



**An overview of the  
discussions from IMO  
ISWG-GHG 13 & MEPC 79**

Read out from UMAS

## Authors

Dr Tristan Smith  
Dr Alison Shaw  
Dr Jean-Marc Bonello

## Acknowledgments

UMAS would like to thank Isabelle Rojon and Annika Frosch for their assistance with note taking during the meetings and Dr Nishatabbas Rehmatulla for his assistance in preparing and publicising the report.

## Publication data

Publication date: 16.12.2022

## Preface

This report has been written by a team of experts from UMAS. The views expressed are those of the authors.

## Disclaimer

The information contained in this report is not an alternative to advice from an appropriately qualified professional. If you have any specific questions about any financial or technical matters, you should consult an appropriately qualified professional. UMAS will not be liable for any business losses, including without limitation loss of or damage to profits, income, revenue, use, production, anticipated savings, business, contracts, commercial opportunities or goodwill.

## About UMAS

UMAS delivers consultancy services and undertakes research for a wide range of clients in the public and private sectors using models of the shipping system, shipping big data, and qualitative and social science analysis of the policy and commercial structure of the shipping system. UMAS's work is underpinned by state-of-the-art data supported by rigorous models and research practices, which makes UMAS world-leading on three key areas; using big data to understand drivers of shipping emissions, using models to explore shipping's transition to a zero emissions future and providing interpretation to key decision makers. For more information visit: [www.u-mas.co.uk](http://www.u-mas.co.uk)

## Contact person

If you require any further information on this report, please contact:

Dr Tristan Smith  
[tristan.smith@ucl.ac.uk](mailto:tristan.smith@ucl.ac.uk)

Dr Alison Shaw  
[alison.shaw@ucl.ac.uk](mailto:alison.shaw@ucl.ac.uk)

## Contents

1	Summary.....	2
2	Overview of the discussions .....	3
2.1	Zero and net-zero, Tank to Wake and Well to Wake are all still on the table .....	3
2.2	Just and Equitable Transition .....	4
3	Revision of strategy details.....	5
3.1	Vision and levels of ambition .....	6
3.2	Candidate measures and timetable of follow up actions .....	7
4	Mid-term measures (GFS and levy/carbon pricing) .....	7
5	DCS, short-term measures.....	8

## 1 Summary

The thirteenth Intersessional Working Group on Greenhouse Gases (ISWG 13) and seventy ninth session of the Marine Environment Protection Committee (MEPC 79) meetings have kept the IMO's work to revise its GHG reduction strategy and develop new measures on track. Momentum has built towards an ambitious revision of the GHG reduction strategy, and whilst there remains no certainty of an outcome, the next round of policy developments at ISWG 14 (March 2023), and then finalisation at ISWG 15 and MEPC 80 (July 2023) will take the outputs from this meeting (a draft text for the Revised Strategy) as their starting point.

There was a clear voice calling for high ambition from a range of countries with varied economic development, and from industry organisations. This included support for 1.5-alignment in levels of ambition, the need for well-to-wake (WTW) to frame GHG reductions, the need for a levy and a fuel standard, and the need for policy to enable equitable transition. As an example of the breadth of support, World Shipping Council and Korea echoed many points originally introduced by leading voices of high ambition, the Pacific countries Marshall Islands and Solomon Islands. The meeting saw new voices join the ambitious side of the debates. There were several positive statements made towards increased ambition by African countries, and support from India, Saudi Arabia amongst others for a new ambition that at least 5% of the fuel mix in 2030 is 'alternative' fuels, a concept also supported by the United States.

Concerns relating to increases in transport cost, voiced by a number of middle-income countries, continue to be raised. However, this group of around 10 countries seemed more isolated than in previous rounds of debate, now that more ambitious statements are being made by other developing countries (not just a group of Pacific SIDS). Rather than the debate being polarised between developed economies and a small group of SIDS on one side, and a large group of developing countries on the other side, this is now a multi-layered debate with various different agendas appearing in interventions.

One potential explanation for this is that many countries are clearly seeing the opportunity for renewable energy and hydrogen/hydrogen derived fuel. For example, Namibia, was very clear on this in their interventions, but many others listed new investments and developments relating to hydrogen as evidence of how seriously they were taking the need to address the risk of dangerous climate change. The potential upside of further investment, enabled by IMO regulation, means that for many countries it is not only downside risk due to impacts on trade that frames their view on the IMO GHG debate, as was often presented previously.

The meeting further progressed the topic of mid-term measures (policies that can enable a fuel transition), and it is now possible to see a narrowing of the options feasible in July – which is necessary

in order to move onto the comprehensive impact assessment and finalisation of some form of carbon pricing, and a technical measure (e.g. fuel standard). The objectives of the group for these measures were further clarified in the meeting - in addition to securing GHG reduction and energy transition, these will need to ensure a just and equitable transition.

## 2 Overview of the discussions

ISWG 13 and MEPC 79 were largely about building momentum. There were two major items under discussion both of which have large political significance (for IMO and its member states), as well as having major consequences for the international shipping sector:

- Revision of the Initial Strategy – how will ambitions (including GHG reduction targets) and other high level detail be revised from the strategy agreed in 2018. This remains on track for adoption at MEPC 80 – July 2023
- Development of mid-term measures (including GHG pricing and fuel standards) – e.g. what policy measures will IMO adopt to help drive the transition away from fossil fuel. This remains on track to move to the final phase of measure development also at MEPC 80 in July 2023, at which a narrower specification of measures will move to finalisation.

Neither of these items were due for any finalisation in these meetings. Over the course of the sessions, it has become clear that Members largely consider the policy elements to be interconnected meaning that debates on the Revised Strategy, the mid-term measures and impact assessment are likely to continue to progress in parallel, becoming more of a package deal as the process moves on. This makes outcomes difficult to predict but should ensure a cohesion across these policy elements.

There was one major finalisation at this meeting – a revision to Circular.885 which is the circular which defines the way a comprehensive impact assessment is undertaken. This assessment was also carried out on the CII/EEXI measures. The revised procedure was finalised with little modification to the proposed way ahead secured as an outcome from ISWG GHG-11. The fact that this was relatively smooth is a positive sign relating to the spirit of cooperation, given how contentious the subject of impacts on states has been in the past.

Whilst the ISWG meeting was more tightly structured around specific agenda items, the main debate in the MEPC was less structured. Much of the MEPC was taken up with more general statements by countries and organisations. Within these were some positive signs that offer hope that when IMO reaches the key decision points these will be progressive. One explanation includes that countries such as Namibia, recognised the link between shipping's decarbonisation and the opportunity for investment into their country - for green hydrogen and ammonia production.

Despite there being little to conclude from this meeting, there were some useful developments, including from individual countries, discussed below in Section 3,4 and 5. Two cross-cutting issues are relevant to both of the main discussion items and further described here.

### 2.1 Zero and Net-zero, Tank to Wake and Well to Wake are all still on the table

These terms have a large importance because they qualify the nature of the emissions reduction effort. Groups are forming around three different interpretations:

- Zero – meaning zero on a well-to-wake or lifecycle basis, sometimes referred to as 'absolute zero'
- Net-zero, not offsetting – International Chamber of Shipping have been a proponent of the term net-zero to clarify the decarbonisation objective, however they have made it clear they do not think that this should include out-of-sector offsetting as a means to achieve the objective
- Net-zero, with offsetting – when some countries use this term, it may be aligning with ICS and exclude offsetting, or they are expressing the more common understanding of this term, which would be to include the potential to offset to achieve IMO's GHG reduction objectives.

Likewise on lifecycle emissions there are at least three groups forming around terminology:

- Well to Wake (WTW) – include all lifecycle emissions in targets and/or measures, to avoid moving emissions from sea to land, and/or to ensure investment into production of scalable zero emission fuels
- Tank to Wake (TTW) – include only TTW emissions in targets and/or measures, often justified by the IPCC accountancy that IMO reports emissions from the ships and land-side emissions are reported in countries' NDCs
- TTW now, WTW later - a combination of both concepts

These terms are important for both the specification of the targets (levels of ambition) and vision that appear in the revision of the GHG reduction strategy. They are also used for the specification of measures – for example, would a technical (fuel standard) or economic (GHG price/levy etc.) act on TTW or WTW emissions. Existing measures (EEDI/EEXI/CII) are all based on tank-to-wake CO<sub>2</sub> emissions, but because these are primarily aimed at increasing efficiency in the current fossil fuel paradigm, it's the mid-term measures which need to incentivise a fuel transition, where this framing is very important.

The key argument for those who advocate for TTW is that it's IMO's responsibility to regulate emissions from the ship, not emissions that occur on land. For some this appears to be a principle point about the limits of IMO's mandate, whereas for others it is more about practicality – how does IMO ensure, in practice that one tonne of ammonia is green ammonia produced from renewable energy, and not grey or black ammonia produced from uncaptured fossil feedstocks. The latter is a question for certification or similar processes, which is being discussed as part of the Lifecycle Guidelines, due for adoption at MEPC 80.

Generally, momentum is building towards zero (not offsetting) and well-to-wake – the definitions that would both focus GHG reductions in-sector, supporting in-sector decarbonisation investment alongside investment to decarbonise the production of new scalable zero emissions fuels. There were important signals that there was new support for this framing when Liberia, among others, supported well-to-wake in some of their interventions. However, there remains significant support for net zero and tank-to-wake definitions. As such, this remains an open issue. The range of country circumstances help to explain a lot of these perspectives, including:

- Remote countries concerned about the higher transport cost increase of the most stringent framing (zero on a well-to-wake basis), affecting either imports or exports
- Countries with significant fossil fuel production / refining who would sustain opportunity and income from a longer period of fossil fuel use in shipping
- Countries with a strong shipowner lobby opposed to clear and stringent regulation

Counter-intuitively, there are countries that have the potential to benefit significantly from opportunities in the transition and investment in hydrogen-derived fuel production who still support tank-to-wake and net zero (possibly implying offsets). Supporting those points may be because they see the downside risks (e.g. impacts on trade from the higher costs from use of green fuels), outweigh the upside opportunity (e.g. direct investment to stimulate their renewables industry).

## 2.2 Just and Equitable Transition

Multiple submissions and interventions addressed the need for a just transition, equitable transition or a just and equitable transition. Broadly speaking:

- A Just transition with regards to the shipping sector refers to a human-centred approach for safe, secure and decent work. More specifically it aims to address seafarers' needs, particularly in

relation to training and re-skilling, as they prepare to handle new fuels, ships and technology in the transition. [Read more here.](#)

- Equitable transition – a transition that increases equity between states – including a transition that is procedurally fair, equitable in relation to maritime mitigation (opportunities for research, development and deployment of new fuels and technologies are available to all), and equitable in relation to climate impacts (recognising responsibility of the shipping industry for climate impacts).

Although these concepts are different, they share one common aim, to leave no one behind – no individual or country, in the transition to sustainable shipping, and to enable all to benefit from the new opportunities the transition may provide.

These terms are perceived as important to both the revision of strategy, and the measures. In the revision of the strategy, they may guide/frame all the subsequent work. In the measure debate they can imply specifics of how the measure might be operationalised – for example how revenues from a GHG pricing measure will be deployed. These terms advance from a narrower framing in the initial strategy - to assess disproportionate negative impacts on states and address where appropriate.

The voice of the seafarer community was clear in the meetings, both from ITF and from states that have large portions of their population employed as seafarers, such as Philippines. There was also strong support for 'Just Transition' from among others the US. Similarly, ensuring an equitable transition was mentioned by many countries. The call for an equitable transition was particularly supported by a group of Pacific countries and then echoed by several developed countries, including in Europe.

The challenge with either of these phrases is how the interests of middle-income countries, particularly those remote and/or trading low value commodities, will be addressed. Argentina, South Africa, among others, made clear their concern that a generalised transport cost increase would flow through to their economies negatively impacting their population through a combination of market losses, shifting trade patterns, high import costs or all three.

As a result, despite the broad range of countries, in both geography and development status, that supported the possible inclusion of the concept of a just and equitable transition in the Revised Strategy, it is not yet clear if this will be the outcome. For some countries the concepts need further exploration to increase collective understanding and for others, progress must be made in other sections of the Revised Strategy and even in the development of Measures before the concepts could be integrated into the Revised Strategy. The most encouraging signal is that every Member State appeared to be interested in a Just and Equitable transition, what it could mean, how it could become part of their policy work and there was a general sense of collective openness to furthering the aim of a just and equitable transition.

### **3 Revision of strategy details**

The adoption of the Initial Strategy on GHG in 2018 was a breakthrough for the IMO, given that prior to that point the IMO had not acknowledged, in any way, the need to phase out shipping's use of fossil fuels. However, the initial strategy is also not clearly aligned with the Paris temperature goals, particularly the 1.5 goal which is where broader political and commercial momentum has since moved. This ISWG 13 meeting represented the first substantial discussion, underpinned with multiple detailed text modification proposals, on a strategy revision that IMO reaffirmed it would conclude at MEPC 80 in July 2023.

The meeting started with a document compiled of all the different text suggestions that were put forwards by different countries and organisations in their submissions. Through the ISWG 13 meeting, and a working group during MEPC 79, each section was reviewed. This enabled a much broader group of countries than those who had made specific text suggestions, to express their support (or not) for specifics. The IMO secretariat and the chair of the working group then 'tidied' the different sections, merging and removing duplication, and trying to reflect the debate. The text includes both drafting from

the initial strategy and various snippets from the different submissions made to this meeting. The output from this process is a shorter document than the initial compilation of every suggestion, albeit a document that still contains many different and contradictory draft statements that will hopefully be resolved through further discussion. Specific discussions on some of the key sections are described below. This process will continue at the next Intercessional meeting and the document should be considered as open to change in any section until it is finally closed at MEPC80.

### 3.1 Vision and levels of ambition

The levels of ambition are an attempt to capture the ‘shape’ of the CO<sub>2</sub>/GHG reduction pathway that the IMO will develop policy to achieve. In the initial strategy there are only 2030 and 2050 levels of ambition, and language describing the pathway. Many of the submissions to ISWG 13 sought to improve on that by providing interim targets, including a 2040 target. Previous meetings confirmed that the levels of ambition should be strengthened, in light of developments including the IPCC’s latest reports, and that was reaffirmed at this meeting.

In spite of the MEPC’s commitment to strengthen levels of ambition, a minority of countries (9 of the 46 countries who spoke) still argued that the levels of ambition should remain as in the initial strategy. This contrasted with the majority of countries clearly calling for zero or net-zero by 2050 (30 of the 46 countries who spoke), and a number of countries (Japan, Marshall Islands, Solomon Islands) specifying GHG reductions in 2040 of 50/60/80% on 2008, variously on a TTW and WTW basis. To give an indication of the range of different positions, submissions with specific numbers are captured in Figure 1, along with the BAU scenarios and the IPCC’s pathway for a 1.5-aligned pathway (for all anthropogenic GHG emissions) with no/low overshoot.

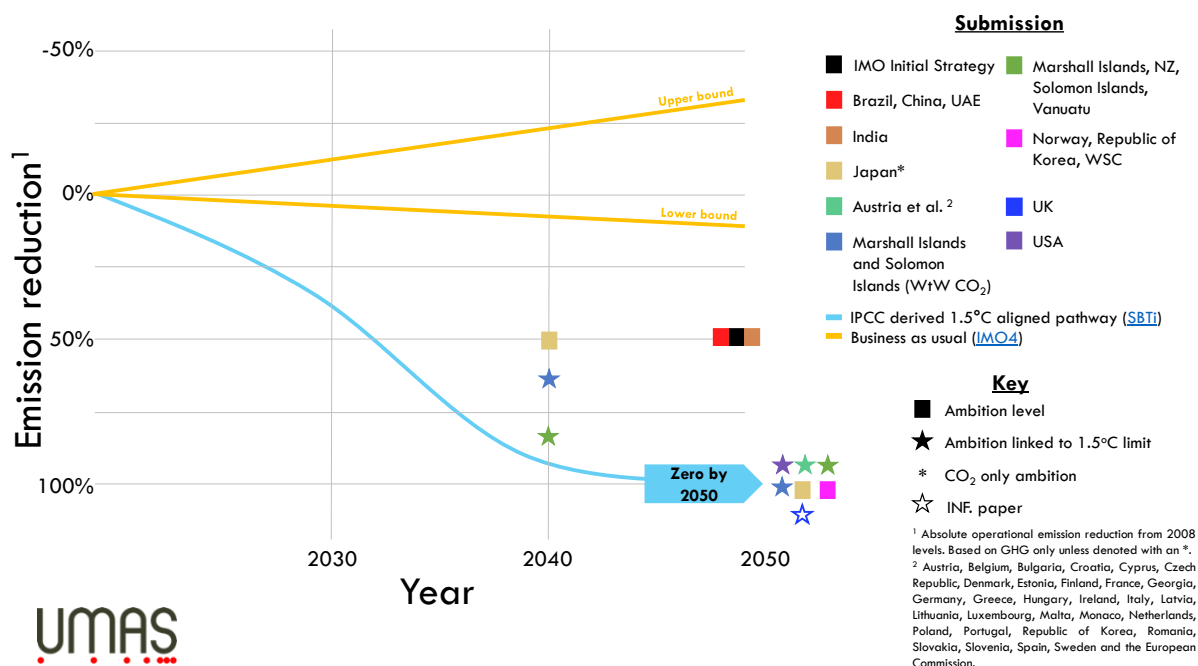


Figure 1<sup>1</sup>: Summary of different levels of ambition in discussion at ISWG 13 and MEPC 79

Following debate and discussions, the specifics that have progressed in the draft revision of the strategy include:

<sup>1</sup> Only Member States’ submissions were charted for the purposes of this graphic and targets for absolute reduction were the focus.

- Framing language related to 1.5 degree temperature goals and the need to avoid GHG emissions being displaced from shipping to land
- The idea to include interim levels of ambition or checkpoints, including a 2040 target
- The idea to strengthen the 2030 ambition – albeit without agreement of what to strengthen this to
- The idea to include a target for alternative fuels (e.g. 5% in 2030) – albeit without agreement of which ‘alternative’ fuels this would include

Many other suggestions remain included in this section and will be further debated at the next meeting.

### 3.2 Candidate measures and timetable of follow up actions

Relatively little modification was made to the later sections in the revision of the strategy, besides a removal of text that is now redundant, given that since the initial Strategy short-term measures have been developed and mid-term measures are underway.

There remains a key question about the timelines for the development and finalisation of mid-term measures which has not been resolved. In one section (follow-up actions) the timeline is vague and lacking specifics. In another section (candidate measures), there are a range of potential drafts, including specific detail on which measures (levy and GHG Fuel Standard) will be implemented. This timeline and the further work needed to finalise measures will therefore need to be refined through further discussion.

## 4 Mid-term measures (GFS and levy/carbon pricing)

The development of mid-term measures is scheduled in accordance with a workplan adopted at MEPC 76. This had three phases of development:

- Phase 1 – collation and initial consideration (spring 2021 – spring 2022)
- Phase 2 – assessment and selection of measures (spring 2022 – spring 2023)
- Phase 3 – development of measures(s) to be finalised with an agreed target date unassigned, as yet.

This meeting was therefore in the middle of phase 2 and built on the outcome of ISWG 12 when measures were last discussed in detail (summary of that debate can be found [here](#)).

The meeting saw the addition of some new suggested measures, as well as some refinements. No final conclusions were made, so this interpretation of the debate is an estimate of what happens next:

- The new suggestion for an IMO programme on Green Corridors was not widely supported, many preferred this to remain bilateral action between states and industry, rather than converting it into a multilateral process. This looks unlikely to progress further at IMO.
- The suggestion for an ECTS (Emission Cap-and-Trade System), by Norway, was not supported and looks unlikely to be in the short-listing that concludes phase 2.
- The concept of a fuel standard as a technical element/measure was widely supported, including as a component in a basket of measures, and by proponents of economic measures.
- The concept of a levy (or a feebate or fund and reward scheme) as an economic/element was widely supported, including as a component in a basket of measures and by proponents of a fuel standard.
- ICS proposed a modification to the concept of International Maritime Sustainability Funding and Reward (IMSF&R) first introduced by China et al. at ISWG 12. In their variant, the measure is simpler, closer to the International Maritime Research Board (IMRB) proposal so primarily a levy + fund, and does not use the CII mechanism to define the fund/reward contribution.



- The cosponsors of Zero-Emission Shipping Incentive Scheme (ZESIS) (Japan), GFS (Austria et al.), GHG Levy (Marshall Islands and Solomon Islands), all presented further updates and evolutions of the measure proposals they had made to earlier meetings.

There remain fundamental differences between proposals on whether they are based on WTW (GHG levy, GFS), or TTW (IMSF&R). One nuance that has been clarified by some countries is the idea that a measure could regulate on a TTW basis, but reward on a WTW basis.

Besides the GHG levy which has proposed a specific stringency of a price starting at \$100/tonne of CO<sub>2e</sub>, no other proposal has a specified stringency, and are expected to derive their stringency from the Revised Strategy’s level of ambition specifications.

The conclusion of the session further strengthened the outcome of ISWG 12 – that there is “increasing support” for a basket (combination), that has both technical and economic elements in it. The conclusion also referred to the basket promoting the energy transition of shipping and ensuring a level playing field and a just and equitable transition. This signals that at this point, there is broad agreement that mid-term measures should be about both ships and the fuels they use, and that the concept of a just and equitable transition will need to be ‘ensured’ by the policy measures adopted.

The use of the word ‘elements’ as opposed to ‘measures’ means that there are several options for the short-listing that are on the table. It includes measures that combine technical and economic elements, as well as including the combination of measures that separately contain technical and economic elements.

Based on the proposals that have been put forwards, there are a range of architectures that could conceivably be combined and satisfy the summary statement from this negotiation. This clarity was not provided in the report and is only an estimation of the implications of the summary. It also remains the case that new measures proposals can be brought forwards at any point up to July.

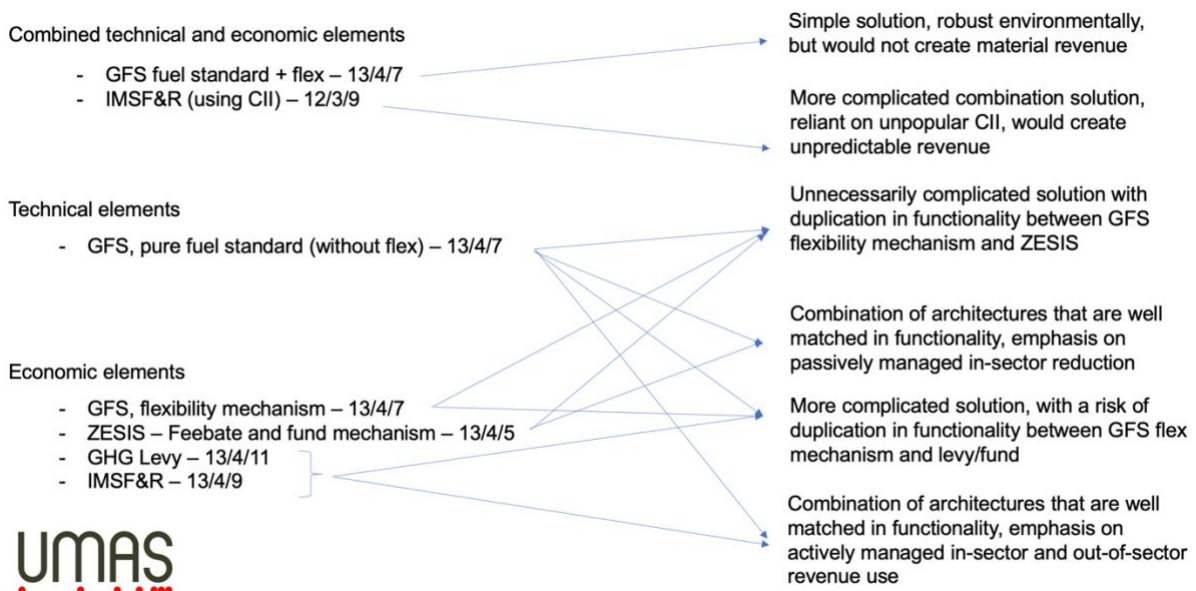


Figure 2, potential combinations of measures or elements of measures

## 5 DCS, short-term measures

A separate but important agenda item explored a revision to the Data Collection System (DCS) – the repository for fuel consumption reports and data. This repository is used for the evaluation of Carbon

Intensity Indicator (CII) and is a critical element in the design of the mid-term measures. Two specific improvements were proposed and were broadly supported:

- To include both cargo mass data, and more granular specifics (fuel consumption in port, at sea etc.)
- To make the data recorded in DCS more transparent/accessible

Nothing has been finalised on either of these ideas, but the fact that they were broadly supported bodes well for their future inclusion in some form. This inclusion is important, both to enable CII to move from the current AER indicator used for much of the fleet to EEOI or similar, a development called for by many in the industry as a more representative quantification of carbon intensity, and to enable lower cost and easier access to data for use in voluntary mechanisms.