



The certification backbone

by **Gérald Baiwir**, *Head of Environment, Aderco*

Looking beyond compliance with environmental regulations, shipping companies are discovering that savings from on-board energy-efficiency measures can be converted into valuable, Gold Standard-backed carbon credits, allowing them to benefit financially while reducing emissions.

Until recently, this process has been labour-intensive and resource-heavy. Operators have had to reconstruct their vessels' performance data retroactively, often working with incomplete or inconsistent datasets. This has resulted in lengthy validation timelines, significant uncertainty around data accuracy, and, in worst-case scenarios, disputes over performance improvements. On the flip side, genuine efficiency has often gone uncertified: not because the gains weren't real, but because the data lacked the structure needed for certification.

To address this, Aderco has rolled out a new 'measure-as-you-go' programme, 2055G+, which operators can use to ensure that the steps they take to improve energy efficiency are reflected in accurate data. 2055G+ offers a single, transparent data framework that is continually updated, audit-ready, and accessible to stakeholders, including shipowners, operators, and charterers.

Verified data over estimates

Performance data varies with route, weather, and load profiles. 2055G+ addresses these differences through vessel-specific baseline modelling, advanced benchmarking, and continuous data normalisation, ensuring performance is measured fairly and accurately, regardless of fleet profile.

Its methodology follows an approach similar to the EU Monitoring, Reporting and Verification (MRV) Regulation, and the EU Emissions Trading System (EU ETS); it applies rigorous filters – linked to minimum sailing hours, sea state conditions, and 'laden condition only' – to ensure data quality and comparability. In this way, charter party negotiations over voyage performance rest on verified data rather than estimates, and users can be sure of their position with respect to the Carbon Intensity Indicator (CII) and the EU's MRV and ETS, among other regulatory frameworks.

Ownership of emissions reductions – and, by extension, the voluntary carbon credits (VCCs) they generate – is clearly

defined from the outset. In short, 2055G+ replaces debate with shared, verifiable data. Once dataset quality is secured, the next step is monetising those verified reductions.

Savings into credits

In the first instance, the 2055G+ process is being applied to offer full transparency on the impact of Aderco's 2055G additive in enhancing fuel performance and reducing CO₂. It establishes a fuel and emissions baseline using noon reports collected over the vessel's full dry-dock cycle as the starting point for 2055G use under real operating conditions for a minimum of six months to optimise fuel efficiency and reduce emissions.

Pre- and post-treatment fuel consumption is compared using operational data that is also verified by Adi Terra, an independent project developer. The resulting CO₂ savings are converted into certified carbon credits, delivering both financial returns and verifiable environmental impact. These credits are validated under the Gold Standard

2055G⁺

CUT CARBON. CREATE VALUE.

Turn operational efficiency into financial and environmental value



THE "SPLIT INCENTIVE" CHALLENGE

A split incentive means efficiency investments are often difficult to justify.



WHY A PRAGMATIC APPROACH MATTERS

60,300+

Ocean-going merchant vessels larger than 1,000 GT.

95%

of fuel consumed in the marine sector is **liquid fossil fuel**.

>75%

of vessels operate in the **tramp trade**.

20-30 YEARS

Typical merchant vessel lifespan.

With today's fleet expected to operate for decades, the industry needs pragmatic solutions that deliver measurable value within today's commercial and regulatory landscape. 2055G+ provides exactly that.

THE 2055G+ SOLUTION: FROM FUEL TO FINANCIAL VALUE



VERIFIED RESULTS ACROSS THE GLOBAL FLEET

Fuel savings shown were achieved using Aderco 2055G fuel treatment.



Not all vessels are eligible. Programme eligibility is assessed on a vessel-by-vessel basis.

PROGRAMME CREDIBILITY



A no-CAPEX solution that can be implemented directly with charterers while also recognising qualifying efficiency upgrades completed during dry docking.

Retrofit Methodology, providing high liquidity and strong market value.

The potential gains are far from theoretical. Even before qualifying for VCCs, adopters can realise instant fuel-related savings. Classification societies have independently verified that 2055G+ reporting consistently records reductions in fuel consumption and corresponding CO₂ emissions by 3-5%. Examples include a 3.25% reduction on a Capesize vessel, verified by RINA, and a 4.84% reduction on a reefer ship, verified by ABS. In many cases, this improved fuel efficiency is enough to raise a vessel's rating by one band (for example, from C to B, or from D to C), preventing a downgrade as IMO requirements tighten. Because CII impact is highly ship- and operation-specific, 2055G+'s ability to continuously monitor performance is especially useful.

Straightforward commercial logic

The primary value of efficiency measures lies in reducing fuel consumption and associated emissions. However, under many commercial charter arrangements, these fuel savings are realised by the charterer rather than the vessel owner, creating a well-known

split incentive that can discourage investment in decarbonisation measures. The ability to generate Gold Standard VCCs addresses this by creating a new revenue stream for the party making the investment.

Fuel savings therefore remain the operational foundation of the programme, while certified carbon credits provide an additional financial return that helps unlock investments that might otherwise not proceed. Under current voluntary carbon market conditions, these credits command strong demand and attractive liquidity.

The commercial logic is straightforward: fuel savings improve operational efficiency, while carbon credits create an additional source of value for vessel owners, aligning commercial incentives with decarbonisation. These measures can take many forms, including (but not limited to) propeller

optimisation, anti-fouling hull coatings, and waste heat recovery systems.

Better positioned

Today, 2055G+ certifies fuel treatment. Tomorrow, Aderco's ambition is broader: any retrofit measure that demonstrably improves vessel efficiency is a candidate for generating certified carbon credits. We are building the data and certification backbone that strengthens the business case for reducing emissions, whether stakeholders benefit through lower fuel consumption or via the parallel revenue stream from tradable carbon credits.

As IMO CII, EU ETS, and the voluntary carbon market continue to evolve, shipowners who adopt this capability early will be better positioned to enhance asset value, accelerate compliance, and strengthen the business case for fleet decarbonisation. □



Aderco delivers innovative, plant-based fuel treatment solutions that help industries run cleaner, more efficient, and more sustainable operations. Our ash-free, metal-free formulations improve fuel performance, cut emissions, and protect engines and equipment across the marine, mining, power generation, rail, and transport sectors. Go to aderco.com/en to discover more.