



## Key Issues

# Reducing CO<sub>2</sub> A 'Paris Agreement for Shipping'

In April 2018, the UN IMO adopted a ground breaking strategy setting very high levels of ambition to phase out CO<sub>2</sub> emissions across the sector, including a 50% total cut by 2050.

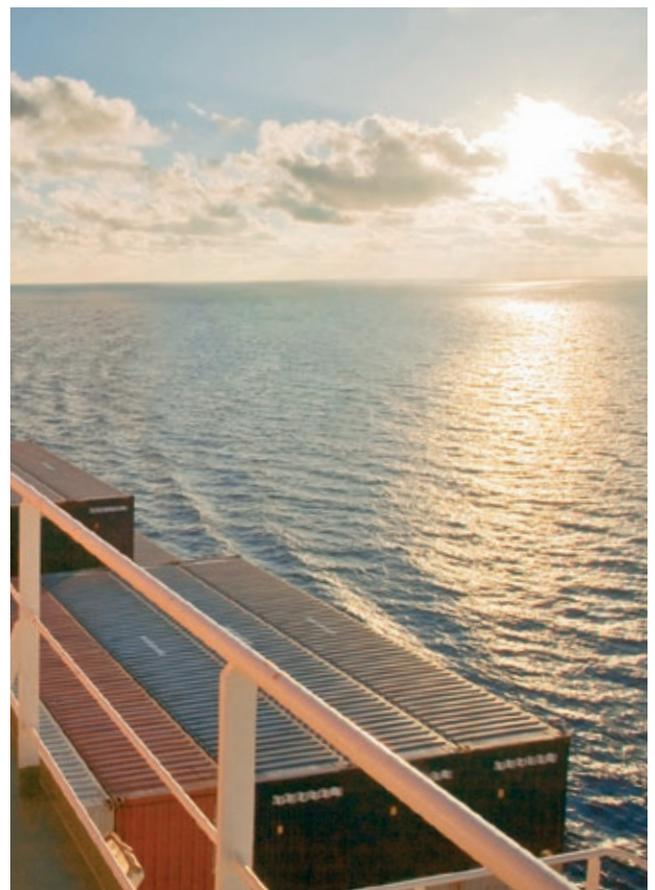
ICS is confident that new technology will eventually deliver, whether using fuel cells or batteries powered by renewable energy, new fuels such as hydrogen, or some other solution not yet anticipated.

Meanwhile, the shipping industry and its global regulator, IMO, have a good story to tell with respect to reducing CO<sub>2</sub> emissions and the mitigation of dangerous climate change.

Most importantly, in April 2018, the IMO Marine Environment Protection Committee (MEPC) adopted a comprehensive initial strategy for the further reduction of the international shipping sector's total CO<sub>2</sub> emissions, as a response to the Paris Agreement on climate change. In view of the complex politics involved, agreement by IMO upon such an ambitious strategy is a truly significant achievement. But the huge challenge that lies ahead will be for industry to successfully deliver.

According to the International Council on Clean Transportation (ICCT), the total CO<sub>2</sub> emissions from international shipping were about 8% lower in 2015 than in 2008, despite a 30% increase in maritime trade. Delivered with a combination of technical and operational measures – including improved speed management and the introduction of innovative technologies – this is an impressive level of total emissions reduction, especially as shipping has no control over the ever increasing demand for its services.

Moreover, as a result of amendments to Annex VI of the MARPOL Convention, adopted by IMO in 2011 – the first such global agreement to apply to an entire industrial sector – new ships delivered from 2025 must be at least 30% more CO<sub>2</sub> efficient than ships constructed before 2013.





## Initial IMO Strategy on Reduction of GHG Emissions from Ships

*Adopted on 13 April 2018 (key extracts)*



### Vision

IMO remains committed to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible in this century.

### Levels of Ambition

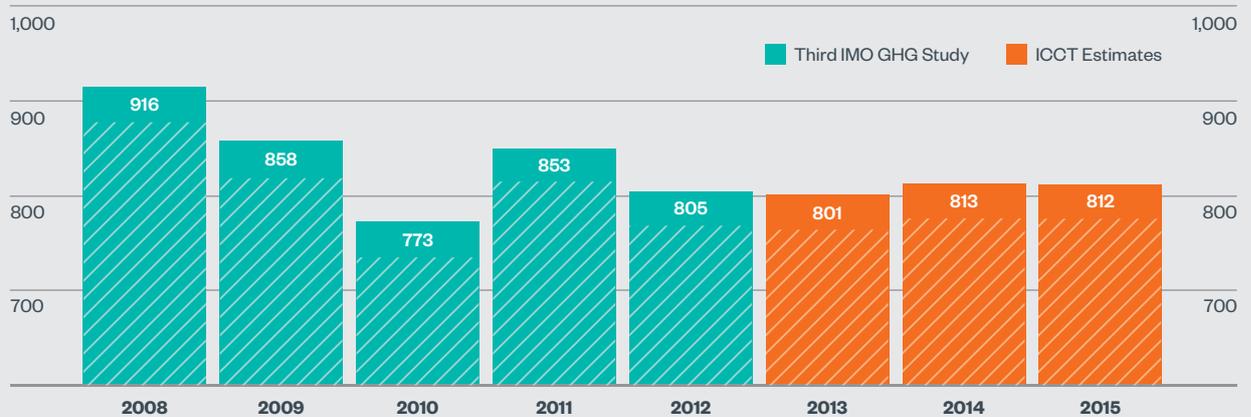
- 1. Carbon intensity of the ship to decline through implementation of further phases of the energy efficiency design index (EEDI) for new ships**  
To review with the aim to strengthen the energy efficiency design requirements for ships with the percentage improvement for each phase to be determined for each ship type, as appropriate;
- 2. Carbon intensity of international shipping to decline**  
To reduce CO<sub>2</sub> emissions per transport work, as an average across international shipping, by at least 40% by 2030, pursuing efforts towards 70% by 2050, compared to 2008; and
- 3. GHG emissions from international shipping to peak and decline**  
To peak GHG emissions from international shipping as soon as possible and to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008 whilst pursuing efforts towards phasing them out as called for in the Vision as a point on a pathway of CO<sub>2</sub> emissions reduction consistent with the Paris Agreement temperature goals.

*(The strategy also includes a list of candidate measures for further CO<sub>2</sub> reduction that will be considered by IMO, including measures that could be implemented before 2023.)*



### Total International Shipping CO<sub>2</sub> Emission Estimates

Million tonnes per year



Source: Third IMO GHG Study & ICCT

ICS recognises that society demands even more. Shipping, by far, is already the most CO<sub>2</sub> efficient form of commercial transport. But the sheer scale and size of the industry means that annual emissions from international shipping currently account for about 2% of the world's total.

There is a mistaken perception among some climate policy makers that shipping has somehow 'escaped' being covered by the obligations of the Paris Agreement. While it is true that international shipping (and aviation) is not covered by the non-binding CO<sub>2</sub> reduction commitments that governments have made with respect to their national economies, the United Nations Framework Convention on Climate Change (UNFCCC) has determined that responsibility for addressing the sector's emissions clearly rests with IMO – the only body that can do this effectively because international shipping emissions cannot be covered under national quotas.

IMO is required to make progress reports to the annual UNFCCC Climate Change Conference, as it did at the latest Conference (COP 23) held in Bonn in November 2017, which ICS also attended. ICS participated at several side events in order to communicate the industry's ambitions for serious CO<sub>2</sub> reduction. The next UNFCCC Conference, in Poland in December 2018, will be particularly important as governments and IMO will be required to make full reports on progress made since the Paris Agreement was adopted in 2015.

The vision of the IMO strategy agreed in April 2018 – which is based on a proposal originally made by the industry – is to phase out CO<sub>2</sub> emissions from shipping as soon as the development of new fuels and propulsion systems can make this technically possible.

To reiterate, zero emissions is something which ICS believes is achievable, but only provided that governments acknowledge the enormity of this challenge and take active steps to help facilitate the development of new propulsion technologies and the massive investment in bunkering infrastructure that will be required if zero CO<sub>2</sub> fuels are eventually to be made available on a worldwide basis.

In the meantime, regardless of enormous projected increases in maritime trade – due to population growth and economic development – IMO has set a very ambitious goal of cutting the sector's total emissions by at least 50% by 2050 compared to 2008. In addition, for as long as shipping remains dependent on fossil fuels, IMO has now set a goal of improving the sector's efficiency by at least 40% by 2030 and by 70% by 2050.





Prior to the critical IMO meeting in April 2018, ICS – in cooperation with other industry associations – played a central part in persuading governments to develop this ambitious response to the Paris Agreement. This was initiated by an important submission which the industry made to IMO in early 2016, just a few weeks after the Paris Agreement was adopted. This was followed by various detailed industry submissions to IMO during 2017.

IMO Member States have now agreed on very high levels of ambition for the further reduction of the sector's total CO<sub>2</sub> emissions, which clearly set out a direction of travel towards zero CO<sub>2</sub> emissions. Indeed, these CO<sub>2</sub> reduction objectives are actually far more ambitious than the pace of reduction that will be delivered by the commitments that governments have so far made with respect to the world economy as a whole. According to UNFCCC, the world's total CO<sub>2</sub> emissions will continue to increase at least until the 2030s whereas the shipping industry's CO<sub>2</sub> is already on a trajectory of serious reduction, IMO having now agreed with the industry's suggestion that the baseline year for measuring shipping's emissions is 2008, when CO<sub>2</sub> emissions were at their highest.

Most importantly, IMO has also agreed a comprehensive list of potential candidate measures for achieving these real CO<sub>2</sub> reduction objectives, in the short, medium and longer term. Detailed consideration of these measures will begin during 2018, with a further dedicated meeting on CO<sub>2</sub> reduction planned before the end of this year.

The list of candidate measures contains a number of proposals by governments for potential new regulations, some of which may prove controversial. These include mandatory speed restrictions, operational indexing of individual ships and, less controversially, consideration of further improvements to the existing Energy Efficiency Design Index (EEDI) that might apply to new vessels delivered after 'Phase 3' has been implemented in 2025. ICS member national associations will begin developing detailed input on all these proposals during the course of 2018.

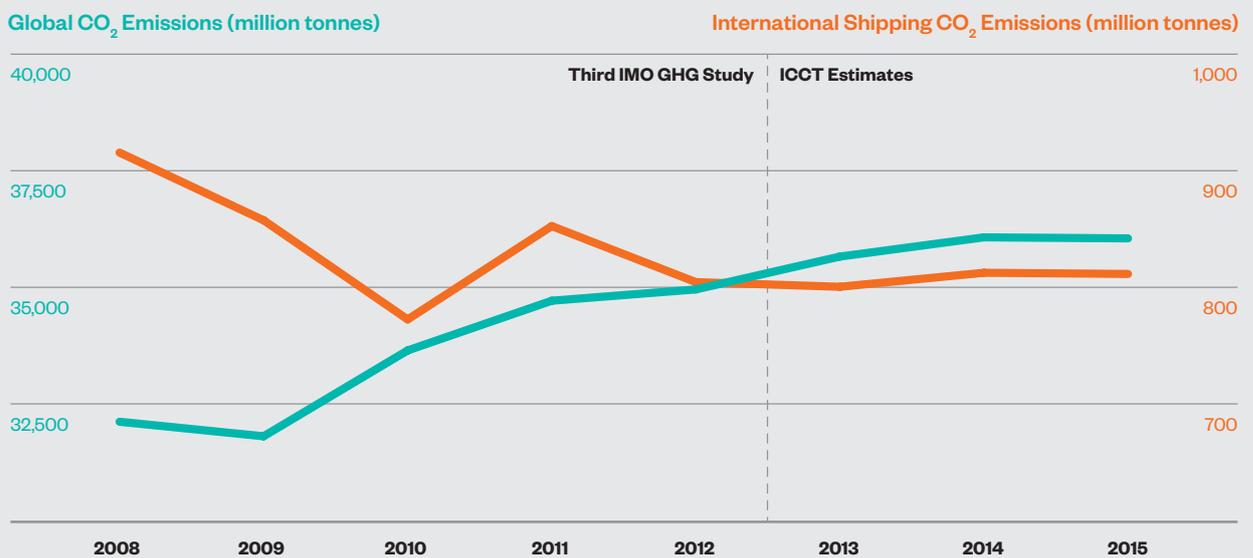
Most controversial among the possible candidate measures is further consideration of applying some kind of Market Based Measure (MBM) to international shipping.



UN Climate Conference (COP 23), Bonn, November 2017



## Reduction in International Shipping Emissions Compared to Increase in Global CO<sub>2</sub> Emissions



Source: Third IMO GHG Study & ICCT

The position of ICS is that it remains deeply sceptical of MBMs as a means of further incentivising CO<sub>2</sub> reduction. Fuel is already by far the largest cost for shipowners (far greater than the capital costs of owning a ship) and this is expected to increase dramatically as a result of the global IMO sulphur cap which will take effect in 2020. Shipowners already have all the incentive they need to explore every possible means of reducing their CO<sub>2</sub> emissions through technical and operational measures alone, as demonstrated by the impressive fuel efficiency improvements achieved since 2008.

However, in the event that IMO decides to develop an MBM, the clear preference of the global industry would be for a bunker fuel levy payable to some kind of IMO climate fund, with some of the funds deployed to support research into new low carbon technologies or to support the rollout of the expensive new bunkering infrastructure that will be required to supply zero CO<sub>2</sub> fuels, particularly in the ports of developing nations.

If IMO decides that an MBM is politically necessary, ICS believes that a fuel levy would be the mechanism least likely

to cause serious market distortion, as opposed to some kind of emissions trading system (ETS), something to which the industry is completely opposed. ICS has therefore welcomed the decision by the European Union, in November 2017, not to incorporate international shipping into the existing EU ETS.

Despite continuing doubts about the desirability of an MBM, the member national associations of ICS are political realists and have therefore been involved in intensive discussions for the past two years about how a fuel levy system might conceivably work in practice, so that ICS will be in a position to come forward with detailed ideas, for discussion with IMO Member States, should this turn out to be necessary.

The adoption by IMO in April 2018 of an ambitious initial CO<sub>2</sub> reduction strategy is a major achievement, as it had to take account of the legitimate concerns of emerging economies, such as China, India and Brazil, about the potential impacts on maritime trade and their economic development, consistent with the UN's Sustainable Development Goals.



ICS recognises that the IMO strategy, as agreed so far, also involved significant compromise on the part of many EU Member States, as well as by many other nations, including some Small Island Developing States (SIDS) whose very existence is threatened by climate change.

It should be remembered, however, that this is only an initial IMO strategy, which will be further developed by IMO Member States before being fully finalised in 2023. It is possible that the current levels of ambition agreed by IMO will be revisited in the near future, taking account of the results of the next IMO Green House Gas Study, which is scheduled to be conducted in 2019, using information from the new IMO CO<sub>2</sub> Data Collection System and the fuel consumption data that will soon be provided by individual ships to IMO on a mandatory basis.

Nevertheless, it is very important that the high levels of ambition that have already been established by the initial IMO strategy will be viewed by climate policy makers as a substantial step, sufficient to discourage unhelpful unilateral action, not only by the EU, but also by nations such as Canada, and individual U.S. States such as California and New York.

Unilateral or regional responses on this issue would lead to disastrous consequences for the global maritime regulatory regime which is vital for underpinning the provision of efficient maritime services. But most importantly, tackling CO<sub>2</sub> from shipping is a global problem. The dramatic move toward zero CO<sub>2</sub> emissions from internationally trading ships can only be achieved successfully through measures that are adopted by IMO for global application.

