Centrum für Europäische Politik

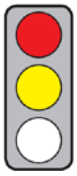
MONITORING OF CO_2 EMISSIONS FROM MARITIME TRANSPORT

cep**PolicyBrief** No. 2013-49

KEY ISSUES

Objective of the Regulation: The Commission wants to bring in a system to monitor, report and verify ("MRV" System) CO_2 emissions from maritime transport that will serve as a basis for future CO_2 reduction provisions.

Parties affected: Maritime transport companies, "independent verifiers", port operators.



Pro: An MRV system for CO_2 emissions from maritime transport is necessary insofar as these emissions are to be reduced by way of further measures.

Contra: (1) The cost reductions hoped for by the Commission are open to question because companies are already trying, of their own accord, to reduce costs.

(2) The inclusion of CO_2 emissions, arising outside the sovereign territory of the EU, stretches international law's territoriality principle to the limit.

CONTENT

Title

Proposal COM(2013) 480 of 28 June 2013 for a **Regulation** of the European Parliament and of the Council on the **monitoring, reporting and verification of carbon dioxide emissions from maritime transport** and amending Regulation (EU) No 525/2013

Brief Summary

In the absence of any indication to the contrary, references relate to the Proposal for a Regulation COM(2013) 480.

- **Background**
  - The EU has undertaken to reduce its greenhouse gas emissions (GHG emissions) by at least 20% by 2020 as compared with 1990 levels (see cep**Dossier** EU Climate Policy, page 8).
  - GHG emissions from maritime transport are made up of 98% CO_2.
  - International maritime transport is the only transport mode whose CO_2 emissions have not yet been subject to EU reduction requirements.
  - Although ship operators can save costs with CO_2 reduction measures, due to the lower fuel consumption, "market barriers" exist (page 2) such as
    - lack of information on the fuel efficiency of ships,
    - lack of investment funds for increasing fuel efficiency,
    - the "split-incentive problem" whereby ship owners do not gain from investment in fuel efficiency because ship operators bear the fuel costs.
  - The Commission wants to reduce the CO_2 emissions from maritime transport by way of a staged approach using three measures which build on one another [page 3; Communication COM(2013) 479, page 5]:
    - the introduction of an EU system for monitoring, reporting and verification of the CO_2 emissions from maritime transport ("MRV system"; Art. 1),
    - the definition of a CO_2 reduction target for maritime transport,
    - the introduction of a "market-based measure" – e.g. a levy on CO_2 emissions or a maritime emission trading scheme [see SWD(2013) 237, page 25 et seq.] – or an "efficiency standard" under which the reduction target will be achieved.
  - This Regulation governs the MRV system.
  - In parallel to the EU activities, global measures on CO_2 reduction are under discussion by the International Maritime Organization (IMO).
- **Objectives of the MRV system**
  - The objective of the MRV system is to "promote the reduction of CO_2 emissions from maritime transport in a cost effective manner" (Art. 1).
  - According to the Commission, deploying the MRV system
    - can overcome market barriers such as a lack of information on the fuel efficiency of ships,
    - save up to € 1.2 billion and reduce CO_2 emissions by up to 2% by 2030.
  - The EU's MRV system will (Recital 24)
    - serve as a model for a future global MRV system,
    - be capable of being aligned with a future global MRV system.

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- **Area of Application**
  - The MRV system applies to all ships
    - with a gross tonnage (GT, Art. 3 (d)) of over 5,000 (Art. 2 (1)),
    - "regardless of their flag" or whether they are registered in a national ships' register (Recital 8),
    - with the exception of, inter alia, warships, fishing vessels and non-motorised ships (Art. 2).
  - The MRV system applies to
    - CO_2 emissions (Art. 2 (1)) and
    - "other climate-relevant information" on the fuel consumption, transport work and energy efficiency of ships which allows for analysing "emission trends" and assessing ships' performances (Art. 3 (g)).
  - The MRV system applies to all this data (Art. 2 (1))
    - during a stay in an EU port,
    - for voyages between EU ports,
    - for voyages from the last port of call outside the EU to an EU port,
    - for voyages from an EU port to the next port of call outside the EU.

- **Monitoring**
  - By 31 August 2017, "companies" - the owner or any other person who has assumed responsibility for the ship (Art. 3 (c)) - must submit a "monitoring plan" indicating how it will monitor and report CO_2 emissions and "other climate relevant information" for each of their ships (Art. 6 (1)).
  - The monitoring plan contains descriptions, inter alia, of
    - all CO_2 emission sources on board (Art. 5 (3) (c)),
    - the monitoring procedures used to ensure the completeness of the list of voyages and to monitor fuel consumption (Art. 6 (3) (e) and (f)) and
    - the procedures used for determining the distance of each voyage, the cargo, the number of passengers and the time spent at sea between the port of departure and the port of arrival (Art. 6 (3) (h)).
  - From 2018, every company must monitor the CO_2 emissions and "other climate-relevant information" for each ship in accordance with the monitoring plan (Art. 8)
    - both on a per voyage basis (Art. 9, Annex II, Part A)
    - and on an annual basis (Art. 10, Annex II, Part B).
  - For this purpose, it has to calculate fuel consumption using one of the following methods (Annex I, Part B):
    - Bunker Fuel Delivery Note for bunker fuel and periodic stocktakes of fuel tanks, or
    - bunker fuel tank monitoring on board, or
    - flow meters for applicable combustion processes, or
    - direct emission measurements.
  - The CO_2 emissions must be calculated on the basis of fuel consumption and a standard "emission factor" for each fuel type (Annex I, Part A; Commission Regulation No. 601(2012, Annex VI).

- **Reporting**
  - From 2019, companies must submit to the Commission, and to the authorities of the flag States concerned, an emission report for each ship, by 30 April each year.
  - This contains - only on an annual basis, not on the basis of individual voyages - (Art. 11 (3) (c) in conjunction with Art. 10)
    - the total CO_2 emitted,
    - the CO_2 emitted during stays in EU ports and on all voyages between, from or to EU ports
    - the total distance travelled,time spent at sea and total transport work.

- **Verification**
  - A "verifier" (Art. 16 (1))
    - assesses the monitoring plan (Art. 13 (1)) and the emission report (Art. 13 (2) to (4)),
    - confirms that the emission report complies with the Regulation (Art. 17 (1)), by way of a "document of compliance" which from 30 June 2019 will have to be carried on board ship (Art. 18).
  - The verifier must be independent of the company and accredited by a national accreditation body (Art. 16 (1); Regulation No. 765/2008, Art. 2 No. 10 and 11).

- **Publication of results and sanctions**
  - The Commission publishes (Art. 21 (1)):
    - information based on the emission reports (Art. 21 (2), e.g. the average fuel consumption per transport work of a ship,
    - "information on the company's compliance with monitoring and reporting requirements"(Art. 21 (1)).

– The Commission regularly informs the IMO and other bodies, such as the UN Framework Convention on Climate Change (UNFCCC), about the implementation of the MRV system (Art. 22 (1)).
– Member States
  - must impose sanctions for breaches of the monitoring and reporting obligations (Art. 8 to 10) which are "effective, proportionate and dissuasive" (Art. 20 (1)) and
  - can, by way of an "expulsion order", prohibit a ship from entering all EU ports insofar as a company has breached the monitoring and reporting obligations in more than one reporting period (Art. 20 (3)).

Main Changes to the Status Quo

There has not previously been any EU legislation on the monitoring, reporting and verifying of CO_2 emissions from maritime transport.

Statement on Subsidiarity by the Commission

According to the Commission, action at EU level is necessary because both climate change and maritime transport are of a "transnational nature" (page 8).

Policy Context

The Commission, in its Transport White Paper [COM(2011) 144; see cep**PolicyBrief**], calls for EU CO_2 emissions from maritime transport to be reduced by 40% – and 50% if possible – by 2050, as compared with 2005 levels. Under the Climate and Energy Package (Decision No. 406/2009/EC, Recital 2; Directive 2009/29/EC, Recital 3, see cep**Dossier** EU Climate Policy, page 10 et seq.) the Commission was to propose EU regulations on CO_2 reduction for maritime transport if international reduction obligations were not agreed by the end of 2011 within the framework of the IMO or the UNFCCC. In 2011, in order to reduce fuel consumption and thus CO_2 emissions, the IMO introduced minimum efficiency standards for new ships (Energy Efficiency Design Index - EEDI) and an ship energy efficiency management plan for all ships (SEEMP). According to the Commission, however, neither measure ensures sufficient reduction of CO_2 [Communication COM(2013) 479, page 4].

Legislative Procedure

28 June 2013	Adoption by the Commission
Open	Adoption by the European Parliament and the Council, publication in the Official Journal of the European Union, entry into force

Options for Influencing the Political Process

Directorates General:	DG Climate (leading)
Committees of the European Parliament:	Environment, Public Health and Food Safety (leading), Rapporteur Theodoros Skylakakis (ALDE); Industry, Research and Energy; Transport and Tourism
Federal Ministries:	Environment, Nature Protection and Reactor Safety (leading)
Committees of the German Bundestag:	European Union Affairs (leading); Environment, Nature Protection and Reactor Safety; Transport
Decision mode in the Council:	Qualified majority (rejection with 93 of 352 votes; Germany: 29 votes)

Formalities

Legal competence:	Art. 192 TFEU (Environment)
Form of legislative competence:	Shared competence (Art. 4 (2) TFEU)
Legislative procedure:	Art. 294 TFEU (ordinary legislative procedure)

ASSESSMENT

Economic Impact Assessment

Ordoliberal Assessment

An MRV system for CO_2 emissions from maritime transport is more accurate than the methods previously used which carried out estimates based on average values for types of ship or on fuel sales. A measurement as precise as possible **is necessary if**, as the Commission intends, **the next step is to be to reduce these emissions.**

The assessment of the planned MRV system – particularly of the scope of the data to be recorded – depends on which instrument is to be used to reduce emissions. A "market-based measure" – a levy on CO_2 emissions or an emission trading scheme – only requires reliable details of the CO_2 emissions. Efficiency standards, on the other hand, require further information, such as details of the transport work. By collecting "other climate-relevant

information", in addition to the CO_2 emissions, the Commission obviously wants to keep the choice of instrument open.
A "market-based" solution would, however, be preferable because this would allow the companies greater freedom of choice in deciding how to achieve CO_2 reductions as cost effectively as possible. In addition, the collection of data could then be confined to the measurement of CO_2 emissions.
The Commission's idea of publishing information, such as the average fuel consumption of ships per transport work, as efficiency indicators in order to increase market transparency, is misguided. The indicators are difficult to compare in the individual case due to the fact that fuel consumption, even for the same transport work and similar types of ship, is not comparable on different routes. This is because it is dependent on various factors, e.g. the part of the world in which the ship was mainly operating during the reporting period: in harsh climates, significantly more fuel is required than in more temperate climates. This information is not available to potential shipping customers. Thus, instead of the desired market transparency, distortion of competition may even be created. There should therefore be no obligation to collect and publish this information.

The cost reductions which the Commission hopes to achieve by way of the MRV system – as a consequence of overcoming "market barriers" by way of increased information – **are open to question because the companies**, which operate on a global playing field, **are already trying, of their own accord, to reduce costs in order to remain competitive.**

Since the major part of maritime transport takes place in international waters, the EU should, in the medium term, be working towards the introduction of the MRV system at international level by the IMO. Regular reporting on the MRV system to the IMO is therefore appropriate as the experience gained with the system may help its introduction on a global level.

Impact on Efficiency and Individual Freedom of Choice

Since international maritime transport is the only mode of transport in the EU that has not yet been subject to any CO_2 reduction obligations, it is appropriate to include it into CO_2 legislation. In maritime transport, reduction may prove cheaper than in the sectors already under regulation. The price signal given by a market-based instrument would ensure that this potential is fully exploited. The EU-wide CO_2 reduction target could thus be achieved more cost effectively.

Impact on Growth and Employment

Negligible.

Impact on Europe as a Business Location

The MRV system will not be detrimental to European ports as business locations because avoiding the requirements – by stopping at ports outside the EU – would give rise to more costs than the monitoring and reporting duties. Companies would have to reorganise their transport chains.

Legal Assessment

Legislative competence

The EU is empowered to issue environmental measures for the protection of the climate (Art. 192 TFEU). However, states can only regulate situations that have a "genuine link" to their sovereign territory. This is based on international law's territoriality principle which is also binding upon the EU. **The inclusion in the MRV system of CO_2 emissions that arise outside the EU** is thus problematic. It **stretches international law's territoriality principle to the limit.** However, in the similar situation where GHG emissions from air transport were included in the ETS, the ECJ ruled in favour of a broad interpretation of the territoriality principle (cf. ECJ, Case C-366/10 of 21 December 2011).

Subsidiarity

Unproblematic.

Conclusion

An MRV system for CO_2 emissions from maritime transport is necessary insofar as these emissions are to be reduced by way of further measures. The cost reductions hoped for by the Commission are open to question because companies are already trying, of their own accord, to reduce costs. The inclusion of CO_2 emissions arising outside the sovereign territory of the EU stretches international law's territoriality principle to the limit.