

**EXPLANATORY FICHE NO XX**

**Implementing act identifying energy efficient technologies and specifying the methodological elements for measuring reductions in CO<sub>2</sub> emissions or fuel consumption of fishing vessel engines.**

**VERSION 1 – 24.02.2021**

**RELEVANT PROVISIONS IN THE DRAFT LEGISLATION**

<b>Regulation</b>	<b>Provisions</b>
<b>EMFAF</b>	Article 16a on Replacement or modernisation of a main or ancillary engine

*This document is based on the text of the draft EMFAF consolidated agreement. It is a provisional text, without prejudice to on-going discussions. This fiche is intended to guide Member States, explaining and elaborating the text of the proposal.*

## **OBJECTIVE OF THIS FICHE**

Article 16a of the provisional agreement on the EMFAF Regulation (see Annex) sets out the conditions for EMFAF support for the replacement or modernisation of a main or ancillary engine of a fishing vessel up to 24 metres in overall length.

The support referred to in Article 16a shall contribute to the specific objective of increasing energy efficiency and reducing CO<sub>2</sub> emissions through the replacement or modernisation of engines of fishing vessels, as referred to in point (b) of Article 14(1).

Article 16a paragraph 5 develops the overall methodological framework to measure the required 20% reduction in CO<sub>2</sub> emissions and empowers the Commission to specify certain elements of this methodological framework by means of an implementing act.

Article 16a paragraph 5 points (a) and (b) of the first subparagraph refer to the use of information certified by the manufacturer as part of a type approval or product certificate to determine the required 20% reduction of CO<sub>2</sub> emissions of the new or modernised engine compared to those of the current engine.

In case such comparison is not possible due to the absence of information certified by the manufacturer as part of a type approval or product certificate for the new and/or the current engine, the second subparagraph of Article 16a paragraph 5 identifies alternative cases in which the required 20% reduction of CO<sub>2</sub> emissions of the new or modernised engine compared to those of the current engine is considered to be met:

- (a) the new engine uses an energy efficient technology and the age difference between the new engine and the engine being replaced is at least 7 years;*
- (b) the new engine uses a type of fuel or a propulsion system which is considered to emit less carbon dioxide than the engine being replaced;*
- (c) the Member State measures that the new engine emits 20 % less carbon dioxide or uses 20 % less fuel than the engine being replaced under the normal fishing effort of the vessel concerned.*

Article 16a paragraph 5 last subparagraph stipulates the adoption by the Commission of implementing acts to:

1. identify the energy efficient technologies referred to in point (a) of the second subparagraph of paragraph 5 and
2. further specify the methodological elements for the implementation of point (c) of the second subparagraph of paragraph 5.

The purpose of this fiche is to have a first discussion on the main elements for the implementing act for the period 2021-2027 regarding the above mentioned aspects.

## **1. Energy efficient technologies used by the new engine**

Energy efficient technologies used by the new engine are considered to be those technologies that lead to less CO<sub>2</sub> emission and a higher energy efficiency than the traditional fossil fuel (diesel) internal combustion engines. These could in particular be:

- Liquefied natural gas (LNG): the high hydrogen-carbon ratio of methane makes the combustion efficient with reduced SO<sub>x</sub> and NO<sub>x</sub> emissions as well as particle and CO<sub>2</sub> emissions
- Liquefied biogas (LBG), combustion of liquefied bio-methane exhibits a neutral recirculation loop for CO<sub>2</sub> and has the potential to cut life-cycle GHG emissions significantly
- Hydrogen, the hydrogen fuelled engine is found to be lower in thermal efficiency and fuel consumption
- Fuel cells, Electricity: emission free
- Hybrid (Electricity + combustion), strongly reduced emissions, depending on the part taken by the electricity in the propulsion.
- Biofuel, very low sulphur levels and low CO<sub>2</sub> emissions

## **2. Methodological elements for the measurement of the reduction in CO<sub>2</sub> emissions or in fuel consumption of the new engine compared to the engine being replaced**

In line with Article 16a paragraph 3, Member States shall ensure that all replaced or modernised engines are subject to a physical verification. This physical verification will allow the Member State to measure that the new engine indeed emits 20 % less carbon dioxide or uses 20 % less fuel than the engine being replaced under the normal fishing effort of the vessel concerned.

For the purpose of this measurement it is necessary to define what should be considered the “normal fishing effort of the vessel concerned”. In determining the normal fishing effort, account needs to be taken of the great variety of fishing vessels, their fishing techniques, travel distances and load factors which are also varying over time. All of these factors have an impact on the CO<sub>2</sub> emissions and fuel consumption of the vessel. Therefore, to develop a representative measurement of the CO<sub>2</sub> emissions or fuel consumption of the normal fishing effort of the vessel it is proposed that Member States base themselves on the average of ten typical fishing trips of the vessel concerned by the measure.

The implementing act would as a consequence stipulate that the Member State shall define the normal fishing effort on the basis of the characteristics and fishing pattern of the fishing vessel using the average of ten typical fishing trips carried out during the three calendar years preceding the application for support, taking due account of the fishing techniques used and the time spent at sea.

## **QUESTIONS**

- Do you have general questions/observations regarding the suggested approach to this new implementing act?
- Do you have questions/observations regarding the energy efficient technologies identified (item 1)?
- Do you have questions/observations regarding the methodological elements for the measurement of the reduction in CO<sub>2</sub> emissions or in fuel consumption of the new engine compared to the engine being replaced (item 2)?

*Article 16a*  
*Replacement or modernisation of a main or ancillary engine*

1. *By way of derogation from Article 13(1), the EMFAF may support the replacement or modernisation of a main or ancillary engine of a fishing vessel up to 24 metres in overall length.*

*The support referred to in the first subparagraph shall contribute to the specific objective referred to in point (b) of Article 14(1).*

2. *Support under this Article may be granted only under the following conditions:*
  - (a) *the vessel belongs to a fleet segment for which the latest report on fishing capacity, referred to in Article 22(2) of Regulation (EU) No 1380/2013, has shown a balance with the fishing opportunities available to that segment;*
  - (b) *the vessel has been registered in the Union fleet register for at least 5 calendar years preceding the year of submission of the application for support;*
  - (c) *for small-scale coastal fishing vessels, the new or modernised engine does not have more power in kW than that of the current engine; and*
  - (d) *for other vessels up to 24 metres in overall length, the new or modernised engine does not have more power in kW than that of the current engine and shall emit at least 20% less CO<sub>2</sub> compared to the current engine.*
3. *Member States shall ensure that all replaced or modernised engines are subject to a physical verification.*
4. *The fishing capacity withdrawn due to the replacement or modernisation of a main or ancillary engine shall not be replaced.*
5. *The reduction of carbon dioxide emissions required under point (d) of paragraph 2 shall be considered to be met in any of the following cases:*
  - (a) *where relevant information certified by the manufacturer of the engines concerned as part of a type approval or product certificate indicates that the new engine emits 20 % less carbon dioxide than the engine being replaced; or*
  - (b) *where relevant information certified by the manufacturer of the engines concerned as part of a type approval or product certificate indicates that the new engine uses 20 % less fuel than the engine being replaced.*

*Where the relevant information certified by the manufacturer of the engines concerned as part of a type approval or product certificate for one or both of the engines do not permit a comparison of the carbon dioxide emissions or fuel consumption, the reduction of carbon dioxide emissions required under point (d) of paragraph 2 shall be considered to be met in any of the following cases:*

- (d) *the new engine uses an energy efficient technology and the age difference between the new engine and the engine being replaced is at least 7 years;*
- (e) *the new engine uses a type of fuel or a propulsion system which is considered to emit less carbon dioxide than the engine being replaced;*
- (f) *the Member State measures that the new engine emits 20 % less carbon dioxide or uses 20 % less fuel than the engine being replaced under the normal fishing effort of the vessel concerned.*

*The Commission shall adopt implementing acts to identify the energy efficient technologies referred to in point (a) of the second subparagraph and to further specify the methodological elements for the implementation of point (c) of the second subparagraph. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 53(2).*