-wake emission factors related to any new sources of energy, to adapt the existing emission factors to ensure consistency with future international standards or the legislation of the Union in the field of energy **and to ensure that they are as representative of real emissions throughout all stages of the fuel lifecycle as possible, in accordance with the best available scientific and technical knowledge.**

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Amendment 81**Proposal for a regulation****Article 4 — paragraph 4 a (new)**

Text proposed by the Commission

Amendment

4a. Consultations shall be organised between managing bodies of ports, terminal operators, ship-owners, ship-operators, fuel suppliers and other relevant stakeholders, to ensure cooperation with regard to the alternative fuel supply that is planned and deployed in individual ports, as well as with regard to the demand expected from vessels calling on those ports.

Amendment 82**Proposal for a regulation****Article 4 a (new)**

Text proposed by the Commission

*Amendment***Article 4a****Use of Renewable Fuels of Non-Biological Origin**

1. Member States shall take the necessary measures, if necessary drawing on the credit exchange mechanism established in Directive XXXX [Renewable Energy Directive], to ensure that renewable fuels of non-biological origin (RFNBOs) are made available in ports within their territory.

2. From 1 January 2025 to 31 December 2034, a multiplier of '2' shall be used in the denominator of Equation (1) of Annex I for the calculation of the greenhouse gas intensity of the energy used on-board, in order to reward companies for the use of RFNBO fuels.

3. From 1 January 2030, at least 2 % of the yearly average energy used on-board a ship shall be met with RFNBOs compliant with paragraph 1(b) of Article 9.

4. Until 31 December 2034 paragraph 3 shall not apply to companies, and their subsidiaries, operating three or fewer ships falling within the scope laid down in Article 2(1).

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Text proposed by the Commission

Amendment

5. By 2028 at the latest, the Commission shall assess the obligation laid down in paragraph 3 with a view to adjust it if:

- there are serious concerns about production capacity, availability or price of RFNBOs, or;
- there is a substantial cost reduction and a geographically comprehensive availability of RFNBOs and a need to increase the level of sub-quota to meet Union climate targets.

6. The Commission is empowered to adopt delegated acts in accordance with Article 26 to set the criteria for this assessment, and to adjust the obligations in Article 4a(3) and Annex V if deemed necessary by the assessment carried out in accordance with paragraph 5.

Amendment 83

Proposal for a regulation

Article 5 — paragraph 1

Text proposed by the Commission

Amendment

1. From 1 January 2030, a ship at berth in a port of call **under the jurisdiction of a Member State** shall connect to on-shore power supply and use it for all **energy** needs while at berth.

1. From 1 January 2030, a ship at berth in a port of call **covered by Article 9 of Regulation XXXX-XXX (Alternative Fuels Infrastructure Regulation)** shall connect to on-shore power supply and use it for all **its electricity** needs while at berth. **In the event that a non-TEN-T port has voluntarily installed OPS, ships calling at that port and having compatible OPS equipment on-board shall connect to OPS when available at the visited berth.**

Amendment 84

Proposal for a regulation

Article 5 — paragraph 3 — point b

Text proposed by the Commission

Amendment

(b) that use zero-emission technologies, as specified in Annex III;

(b) that use zero-emission technologies, as specified in Annex III **provided that they continuously achieve emissions that are equivalent to the emissions reductions that would be achieved by using on-shore power supply;**

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Amendment 85

Proposal for a regulation

Article 5 — paragraph 3 — point d

Text proposed by the Commission

- (d) that are unable to connect to on-shore power supply due to unavailable connection points in a port;

Amendment

- (d) that are unable to connect to on-shore power supply due to unavailable connection points in a port, **including due to a (temporary) lack of grid capacity, including during (seasonal) peak power demands by vessels at berth;**

Amendment 86

Proposal for a regulation

Article 5 — paragraph 3 — point e

Text proposed by the Commission

- (e) that are unable to connect to on-shore power supply because the shore installation at the port is not compatible with the on-board on-shore power equipment;

Amendment

- (e) that are unable to connect to on-shore power supply because the shore installation at the port is not compatible with the on-board on-shore power equipment **provided that the installation for shore-connection on-board the ship is certified in accordance with the standards specified in Annex II of Regulation XXXX-XXX (Alternative Fuels Infrastructure Regulation) for seagoing ships' shore connection systems;**

Amendment 87

Proposal for a regulation

Article 5 — paragraph 3 a (new)

Text proposed by the Commission

Amendment

3a. Ship operators shall inform in advance the ports that they call at about their intentions to connect to on-shore power supply or their intention to use a zero-emission technology as defined in Annex III of this Regulation. Ship operators shall also indicate, where applicable, the amount of power they expect to require during that call and inform about the available power equipment on-board.

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Amendment 88

Proposal for a regulation

Article 5 — paragraph 4

Text proposed by the Commission

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex III in order to insert references to new technologies in the list of applicable zero-emission technologies or criteria for their use, where these new technologies are found equivalent to the technologies listed in that Annex in the light of scientific and technical progress.

Amendment

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex III in order to insert references to new technologies in the list of applicable zero-emission technologies or **modify the** criteria for their use, where these new technologies **or criteria for use** are found **to be** equivalent to **or better than** the technologies listed in that Annex in the light of scientific and technical progress.

Amendment 89

Proposal for a regulation

Article 5 — paragraph 5

Text proposed by the Commission

5. The managing body of the port of call shall determine whether the exceptions set in paragraph 3 apply and issue or refuse to issue the certificate in accordance with the requirements set out in Annex IV.

Amendment

5. The managing body of the port of call, **or where applicable the operator of the terminal or the competent authority**, shall determine whether the exceptions set in paragraph 3 apply and issue or refuse to issue the certificate in accordance with the requirements set out in Annex IV.

Amendment 90

Proposal for a regulation

Article 5 — paragraph 6

Text proposed by the Commission

6. **From 1 January 2035, the exceptions listed in paragraph 3, points (d) and (e), may not be applied to a given ship, in total, more than five times during one reporting year. A port call shall not be counted for the purpose of compliance with this provision where the company demonstrates that it could not have reasonably known that the ship will be unable to connect for reasons referred to in paragraph 3, points (d) and (e).**

Amendment

deleted

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Amendment 91

Proposal for a regulation

Article 5 — paragraph 7 a (new)

Text proposed by the Commission

Amendment

7a. Consultations shall be organised between managing bodies of ports, terminal operators, ship-owners, ship-operators, OPS providers, grid managers and other relevant stakeholders to ensure cooperation on the OPS infrastructure that is planned and deployed in individual ports, as well as on the demand expected from vessels calling on these ports.

Amendment 92

Proposal for a regulation

Article 6 — paragraph 4

Text proposed by the Commission

Amendment

4. Companies shall obtain, record, compile, analyse and document monitoring data, including assumptions, references, emission factors and activity data, in a transparent and accurate manner, so that the verifier can determine the greenhouse gas intensity of the energy used on-board by ships.

4. Companies shall obtain, record, compile, analyse and document monitoring data, including assumptions, references, emission factors and activity data, **and any other information required to comply with this Regulation**, in a transparent and accurate manner, so that the verifier can determine the greenhouse gas intensity of the energy used on-board by ships.

Amendment 93

Proposal for a regulation

Article 7 — paragraph 3 — point e

Text proposed by the Commission

Amendment

(e) a description of the intended source(s) of energy to be used on-board while in navigation and at berth to comply with the requirements set out in Articles 4 and 5;

(e) a description of the intended source(s) of energy to be used on-board while in navigation and at berth to comply with the requirements set out in Articles 4 and 5, **as well as in Annexes I and III, respectively;**

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Amendment 94

Proposal for a regulation

Article 7 — paragraph 3 — point k

Text proposed by the Commission

(k) a description of the method to be used to determine surrogate data for closing data gaps;

Amendment

(k) a description of the method to be used to determine surrogate data for closing data gaps **or for identifying and correcting data errors;**

Amendment 95

Proposal for a regulation

Article 7 — paragraph 3 a (new)

Text proposed by the Commission

Amendment

3a. If the additional energy required due to the ship's ice class is to be excluded from the calculation of the energy used on-board, the monitoring plan shall also include:

(a) information on the ice class of the ship;

(b) a description of the procedure for monitoring the distance travelled for the whole voyage; and

(c) when sailing in ice conditions, the date and time when sailing in ice conditions, the fuel consumption and the energy provided by substitute sources of energy, or a zero emission technology as specified in Annex III when sailing in ice conditions.

Amendment 96

Proposal for a regulation

Article 8 — paragraph 1

Text proposed by the Commission

1. Companies shall check regularly, and at least annually, whether a ship's monitoring plan reflects the nature and functioning of the ship and whether any of the data it contains can be improved.

Amendment

1. Companies shall check regularly, and at least annually, whether a ship's monitoring plan reflects the nature and functioning of the ship and whether any of the data it contains can be improved, **corrected or updated.**

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Amendment 97

Proposal for a regulation

Article 8 — paragraph 2 — introductory part

Text proposed by the Commission

2. Companies shall modify the monitoring plan in any of the following situations:

Amendment

2. Companies shall modify the monitoring plan **without undue delay** in any of the following situations:

Amendment 98

Proposal for a regulation

Article 8 — paragraph 2 — point e a (new)

Text proposed by the Commission

Amendment

(ea) **where methods to prevent data gaps and identify data errors have been found to be inadequate to ensure data solidity and transparency.**

Amendment 99

Proposal for a regulation

Article 9 — paragraph 2

Text proposed by the Commission

2. Companies shall provide accurate and reliable data on the GHG emission intensity and the sustainability characteristics of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuel, verified by a scheme that is recognised by the Commission in accordance with Article 30(5) and (6) of the Directive (EU) 2018/2001.

Amendment

2. Companies shall provide accurate, **complete** and reliable data on the GHG emission intensity and the sustainability characteristics of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuel, verified by a scheme that is recognised by the Commission in accordance with Article 30(5) and (6) of the Directive (EU) 2018/2001.

Amendment 100

Proposal for a regulation

Article 9 — paragraph 3

Text proposed by the Commission

3. Companies shall be entitled to **divert** from the established default values for the tank-to-wake emission factors provided that actual values are certified by means of **laboratory testing or** direct emissions measurements. The Commission is empowered to adopt delegated acts in accordance with Article 26, in order to supplement this Regulation by establishing the rules on conducting the **laboratory testing and** direct emissions measurements.

Amendment

3. Companies shall be entitled to **diverge** from the established default values for the tank-to-wake emission factors provided that actual values are certified by means of direct emissions measurements **in accordance with existing certification and verification schemes laid down in the Directive (EU) 2018/2001 and Directive (EU) XXXX/XXXX (Gas Directive).** The Commission is empowered to adopt delegated acts in accordance with Article 26, in order to supplement this Regulation by establishing the rules on conducting the direct emissions measurements

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Amendment 101
Proposal for a regulation
Article 9 a (new)

Text proposed by the Commission

Amendment

Article 9a

Certification of other fuels

1. Companies shall be entitled to diverge from the established default values for the well-to-tank emission factors of all other fuels provided that actual values are established by means of certification or direct emissions measurements.
2. Companies shall be entitled to diverge from the established default values for the tank-to-wake emission factors of all other fuels provided that actual values are certified by means of direct emissions measurements.
3. The Commission is empowered to adopt delegated acts in accordance with Article 26, to supplement this Regulation by laying down rules on certifying real well-to-tank emissions and rules on conducting the direct emissions measurements.

Amendment 102
Proposal for a regulation
Article 10 — paragraph 1

Text proposed by the Commission

Amendment

1. The verifier shall assess the conformity of the monitoring plan with the requirements laid down in Articles 6 to 9. Where the verifier's assessment identifies non-conformities with those requirements, the company concerned shall revise its monitoring plan accordingly and submit the revised plan for a final assessment by the verifier before the reporting period starts. The company concerned shall agree with the verifier on the timeframe necessary to introduce those revisions. That timeframe shall in any event not extend beyond the beginning of the reporting period.

1. The verifier shall assess the conformity of the monitoring plan with the requirements laid down in Articles 6 to 9. Where the verifier's assessment identifies non-conformities with those requirements, the company concerned shall **without undue delay** revise its monitoring plan accordingly and submit the revised plan for a final assessment by the verifier before the reporting period starts. The company concerned shall agree with the verifier on the timeframe necessary to introduce those revisions. That timeframe shall in any event not extend beyond the beginning of the reporting period.

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Amendment 103**Proposal for a regulation****Article 10 — paragraph 3***Text proposed by the Commission*

3. Where the verification assessment identifies incorrect statements or non-conformities with this Regulation, the verifier shall inform the company concerned thereof in a timely manner. That company shall then amend the incorrect statements or non-conformities so as to enable the verification process to be completed in time.

Amendment

3. Where the verification assessment identifies incorrect statements or non-conformities with this Regulation, the verifier shall inform the company concerned thereof in a timely manner. That company shall then **without undue delay** amend the incorrect statements or non-conformities so as to enable the verification process to be completed in time.

Amendment 104**Proposal for a regulation****Article 11 — paragraph 2 — point d***Text proposed by the Commission*

(d) the use of on-shore power supply or the presence of exceptions certified in accordance with Article 5(5).

Amendment

(d) the use of on-shore power supply or the presence of exceptions **listed in Article 5(3)**, certified in accordance with Article 5(5).

Amendment 105**Proposal for a regulation****Article 11 — paragraph 3 — point d***Text proposed by the Commission*

(d) the relevant records of the ship are complete and consistent.

Amendment

(d) the relevant records of the ship are complete, **transparent** and consistent.

Amendment 106**Proposal for a regulation****Article 12 — paragraph 1***Text proposed by the Commission*

1. The verifier shall identify potential risks related to the monitoring and reporting process by comparing reported amount, type and emission factor of the energy used on-board by ships with estimated data based on ship tracking data and characteristics such as the installed engine power. Where significant **deviations** are found, the verifier shall carry out further analyses.

Amendment

1. The verifier shall identify potential risks related to the monitoring and reporting process by comparing reported amount, type and emission factor of the energy used on-board by ships with estimated data based on ship tracking data and characteristics such as the installed engine power. Where significant **divergences** are found **that would undermine the achievement of the targets of this Regulation**, the verifier shall carry out further analyses.

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Amendment 107

Proposal for a regulation

Article 13 — paragraph 1

Text proposed by the Commission

1. Verifiers shall be accredited for activities under the scope of this Regulation by a national accreditation body pursuant to Regulation (EC) No 765/2008.

Amendment

1. Verifiers shall be accredited for activities under the scope of this Regulation by a national accreditation body pursuant to Regulation (EC) No 765/2008. **The national accreditation body shall regularly notify to the Commission the list of accredited verifiers, together with all relevant contact information.**

Amendment 108

Proposal for a regulation

Article 13 — paragraph 1 a (new)

Text proposed by the Commission

Amendment

1a. National accreditation bodies shall make sure that the verifier:

(a) is knowledgeable in shipping;

(b) is equipped at all times with significant technical and support staff commensurate with the amount of vessels he verifies;

(c) is capable of assigning to every place of work, when and as needed, means and staff commensurate with the tasks to be carried out in accordance with the various tasks listed in Chapter V of the present regulation.

Amendment 109

Proposal for a regulation

Article 13 — paragraph 1 b (new)

Text proposed by the Commission

Amendment

1b. In order to exclude potential conflicts of interest, the verifier shall not be substantially dependent on a single company for its revenue.

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Amendment 110

Proposal for a regulation

Article 13 — paragraph 3

Text proposed by the Commission

3. The Commission is empowered to adopt delegated acts in accordance with Article 26, in order to supplement this Regulation by establishing further methods and criteria of accreditation of verifiers. The methods specified in those delegated acts shall be based on the principles for verification provided for in Articles 10 and 11 and on relevant internationally accepted standards.

Amendment

3. The Commission is empowered to adopt delegated acts in accordance with Article 26, in order to supplement this Regulation by establishing further methods and criteria of accreditation of verifiers **and other rules to ensure the verifiers' independence and impartiality**. The methods specified in those delegated acts shall be based on the principles for verification provided for in Articles 10 and 11 and on relevant internationally accepted standards.

Amendment 111

Proposal for a regulation

Article 14 — paragraph 1 — point c

Text proposed by the Commission

(c) the amount of each type of fuel consumed at berth and at sea;

Amendment

(c) the amount of each type of fuel consumed at berth and at sea, **including the amount of electricity taken at berth for navigational purposes**;

Amendment 112

Proposal for a regulation

Article 14 — paragraph 1 — point d

Text proposed by the Commission

(d) the well-to-wake emission factors for each type of fuel consumed at berth and at sea, broken down by well-to-tank, tank-to-wake and fugitive emissions, covering all relevant greenhouse gases;

Amendment

(d) the well-to-wake emission factors for each type of fuel, **including electricity taken from an onshore power supply**, consumed at berth and at sea, broken down by well-to-tank, tank-to-wake and fugitive emissions, covering all relevant greenhouse gases;

Amendment 113

Proposal for a regulation

Article 14 — paragraph 1 — point e

Text proposed by the Commission

(e) the amount of each type of substitute source of energy consumed at berth and at sea.

Amendment

(e) the amount of each type of substitute source of energy consumed at berth and at sea, **including fuels, electricity, wind and solar energy**.

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Amendment 114

Proposal for a regulation

Article 14 — paragraph 1 a (new)

Text proposed by the Commission

Amendment

1a. If the additional energy required due to the ship's ice class is to be excluded from the energy used on-board, the monitoring plan shall also include:

- (a) the ice class of the ship;
- (b) the date and time when sailing in ice conditions;
- (c) the amount of each type of fuel consumed when sailing in ice conditions;
- (d) the amount of each type of substitute source of energy consumed when sailing in ice conditions;
- (e) the distance travelled when sailing in ice conditions;
- (f) the distance travelled during the voyage;
- (g) the amount of each type of fuel consumed at sea; and
- (h) the amount of each type of substitute source of energy consumed at sea.

Amendment 115

Proposal for a regulation

Article 14 — paragraph 2

Text proposed by the Commission

Amendment

2. Companies shall record the information and data listed in paragraph 1 **on annual basis** in a transparent manner, **that enables** the verification of compliance with this Regulation by the verifier.

2. Companies shall record the information and data listed in paragraph 1 in a **timely and** transparent manner **and compile them on annual basis to enable** the verification of compliance with this Regulation by the verifier.

Amendment 116

Proposal for a regulation

Article 15 — paragraph 2 — point c a (new)

Text proposed by the Commission

Amendment

- (ca) **compile that information, provided pursuant to Article 14(3), and submit it to the Member State's competent authority.**

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Amendment 117

Proposal for a regulation

Article 15 — paragraph 2 — point d

Text proposed by the Commission

(d) calculate the amount of the penalties referred to in Article 20(1) and (2).

Amendment

deleted

Amendment 118

Proposal for a regulation

Article 15 — paragraph 3 a (new)

Text proposed by the Commission

Amendment

3a. On the basis of the information provided by the verifier, the Member State's competent authority shall calculate the amount of the penalties referred to in Article 20(1) and (2) and shall notify it to the company.

Amendment 119

Proposal for a regulation

Article 15 — paragraph 4 a (new)

Text proposed by the Commission

Amendment

4a. The administering authority in respect of a shipping company shall be:

- (a) in the case of a shipping company registered in a Member State, the Member State in which the shipping company is registered;
- (b) in the case of a shipping company that is not registered in a Member State, the Member State with the greatest estimated number of port calls from voyages performed by that shipping company in the last two monitoring years falling within the scope set out in Article 2;
- (c) in the case of a shipping company that is not registered in a Member State and that has not carried out any voyage falling within the scope set out in Article 2 in the preceding two monitoring years, the administering authority shall be the Member State from where the shipping company has started its first voyage falling within the scope set out in Article 2.

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Amendment 120

Proposal for a regulation

Article 16 — paragraph 1

Text proposed by the Commission

1. The Commission shall develop, ensure functioning and update an electronic compliance database for the monitoring of compliance with Articles 4 and 5. The compliance database shall be used to keep a record of the compliance balance of the ships and the use of the flexibility mechanisms set out in Articles 17 and 18. It shall be accessible to the companies, the verifiers, the competent authorities and the Commission.

Amendment

1. The Commission shall develop, ensure **the** functioning **of**, and update an electronic compliance database **integrated with the THETIS-MRV system established under Regulation (EU) 2015/757**, for the monitoring of compliance with Articles 4 and 5. The compliance database shall be used to keep a record of the compliance balance of the ships, **the use of the exemptions set out in Article 5(3)** and the use of the flexibility mechanisms set out in Articles 17 and 18 **and penalties incurred under Article 20**. It shall be accessible to the companies, the verifiers, the competent authorities and the Commission.

Amendment 121

Proposal for a regulation

Article 16 — paragraph 1 a (new)

Text proposed by the Commission

Amendment

1a. Companies shall be allowed to bank compliance surplus from ships not subject to this regulation that are fully propelled with renewable energy such as wind or solar as long as these ships are not used for leisure purposes only.

Amendment 122

Proposal for a regulation

Article 16 — paragraph 3

Text proposed by the Commission

3. By 30 April of each year, the company shall record in the compliance database for each of its ships the information referred to in Article 15(2), as ascertained by the verifier, together with information allowing to identify the ship, the company, as well as the identity of the verifier that carried out the assessment.

Amendment

3. By 30 April of each year, the company shall record in the compliance database for each of its ships the information referred to in Article 15(2), as ascertained **and calculated** by the verifier, **the use of the flexibility mechanisms set out in Articles 17 and 18, the yearly exceptions applied under Article 5(3), if any**, together with information allowing to identify the ship, the company, as well as the identity of the verifier that carried out the assessment.

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Amendment 123

Proposal for a regulation

Article 17 — paragraph 1

Text proposed by the Commission

1. Where the ship has **a compliance surplus** for the reporting period, the company may bank it to the same ship's compliance balance for the following reporting period. The company shall record the banking of the compliance surplus to the following reporting period in the compliance database subject to approval by its verifier. The company may no longer bank the compliance surplus once the FuelEU certificate of compliance has been issued.

Amendment

1. **Based on the information referred to in Article 15(2), where the ship has for the reporting period a compliance surplus on its greenhouse gas intensity or RFNBO quota as referred to in Articles 4(2) and 4a(3) respectively,** the company may bank it to the same ship's compliance balance for the following reporting period. The company shall record the banking of the compliance surplus to the following reporting period in the compliance database subject to approval by its verifier. The company may no longer bank the compliance surplus once the FuelEU certificate of compliance has been issued. **The unused compliance surplus for the following reporting period shall have a validity of three years.**

Amendment 124

Proposal for a regulation

Article 18 — paragraph 1

Text proposed by the Commission

1. The compliance balances of two or more ships, which are verified by the same verifier, may be pooled for the purposes of fulfilling the requirements of Article 4. A ship's compliance balance may not be included in more than one pool in the same reporting period.

Amendment

1. The compliance balances **for greenhouse gas intensity and RFNBO quota as referred to in Articles 4(2) and 4a(3) respectively,** of two or more ships, which are verified by the same verifier, may be pooled for the purposes of fulfilling the requirements of Article 4 **and 4a**. A ship's compliance balance may not be included in more than one pool in the same reporting period.

Amendment 125

Proposal for a regulation

Article 20 — paragraph 1

Text proposed by the Commission

1. Where on 1 May of the year following the reporting period the ship has a compliance deficit, the company shall pay a penalty. The verifier **shall** calculate the amount of the penalty on the basis of the **formula** specified Annex V.

Amendment

1. Where on 1 May of the year following the reporting period the ship has a compliance deficit, the company shall pay a remedial penalty. The **Member State's competent authority shall, based on the information provided by the** verifier, calculate the amount of the penalty on the basis of the **formulas** specified in Annex V, **for the greenhouse gas intensity limits and, where applicable, the RFNBO quota, as referred to in Articles 4(2) and 4a(3) respectively.**

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Amendment 126

Proposal for a regulation

Article 20 — paragraph 2

Text proposed by the Commission

2. The company shall pay a penalty for each non-compliant port call. The verifier **shall** calculate the amount of the penalty by multiplying the amount of EUR 250 by megawatts of power installed on-board and by the number of completed hours spent at berth.

Amendment

2. The company shall pay a penalty for each non-compliant port call. The **Member State's competent authority shall, based on the information provided by the** verifier, calculate the amount of the penalty by multiplying the amount of EUR 250 **at 2022 prices** by megawatts of power installed on-board and by the number of completed hours spent at berth. **For the purpose of this calculation, the amount of time needed to connect to OPS shall be deemed to be two hours, and that amount of time shall be subtracted by default from the calculation of the number of completed hours spent at berth to account for the time needed to connect to OPS.**

Amendment 127

Proposal for a regulation

Article 20 — paragraph 3 a (new)

Text proposed by the Commission

3a. The administering State in respect of a company shall ensure that, for any of its ships having compliance deficits on 1 June of the reporting year, after a possible validation by their competent authority, the company shall pay by 30 June of the reporting year an amount equal to the penalty resulting from the application of the formulas specified in Annex V Part B.

Amendment

Amendment 128

Proposal for a regulation

Article 20 — paragraph 3 b (new)

Text proposed by the Commission

3b. Where the company concludes a contract with a commercial operator specifying that this operator is responsible for the purchase of the fuel and the operation of the ship, the company and that commercial operator shall, by means of a contractual arrangement, determine that the latter shall be liable for the payment of the costs arising from the penalties referred to in this Article. For the purposes of this paragraph, being responsible for the operation of the ship shall mean determining the cargo carried, the itinerary, the routing and/or the speed of the ship.

Amendment

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Amendment 129

Proposal for a regulation

Article 20 — paragraph 3 c (new)

Text proposed by the Commission

Amendment

3c. Where the company or commercial operator concludes a contract with a fuel supplier, making the latter responsible for the supply of specific fuels, that contract shall include provisions laying down the fuel supplier's liability to compensate the company or commercial operator for the payment of penalties referred to in this Article, if fuels were not delivered according to the agreed terms. For the purpose of this paragraph, fuels supplied under mentioned contracts must be compliant with provisions in Article 9(1)(b).

Amendment 130

Proposal for a regulation

Article 20 — paragraph 4

Text proposed by the Commission

Amendment

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex V in order to adapt the formula referred to in paragraph 1 of this Article, and to amend the amount of the fixed penalty laid down in paragraph 2 of this Article, **taking into account the** developments in the cost of energy.

4. The Commission is empowered to adopt delegated acts in accordance with Article 26 to amend Annex V in order to adapt the formula referred to in paragraph 1 of this Article, and to amend the amount of the fixed penalty laid down in paragraph 2 of this Article, **as soon as** developments in the cost of energy **undermine the dissuasive effect of the existing penalties. Regarding the formula referred to in paragraph 1 of this Article, the resulting penalty must be larger than the amount and cost of the renewable and low-carbon fuel that the ships would have used if they had met the requirements of this Regulation.**

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Amendment 131

Proposal for a regulation

Article 21 — paragraph 1

Text proposed by the Commission

1. The penalties referred to in Article 20(1) and 20(2) shall be allocated to support common projects aimed at the rapid deployment of renewable and low carbon fuels in the maritime sector. Projects financed by the funds collected from the penalties shall stimulate the production of greater quantities of renewable and low carbon fuels for the maritime sector, facilitate the construction of appropriate bunkering facilities or electric connection ports in ports, and support the development, testing and deployment of the most innovative European technologies in the fleet to achieve significant emission reductions.

Amendment

1. The penalties referred to in Article 20(1) and 20(2) shall be allocated to support common projects aimed at the rapid deployment of renewable and low carbon fuels in the maritime sector. Projects financed by the funds collected from the penalties shall stimulate the production of greater quantities of renewable and low carbon fuels for the maritime sector, facilitate the construction of appropriate bunkering facilities or electric connection ports in ports, **or adapt the superstructure, if required,** and support the development, testing and deployment of the most innovative European technologies in the fleet to achieve significant emission reductions.

Amendment 132

Proposal for a regulation

Article 21 — paragraph 2

Text proposed by the Commission

2. The revenues generated from penalties referred to in paragraph 1 shall be allocated to the **Innovation** Fund referred to in Article **10a(8)** of Directive 2003/87/EC. These revenues shall constitute external assigned revenue in accordance with Article 21(5) of the Financial Regulation, and shall be implemented in accordance with the rules applicable to the **Innovation** Fund.

Amendment

2. The revenues generated from penalties referred to in paragraph 1 shall be allocated to the **Ocean** Fund referred to in Article **3gab** of Directive 2003/87/EC. **These revenues shall be earmarked for the maritime sector and contribute to its decarbonisation.** These revenues shall constitute external assigned revenue in accordance with Article 21(5) of the Financial Regulation, and shall be implemented in accordance with the rules applicable to the **Ocean** Fund.

Amendment 133

Proposal for a regulation

Article 24 — paragraph 1

Text proposed by the Commission

1. The companies shall be entitled to apply for a review of the calculations and measures addressed to them by the verifier under this Regulation, including the refusal to issue a FuelEU certificate of compliance pursuant to Article 19(1).

Amendment

1. The companies shall be entitled to apply for a review of the calculations and measures addressed to them by **the Member State's competent authority or** the verifier under this Regulation, including the refusal to issue a FuelEU certificate of compliance pursuant to Article 19(1).

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Amendment 134**Proposal for a regulation****Article 26 — paragraph 2***Text proposed by the Commission*

2. The power to adopt delegated acts referred to in Articles **4(6)**, 5(4), 9(3), 13(3), 20(4), and 21(3) shall be conferred on the Commission for an indeterminate period of time from [date of entry into force of this Regulation].

Amendment

2. The power to adopt delegated acts referred to in Articles **4(4)**, **4a(6)**, 5(4), 9(3), **9a(3)**, 13(3), 20(4), and 21(3) shall be conferred on the Commission for an indeterminate period of time from [date of entry into force of this Regulation].

Amendment 135**Proposal for a regulation****Article 26 — paragraph 3***Text proposed by the Commission*

3. The delegation of power referred to in Articles **4(7)**, 5(4), 9(3), 13(3), 20(4), and 21(3) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

Amendment

3. The delegation of power referred to in Articles **4(4)**, **4a(6)**, 5(4), 9(3), **9a(3)**, 13(3), 20(4), and 21(3) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.

Amendment 136**Proposal for a regulation****Article 26 — paragraph 6***Text proposed by the Commission*

6. A delegated act adopted pursuant to Articles **4(7)**, 5(4), 9(3), 13(3), 20(4), and 21(3) shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Amendment

6. A delegated act adopted pursuant to Articles **4(4)**, **4a(6)**, 5(4), 9(3), **9a(3)**, 13(3), 20(4), and 21(3) shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

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Amendment 137

Proposal for a regulation

Article 28 — paragraph - 1 (new)

Text proposed by the Commission

Amendment

-1. By 1 January 2024, the Commission shall produce a report on the social impact of this Regulation. That report shall include a projection of the impact of this Regulation on employment and training needs up to 2030 and up to 2050.

Amendment 138

Proposal for a regulation

Article 28 — paragraph 1 — introductory part

Text proposed by the Commission

Amendment

1. The Commission shall report to the European Parliament and the Council, **by 1 January 2030**, the results of an evaluation on the functioning of this Regulation and the evolution of the technologies and market for renewable and low-carbon fuels in maritime transport and its impact on the maritime sector in the Union. The Commission shall consider possible amendments to:

1. **By 1 January 2027, and every five years thereafter**, the Commission shall report to the European Parliament and the Council, the results of an evaluation on the functioning of this Regulation and the evolution of the technologies and market for renewable and low-carbon fuels in maritime transport and its impact on the maritime sector in the Union. **That report shall pay particular attention to the contribution of this Regulation to achieving the Union's overall and sector-specific climate targets, as defined under the European Climate Law, to the Union's Renewable energy and Energy efficiency targets. The report shall also evaluate the impact of this Regulation on the functioning of the single market, the maritime sector's competitiveness, transport freight rates and the magnitude of carbon and business leakage. The Commission shall at the same time also evaluate the impact of this Regulation on global GHG emissions reduction in the transport sector as well as on the development of global and regional trade flows.** The Commission shall consider possible amendments to:

Amendment 139

Proposal for a regulation

Article 28 — paragraph 1 — point a (new)

Text proposed by the Commission

Amendment

(aa) the scope of this Regulation in terms of:

- **decreasing the gross tonnage threshold referred to in Article 2(1), to 400 GT;**
- **expanding the share of energy used by ships in voyage to and from third countries referred to in Article 2 point (c);**

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Amendment 140**Proposal for a regulation****Article 28 — paragraph 1 — point a b (new)**

Text proposed by the Commission

Amendment

(ab) the default values provided in Annex II, based on the most accurate available scientific knowledge and evidence;

Amendment 141**Proposal for a regulation****Article 28 — paragraph 1 — point a c (new)**

Text proposed by the Commission

Amendment

(ac) the list of pollutants covered by this Regulation, in particular the possibility to include black carbon (BC) emissions;

Amendment 142**Proposal for a regulation****Article 28 — paragraph 1 — point b**

Text proposed by the Commission

Amendment

(b) the ship types to which Article 5(1) applies;

(b) ***an extension of*** the ship types to which Article 5(1) applies;

Amendment 143**Proposal for a regulation****Article 28 — paragraph 1 — point c a (new)**

Text proposed by the Commission

Amendment

(ca) the methodology specified in Annex I.

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Amendment 144**Proposal for a regulation****Article 28 — paragraph 1 a (new)**

Text proposed by the Commission

Amendment

1a. To ensure a goal-based and technology-neutral approach, this Regulation should be reviewed, and when needed, amended, as new greenhouse gas abatement technologies, such as on-board carbon capture, new renewable and low-carbon fuels and new propulsion methods, such as wind propulsion, become technically and economically mature. The Commission shall continuously evaluate the maturity of different greenhouse gas abatement technologies and present a first review in this regard to the European Parliament and the Council by 1 January 2027.

Amendment 145**Proposal for a regulation****Article 28 — paragraph 1 b (new)**

Text proposed by the Commission

Amendment

1b. The Commission shall continuously monitor the quantity of alternative fuels made available to shipping companies in the Union and shall report their findings to the European Parliament and the Council, by 1 January 2027, and every five years thereafter until 2050. If the supply of those fuels fails to meet the demand from shipping companies, required to fulfil the obligations set out in this Regulation, the Commission should propose measures to ensure that maritime fuel suppliers in the Union make available adequate volumes of alternative fuels to shipping companies calling at Union ports.

Amendment 146**Proposal for a regulation****Article 28 — paragraph 1 c (new)**

Text proposed by the Commission

Amendment

1c. The Commission shall propose amendments to this Regulation in the event that the International Maritime Organization adopts global greenhouse gas intensity limits on an equivalent level to this Regulation, in order to ensure a full alignment with the international agreement.

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Amendment 147**Proposal for a regulation****Article 28 — paragraph 1 d (new)**

Text proposed by the Commission

Amendment

1d. By 1 January 2027, and every fifth year until 2050, the Commission shall report to the European Parliament and the Council the results of a comprehensive evaluation of the aggregated macroeconomic impact of the Fit for 55 legislative package ^(1a). That report shall pay particular attention to the effects on the Union's competitiveness, job creation, transport freight rates, household purchasing power and the magnitude of carbon leakage.

^(1a) Communication from the Commission (COM(2021)0550), 14 July 2021

Amendment 148**Proposal for a regulation****Article 28 — paragraph 1 e (new)**

Text proposed by the Commission

Amendment

1e. The Commission shall consider possible amendments to this Regulation with the aim of achieving regulatory simplification. The Commission and the competent authorities shall continuously adapt to best-practice administrative procedures and take all measures to simplify the enforcement of this Regulation, thereby keeping the administrative burden on ship owners, operators, ports and verifiers to a minimum.

Amendment 149**Proposal for a regulation****Article 28 a (new)**

Text proposed by the Commission

*Amendment***Article 28a****Compensatory regulatory reduction**

In line with its communication on the 'one in, one out' principle, the Commission shall, by 1 January 2024, present proposals offsetting the regulatory burden introduced by this Regulation, through the amendment or repeal of provisions in other Union legislative acts that generate regulatory burdens in the maritime sector.

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Amendment 150

Proposal for a regulation

Annex I — equation 1

Text proposed by the Commission

GHG intensity index	WtT	TtW
GHG intensity index $\left[\frac{gCO_{2eq}}{MJ}\right]$ =	$\frac{\sum_i^{n\,fuel} M_{i,j} \times CO_{2eq,TtW,i} \times LCV_i + \sum_k^c E_k \times CO_{2eq,electricity,k}}{\sum_i^{n\,fuel} M_i \times LCV_i + \sum_k^c E_k}$	$+ \frac{\sum_i^{n\,fuel} \sum_i^{n\,engine} M_{i,j} \times \left[\left(1 - \frac{1}{100} C_{engine\,slip\,j}\right) \times (CO_{2eq,TtW,i}) + \left(\frac{1}{100} C_{engine\,slip\,j} \times CO_{2eq,TtW,slippage,j}\right)\right]}{\sum_i^{n\,fuel} M_i \times LCV_i + \sum_k^l E_k}$

Amendment

GHG intensity index	WtT	TtW
GHG intensity index $\left[\frac{gCO_{2eq}}{MJ}\right]$ =	$\frac{\sum_i^{n\,fuel} M_{i,j} \times CO_{2eq,TtW,i} \times LCV_i + \sum_k^c E_k \times CO_{2eq,electricity,k}}{\sum_i^{n\,fuel} M_i \times LCV_i \, [MULT_i] + \sum_k^c E_k}$	$+ \frac{\sum_i^{n\,fuel} \sum_i^{n\,engine} M_{i,j} \times \left[\left(1 - \frac{1}{100} C_{engine\,slip\,j}\right) \times (CO_{2eq,TtW,i}) + \left(\frac{1}{100} C_{engine\,slip\,j} \times CO_{2eq,TtW,slippage,j}\right)\right]}{\sum_i^{n\,fuel} M_i \times LCV_i \, [MULT_i] + \sum_k^l E_k}$

Amendment 151

Proposal for a regulation

Annex I — table 1 — row 6 a (new)

Text proposed by the Commission

Amendment

n fuel	Number of fuels delivered to the ship in the reference period
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Amendment 152

Proposal for a regulation

Annex I — table 1 — row 12 a (new)

Text proposed by the Commission

Amendment

MULTi	Multiplier applied to RFNBO fuel
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Amendment 153
Proposal for a regulation
Annex I — table 1 — row 19 a (new)

Text proposed by the Commission

Amendment	
Mi, j A	Adjusted mass of the specific fuel i oxidized in consumer j [gFuel] due to sailing in ice conditions in the case of a ship in ice class IC, IB, IA or IA Super or in an equivalent ice class ^(1a) and due to technical properties of a ship in ice class IA or IA Super or in an equivalent ice class. The adjusted mass Mi, j A is used in Equation (1) instead of the mass Mi, j when appropriate. ^(1a) For further information on correspondence between ice classes, see HELCOM Recommendation 25/7 at http://www.helcom.fi.

Amendment 154
Proposal for a regulation
Annex I — paragraph 4 — introductory part

Text proposed by the Commission	Amendment
In the case of fossil fuels, the default values in Annex II shall be used.	In the case of fossil fuels, the default values in Annex II shall be used unless actual values can be provided by means of certification or direct emissions measurements.

Amendment 155
Proposal for a regulation
Annex I — paragraph 4 — subparagraph 1 — introductory part

Text proposed by the Commission	Amendment
For the purpose of this regulation the term $\Sigma Ek \times CO_{2eq \text{ electricity}}$ in the numerator of Equation (1) shall be set to zero.	For the purpose of this regulation the term $\Sigma Ek \times CO_{2eq \text{ electricity}}$ in the numerator of Equation (1) shall be set to zero. The term MULT in the denominator of Equation (1) shall be set to the value of the RFNBO multiplier as referred to in Article 4a (2) in accordance with Article 9 (1 b). For all other fuels, the multiplier shall be set to one.

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Amendment 156

Proposal for a regulation

Annex I — paragraph 5

Text proposed by the Commission	Amendment
The [M _i] mass of fuel shall be determined using the amount reported in accordance with the framework of the reporting under Regulation (EU) 2015/757 for voyages falling within the scope of this Regulation based on the chosen monitoring methodology by the company.	The mass [M _i] of fuel shall be determined using the amount reported in accordance with the framework of the reporting under Regulation (EU) 2015/757 for voyages falling within the scope of this Regulation based on the chosen monitoring methodology by the company. The adjusted mass of fuel [M_{iA}] may be used instead of the mass of fuel [M_i] for a ship having the ice class IC, IB, IA or IA Super or an equivalent ice class. The adjusted mass [M_{iA}] is defined in Annex Va.

Amendment 157

Proposal for a regulation

Annex I — paragraph 12

Text proposed by the Commission	Amendment
In accordance with its compliance plan referred to in Article 6 and upon assessment by the verifier, other methods, such as direct CO _{2eq} measurement, laboratory testing , may be used if it enhances the overall accuracy of the calculation.	In accordance with its compliance plan referred to in Article 6 and upon assessment by the verifier, other methods, such as direct CO _{2eq} measurement may be used if it enhances the overall accuracy of the calculation.

Amendment 158

Proposal for a regulation

Annex I — table

Text proposed by the Commission		
Fuels Class	WtT	TtW
Fossil	Default values shall be used as provided in Table 1 of this Regulation	MRV Regulation CO2 carbon factors shall be used for fuels for which such factor is provided For all other emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of laboratory testing direct emissions measurements

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Fuels Class	WtT	TtW
Sustainable Renewable Fuels (Bio Liquids, Bio Gases, e-Fuels)	CO ₂ eq values as provided in RED II (without combustion) can be used for all fuels whose pathways are included in RED II, alternatively RED II approved certification scheme can be used	Emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of laboratory testing or direct emissions measurements.
Others (including electricity)	CO ₂ eq values as provided in RED II (without combustion) can be used for all fuels whose pathways are included in RED II, alternatively RED II approved certification scheme can be used	Emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of laboratory testing or direct emissions measurements.

Amendment

Fuels Class	WtT	TtW
Fossil	Default values shall be used as provided in Table 1 of this Regulation unless actual values can be provided by means of certification or direct emissions measurements	MRV Regulation CO ₂ carbon factors shall be used for fuels for which such factor is provided For all other emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of direct emissions measurements
Sustainable Renewable Fuels (Bio Liquids, Bio Gases, e-Fuels)	CO ₂ eq values as provided in RED II (without combustion) can be used for all fuels whose pathways are included in RED II, alternatively RED II approved certification scheme or direct emissions measurements can be used	Emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of direct emissions measurements.

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Fuels Class	WtT	TtW
Others (including electricity)	CO ₂ eq values as provided in RED II (without combustion) can be used for all fuels whose pathways are included in RED II, alternatively RED II approved certification scheme or direct emissions measurements can be used	Emissions factors, default values can be used as provided in Table 1 of this Regulation, alternatively Certified values by mean of direct emissions measurements.

Amendment 159**Proposal for a regulation****Annex II — paragraph 2***Text proposed by the Commission*

The emissions factors of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuels shall be determined according to the methodologies set out in Annex 5 part C of Directive (EU) 2018/2001.

Amendment

The emissions factors of biofuels, biogas, renewable fuels of non-biological origin and recycled carbon fuels shall be determined according to the methodologies set out in Annex 5 part C of Directive (EU) 2018/2001.

The emission factors for any kind of fuel can alternatively be determined based on actual certified values or values established by means of direct emissions measurements.

Amendment 160**Proposal for a regulation****Annex II — table***Text proposed by the Commission*

Bio-LNG Main products / wastes / Feedstock mix	0,05	Ref. to Directive (EU) 2018/2001	LNG Otto (dual fuel medium speed)	2,755 MEPC245 (66), Regulation (EU) 2015/757	0,00005	0,00018	3,1
			LNG Otto (dual fuel slow speed)				1,7
			LNG Diesel (dual fuels)				0,2
			LBSI				N/A

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Amendment

Bio-LNG Main products / wastes / Feedstock mix	0,05	Ref. to Directive (EU) 2018/2001	LNG Otto (dual fuel medium speed)	2,755 MEPC245 (66), Regulation (EU) 2015/757	0	0,00011	3,1
			LNG Otto (dual fuel slow speed)				1,7
			LNG Diesel (dual fuels)				0,2
			LBSI				N/A

Amendment 161

Proposal for a regulation

Annex II — paragraph 8

Text proposed by the Commission

Column 4 contains the CO_{2eq} emissions values in [gCO_{2eq}/MJ]. For fossils fuels **only** the default values in the table shall be used. For all other fuels, (except were expressly indicated), values shall be calculated by using the methodology or the default values as per in Directive (EU) 2018/2001 deducted of the combustion emissions considering full oxidation of the fuel⁽³³⁾.

⁽³³⁾ Reference is made to Directive (EU) 2018/2001, Annex V.C.1.(a) to the term e_u 'emissions from the fuel in use'

Amendment

Column 4 contains the CO_{2eq} emissions values in [gCO_{2eq}/MJ]. For fossils fuels the default values in the table shall be used **unless actual values can be provided by means of certification or direct emissions measurements**. For all other fuels, (except were expressly indicated), values shall be calculated by using the methodology or the default values as per in Directive (EU) 2018/2001 deducted of the combustion emissions considering full oxidation of the fuel⁽³³⁾.

⁽³³⁾ Reference is made to Directive (EU) 2018/2001, Annex V.C.1.(a) to the term e_u 'emissions from the fuel in use'

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Amendment 162
Proposal for a regulation
Annex III — table — row 4 a (new)

Text proposed by the Commission

Amendment	
Any other zero-emission power source	Any technology that achieves emissions reductions equivalent to or more significant than would be achieved by using on-shore power supply.

Amendment 163
Proposal for a regulation
Annex V

Text proposed by the Commission

ANNEX V

FORMULAS FOR CALCULATING THE COMPLIANCE BALANCE AND PENALTY LAID DOWN IN ARTICLE 20(1)

Formula for calculating the ship’s compliance balance

For the purpose of calculating the compliance balance of a ship the following formula shall apply:

Compliance balance $[gCO_{2eq}/MJ]$ =	$(GHGIE_{target} - GHGIE_{actual}) \times \left[\sum_i^n fuel_i \times LCV_i + \sum_i^l E_i \right]$
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Where:

gCO_{2eq}	Grams of CO ₂ equivalent
$GHGIE_{target}$	Greenhouse gas intensity limit of the energy used on-board a ship according to Article 4(2) of this Regulation
$GHGIE_{actual}$	Yearly average of the greenhouse gas intensity of the energy used on-board a ship calculated for the relevant reporting period

Formula for calculating the penalty laid down in Article 20(1)

The amount of the penalty laid down in Article 20(1) shall be calculated as follows:

Penalty =	$(\text{Compliance balance} / GHGIE_{actual}) \times \text{conversion factor from MJ to tonnes of VLSFO}$ $(41,0 \text{ MJ} / \text{kg}) \times \text{EUR } 2\,400$
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Amendment

ANNEX V

FORMULAS FOR CALCULATING THE COMPLIANCE BALANCE AND **REMEDIAL** PENALTY LAID DOWN IN ARTICLE 20(1)

A. Formula for calculating the ship's compliance balance

a) Compliance Balance with respect to greenhouse gas intensity of the ship, in respect to Article 4.2

For the purpose of calculating the compliance balance of a ship the following formula shall apply:

Compliance balance $[gCO_{2eq}/MJ]$ =	$(GHGIE_{target} - GHGIE_{actual}) \times \left[\sum_i^{n_{fuel}} M_i \times LCV_i + \sum_i^1 E_i \right]$
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Where:

gCO_{2eq}	Grams of CO ₂ equivalent
$GHGIE_{target}$	Greenhouse gas intensity limit of the energy used on-board a ship according to Article 4(2) of this Regulation
$GHGIE_{actual}$	Yearly average of the greenhouse gas intensity of the energy used on-board a ship calculated for the relevant reporting period

b) Compliance Balance with respect to RFNBO quota, in respect to Article 4a (3)

$CB_{RFNBO} [\% RFNBO] =$	$(\% RFNBO_{quota} - \% RFNBO_{actual})$
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Where:

CB_{RFNBO}	Compliance Balance with respect to $RFNBO_{quota}$, in respect to Article 4a(3)
$\% RFNBO_{quota}$	$RFNBO_{quota}$ of the yearly average energy used on-board a ship according to Article 4a(3) of this Regulation
$\% RFNBO_{actual}$	Percentage of the yearly average energy used on-board reported by a ship that is actually met with RFNBOs compliant with Article 9(1)(b)

B. Formula for calculating the penalty laid down in Article 20(1)

a) Remedial Penalty with respect to compliance balance for greenhouse gas intensity of the ship, in respect to Article 4.2

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ANNEX V

FORMULAS FOR CALCULATING THE COMPLIANCE BALANCE AND **REMEDIAL** PENALTY LAID DOWN IN ARTICLE 20(1)

The amount of the penalty laid down in Article 20(1) shall be calculated as follows:

Penalty =	$\left(\frac{\text{Compliance balance}}{\text{GHGIE}_{\text{actual}}} \right) \times \text{conversion factor from MJ to tonnes of VLSFO} \\ (41,0 \text{ MJ} / \text{kg}) \times \text{EUR } 2\,400$
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b) Remedial Penalty with respect to RFNBO quota, with respect to Article 4a(3)

The amount of the remedial penalty laid down in Article 20(1a) shall be calculated as follows:

Remedial Penalty (RFNBO) =	$\text{abs}(\text{CB_RFNBO}) \times \text{Pd} \times 3$
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Where:

Remedial Penalty	in EUR
$\text{abs}(\text{CB_RFNBO})$	Is the absolute value of the compliance balance for RFNBO
Pd	Price difference between RFNBOs and fossil fuel compatible with ship installation

Amendment 164

Proposal for a regulation

Annex V a (new)

Text proposed by the Commission

Amendment

ANNEX Va

CALCULATION OF ADJUSTED MASS OF FUEL AND OF ADDITIONAL ENERGY

First, this Annex describes how to calculate the adjusted mass of fuel using the additional energy due to technical characteristics of a ship in ice class IA or IA Super or in an equivalent ice class ^(1a) and the additional energy used by a ship in ice class IC, IB, IA or IA Super or in an equivalent ice class due to sailing in ice conditions. Second, it describes how to calculate the additional energies.

Adjusted mass [Mj A]

The [Mi A] adjusted mass of fuel shall be calculated on the basis of the additional energy used for sailing in ice conditions and the additional energy used due to technical properties of a ship in ice class IA or IA Super or in an equivalent ice class. The company may choose to which fuel i the additional energy is allocated. The selected fuel i must be one of the fuels that the ship has consumed during the reporting period. The amount of the energy corresponding to the consumed mass of the fuel i may be lower than the amount of the additional energy.

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The $[M_i A]$ adjusted mass of fuel i shall be calculated as follows

$$M_{iA} = M_{i \text{ total}} - M_{i \text{ additional due to ice class}} - M_{i \text{ additional due to ice conditions}}, \quad (\text{Ax.1})$$

where $M_i \text{ total}$ denotes the total mass of fuel i , $M_i \text{ additional due to ice class}$ the mass of fuel due to additional energy consumption of a ship in ice class IA or IA Super or in an equivalent ice class and $M_i \text{ additional due to ice conditions}$ the mass of fuel due to additional energy consumption due to sailing in ice conditions.

The mass of fuel i representing the additional energy consumption due to technical characteristics of a ship in ice class IA or IA Super or in an equivalent ice class is calculated with

$$M_{i \text{ additional due to ice class}} = \frac{E_{\text{additional due to ice class}}}{LCV_i}, \quad (\text{Ax.2})$$

where $E_{\text{additional due to ice class}}$ is the additional energy consumption due to the technical characteristics of a ship in ice class IA or IA Super or in an equivalent ice class and LCV_i is the lower caloric value of the fuel i .

Similarly, the mass of fuel due to additional energy consumption due to sailing in ice conditions is calculated using

$$M_{i \text{ additional due to ice conditions}} = \frac{E_{\text{additional due to ice conditions}}}{LCV_i}, \quad (\text{Ax.3})$$

where $E_{\text{additional due to ice conditions}}$ is the additional energy consumption due to sailing in ice conditions.

Additional energy due to ice class and due to sailing in ice conditions

The additional energy consumption due to the technical characteristics of a ship in ice class IA or IA Super or in an equivalent ice class shall be calculated as follows

$$E_{\text{additional due to ice class}} = 0,05 \times (E_{\text{voyages, total}} - E_{\text{additional due to ice conditions}}), \quad (\text{Ax.4})$$

where $E_{\text{voyages, total}}$ denotes the total energy consumed for all voyages and $E_{\text{additional due to ice conditions}}$ additional energy consumption due to sailing in ice conditions.

The total energy consumed for all voyages shall be calculated using

$$E_{\text{voyages, total}} = \sum_{i=1}^n M_{i, \text{voyages, total}} \times LCV_i + E_{\text{elect., voyages, total}}, \quad (\text{Ax.5})$$

where $M_{i, \text{voyages, total}}$ denotes the mass of fuel i consumed for all voyages within the scope of this Regulation, LCV_i the lower caloric value of fuel i and $E_{\text{elect., voyages, total}}$ the amount of the electricity delivered to the ship consumed for all voyages.

The mass of fuel i $M_{i, \text{voyages, total}}$ consumed for all voyages within the scope of this Regulation is calculated with

$$M_{i, \text{voyages, total}} = M_{i, \text{voyages between MS}} + 0,5 \times (M_{i, \text{voyages from MS}} + M_{i, \text{voyages to MS}}), \quad (\text{Ax.6})$$

where $M_{i, \text{voyages between MS}}$ denotes the aggregated mass of fuel consumed during all voyages between ports under a Member State's jurisdiction, $M_{i, \text{voyages from MS}}$ the aggregated mass of fuel consumed during all voyages which departed from ports under a Member State's jurisdiction and $M_{i, \text{voyages to MS}}$ the aggregated mass of fuel consumed during voyages to ports under a Member State's jurisdiction. The consumed amount of the electricity delivered to the ship $E_{\text{elect., voyages total}}$ can be calculated in the same way.

The additional energy consumption due to sailing in ice conditions e calculated as follows

$$E_{\text{additional due to ice conditions}} = E_{\text{voyages, total}} - E_{\text{voyages, open water}} - E_{\text{voyages, ice conditions, adjusted}}, \quad (\text{Ax.7})$$

where $E_{\text{voyages, open water}}$ denotes the energy consumed on voyages in open water and $E_{\text{voyages, ice conditions, adjusted}}$ the adjusted energy consumed in ice conditions.

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The energy consumed for voyages that include sailing in open water only e calculated as follows

$$E_{\text{voyages, open water}} = E_{\text{voyages, total}} - E_{\text{voyages, ice conditions}}, \quad (\text{Ax.8})$$

where $E_{\text{voyages, ice conditions}}$ denotes energy consumed for sailing in ice conditions, which is calculated as follows

$$E_{\text{voyages, ice conditions}} = \sum_{i=1}^{n \text{ fuel}} M_{i, \text{voyages, ice conditions}} \times LCV_i + E_{\text{elect., ice conditions}}, \quad (\text{Ax.9})$$

where $M_{i, \text{voyages, ice conditions}}$ denotes the mass of fuel i consumed for sailing in ice conditions and $E_{\text{elect., voyages, total}}$ denotes the amount of the electricity delivered to the ship consumed when sailing in ice conditions.

The mass of fuel i consumed for sailing in ice conditions is defined as follows

$$M_{i, \text{voyages, ice cond.}} = M_{i, \text{voyages between MS, ice cond.}} + 0,5 \times (M_{i, \text{voyages from MS, ice cond.}} + M_{i, \text{voyages to MS, ice cond.}}), \quad (\text{Ax.10})$$

where $M_{i, \text{voyages between MS, ice cond.}}$ denotes the aggregated mass of fuel consumed by an ice class ship when sailing in ice conditions between ports under a Member State's jurisdiction, $M_{i, \text{voyages from MS}}$ the aggregated mass of fuel consumed by an ice class ship when sailing in ice conditions during all voyages which departed from ports under a Member State's jurisdiction and $M_{i, \text{voyages to MS}}$ the aggregated mass of fuel consumed by an ice class ship when sailing in ice conditions during voyages to ports under a Member State's jurisdiction. The consumed amount of the electricity delivered to the ship $E_{\text{ice conditions}}$ can be calculated in the same way.

The adjusted energy consumed in ice conditions shall be calculated using

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$$E_{\text{voyages, ice conditions, adjusted}} = D_{\text{ice conditions}} \times \left(\frac{E}{D} \right)_{\text{open water}}, \quad (\text{Ax.11})$$

with the distance $\left(\frac{E}{D} \right)_{\text{open water}}$ when sailing in ice conditions $D_{\text{ice conditions}}$ and energy consumption per distance travelled in open water.

The distance travelled when sailing in ice conditions $D_{\text{ice conditions}}$ shall be calculated as follows

$$D_{\text{ice cond.}} = D_{\text{voyages between MS, ice cond.}} + 0,5 \times (D_{\text{voyages from MS, ice cond.}} + D_{\text{voyages to MS, ice cond.}}), \quad (\text{Ax.12})$$

where $D_{\text{voyages between MS, ice cond.}}$ denotes the aggregated distance travelled when sailing in ice conditions between ports under a Member State's jurisdiction, $D_{\text{voyages from MS}}$ the aggregated distance when sailing in ice conditions during all voyages which departed from ports under a Member State's jurisdiction and $D_{\text{voyages to MS}}$ the aggregated distance when sailing in ice conditions during voyages to ports under a Member State's jurisdiction.

The latter is defined as follows:

$$\left(\frac{E}{D} \right)_{\text{open water}} = \frac{E_{\text{voyages, total}} - E_{\text{voyages, ice conditions}}}{D_{\text{total}} - D_{\text{ice conditions}}}, \quad (\text{Ax.13})$$

where $E_{\text{voyages, ice conditions}}$ denotes the energy consumption when sailing in ice conditions and D_{total} the total annual distance travelled.

The total annual distance travelled shall be calculated as follows

$$D_{\text{total}} = D_{\text{voyages between MS}} + 0,5 \times (D_{\text{voyages from MS}} + D_{\text{voyages to MS}}), \quad (\text{Ax.14})$$

where $D_{\text{voyages between MS}}$ denotes the aggregated distance travelled between ports under a Member State's jurisdiction, $D_{\text{voyages from MS}}$ the aggregated distance travelled during all voyages which departed from ports under a Member State's jurisdiction and $D_{\text{voyages to MS}}$ the aggregated distance travelled during voyages to ports under a Member State's jurisdiction.

(^{1a}) For further information on correspondence between ice classes, see HELCOM Recommendation 25/7 at <http://www.helcom.fi>.