

June 2026

Advanced Motor Fuels News



Photo by Harrison Kugler on Unsplash

Hyundai initiates Latin America's first-ever fleet operation of hydrogen fuel cell heavy-duty trucks. The trucks utilize two 90 kW fuel cell stacks and a 350 kW electric motor.

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SAF Price Crisis: How Oil Markets Undermine Sustainable Aviation Fuels

June 2, 2026 – The sustainable aviation fuel (SAF) market is facing a paradox: despite stable feedstock costs, such as used cooking oil and tallow, SAF prices are surging. This increase is not driven by its own supply chain dynamics but rather by the fact that SAF prices are pegged to gasoil futures, which follow crude oil market trends. As a result, SAF, which should be independent of fossil fuel fluctuations, is being dragged along by the rising costs of conventional jet fuel, undermining its economic viability.

Airlines are responding to the unsustainable fuel costs by raising fees for passengers, cutting routes from their networks, or, in extreme cases, even ceasing operations entirely. Meanwhile, EU mandates, such as ReFuelEU Aviation, are accelerating the demand for SAF. However, supply remains constrained and expensive, with SAF now costing up to five times more than conventional jet fuel in some markets.

The core issue lies in the lack of independent pricing mechanisms for SAF. Unlike traditional jet fuel, where costs are directly tied to specific crude oil slates and refining processes, SAF prices are benchmarked as a spread to gasoil. This approach ignores the unique and localized dynamics of SAF feedstock supply chains.

Source:

<https://www.greenairnews.com/?p=8976>

Everllence Modifies Marine Engine to be Run Entirely on Hydrogen

Everllence, former MAN Energy Solutions, has converted a test bench for research engines at its Augsburg site so that it can run on hydrogen. The company announced this already in February 2026.

As part of the HydroPoLEn project, launched at the end of 2023, Everllence has not developed a completely new engine. The basis is an existing dual-fuel four-stroke series that has previously run with natural gas and diesel. This medium-speed single-cylinder research engine was modified so that it can run on 100% hydrogen.

As early as 2021, the company launched four-stroke engines capable of running on a 25% hydrogen blend. However, making the leap to 100% is a significant and promising, but also challenging, development from a technical perspective. It requires fundamental changes to the combustion chamber, fuel injection system and thermal management.

The research engine is currently only being tested on a test bench. HydroPoLEn is still a long way from producing a ship propulsion system ready for series

production. So the first step is to demonstrate that the technology works in principle.

Source:

<https://www.everllence.com/company/press-releases/details/2026/02/26/r-d-project-takes-step-towards-co--neutral-propulsion>

Green Ammonia Corridor: Saudi–German Consortium Targets Hydrogen Imports via Rostock

A consortium comprising ACWA Power, EnBW, ROSTOCK PORT GmbH, and VNG AG has signed a memorandum of understanding (MoU) to establish an international green ammonia supply corridor. The project envisions exporting ammonia produced in Yanbu to Rostock.

At its core is the development of an integrated power-to-X value chain: ACWA Power will lead green hydrogen production and ammonia synthesis, while EnBW will act as the offtaker, managing transport and commercialization. In Rostock, VNG plans to develop ammonia cracking infrastructure to reconvert imports into hydrogen for injection into Germany's emerging hydrogen backbone network.

Targeted for commercial operation around 2030, the project aims to scale international hydrogen derivative supply chains. Beyond decarbonizing hard-to-abate sectors, the corridor is positioned to enhance energy security and establish Rostock as a key import hub for green molecules in Northern Germany.

Source:

<https://www.rostock-port.de/presse-news/aktuelle-meldungen/news/his-royal-highness-prince-abdulaziz-bin-salman-witnesses-the-signing-of-a-landmark-green-ammonia-corridor-mou-between-acwa-and-german-counterparts>

Europe's Oil Giants Accelerate Shift to HVO Biofuels as Diesel Demand Declines

Europe's energy transition is reshaping the biofuel sector: The Polish company Orlen invested 189 Mio. € to start a facility that hydrates plant oils and produces up to 300,000 tons of biofuels per year. It is planned to extend this capacity to 1.1 million tons by 2030.

Spanish Repsol has launched a new HVO plant in Puertollano. The company invested 130 million € for this facility that produces up to 200,000 tons of biofuels per year.

The Italian Eni secured a loan of 500 million € from the European Investment Bank to transform a current production site in Pavia into a biorefinery. The refurbished plant will have a capacity of 500,000 tons, aiming for 5 million tons annually by 2030, including over 2 million tons of sustainable aviation fuel (SAF).

Germany's first HVO plant, commissioned by HOLBORN, is under construction in Hamburg. Scheduled to start in 2027, the €500 million facility will

produce 220,000 tons of HVO and SAF per year, using green hydrogen.

The shift reflects EU mandates under RED III, which require higher biofuel quotas as diesel demand falls due to the rise of e-mobility. The EN 590 diesel standard allows up to 26% HVO blending (R33), a limit already tested in 2020 when a 6% GHG reduction obligation had to be physically met. Meanwhile, biodiesel (FAME) remains cheaper to produce, offering a niche for pure biofuel marketing amid volatile oil prices.

Sources:

<https://renewablesnow.com/news/polands-orten-launches-eur-189m-biofuels-plant-1295336/>

<https://renewablesnow.com/news/repso-starts-renewable-diesel-production-at-spanish-refinery-1295372/>

<https://renewablesnow.com/news/eni-gets-eur-500m-loan-for-biofuel-production-at-italian-refinery-1292456/>

<https://www.holborn.de/en/press/midway-point-for-the-gdp-complex>

Bayer and bp to Commercialize Camelina in North America

Bayer and bp entered into an alliance to jointly scale the camelina in North America. Bayer will focus on seed technology and working with its farmer customer base, while bp expertise is in fuels and refining. The alliance aims to further develop a reliable intermediate oilseeds market to help meet the growing demand for biodiesel, renewable diesel, and SAF, which is estimated to increase almost threefold to 40 billion gallons by 2040. Bayer sees camelina as an intermediate crop between main growing seasons within existing rotations.

Source:

<https://www.agnavigator.com/Article/2026/05/14/bayer-bets-on-stronger-than-ever-policy-tailwinds-to-scale-camelina-for-biofuels/>

H2 Mobility Restructures Hydrogen Refueling Network in Germany

H2 Mobility is phasing out several early-generation hydrogen stations in Germany, including sites in cities such as Berlin, Duisburg, Essen, and Ingolstadt. The closures primarily affect early stations designed for passenger vehicles (700-bar systems), which are no longer considered fit for purpose. According to the company, these assets lack sufficient storage capacity and throughput to meet current performance requirements—particularly for commercial vehicle applications.

The move reflects broader market dynamics: hydrogen mobility uptake in the passenger car segment has lagged expectations, while future demand is increasingly seen in commercial transport applications. As a result, the company is consolidating its network around high-utilization corridors and industrial demand centers. It is shifting its focus toward a more demand-driven infrastructure strategy centered on heavy-duty

transport. Future investments will prioritize high-capacity 350-bar refueling stations for buses and trucks, aligned with expected growth in commercial hydrogen mobility.

Source:

https://www.mobilityenergy.com/en/industry/2025/11/17/fourteen-hydrogen-filling-stations-in-germany-to-close-this-year-focusing-on-forward-looking-locations/?utm_source=chatgpt.com&gdpr=accept

KIT Develops Direct Solar-to-Hydrogen Technology for Simplified Green Hydrogen Production

The Karlsruhe Institute of Technology (KIT) reports on a new approach developed by its spin-off Photreon for producing green hydrogen directly from sunlight and water, without using conventional electrolysis or external electricity input.

The technology is based on a photocatalytic reactor panel that converts solar energy directly into chemical energy, splitting water into hydrogen and oxygen within a single integrated process. Light-absorbing materials generate charge carriers that drive the water-splitting reaction, eliminating the need for the traditional photovoltaic-to-electrolysis chain.

A key feature of the system is its modular, scalable panel design, which integrates light management, reaction space, and product separation in a compact architecture. A first 1 m² prototype has already been demonstrated.

The technology is patent-protected and aims to reduce system complexity and costs in green hydrogen production by fundamentally simplifying the energy conversion pathway.

Source:

https://www.kit.edu/kit/english/pi_2026_032_green-hydrogen-from-just-sun-and-water.php

POLICY / LEGISLATION / MANDATES / STANDARDS

IEA Bioenergy Task 39 Launches Survey on Biofuels for Decarbonizing Land Transport

IEA Bioenergy Task 39 is calling on a wide range of experts and stakeholders throughout the entire value chain to participate in a survey on decarbonizing land transport. The initiative is coordinated in collaboration with SAE BRASIL and the Society of Bioenergy (SBE).

The survey aims to inform the Industry Hearing discussions, a technical White Paper, and a Statement for COP31, focusing on practical and scalable pathways to reduce emissions from land transport between 2026 and 2035, especially in sectors where rapid electrification remains challenging.

The Industry Hearing will take place on September 8–10, 2026, at the Instituto Agronômico de Campinas, bringing together international experts to discuss realistic, evidence-based, and globally relevant pathways for transport decarbonization. Further details will be announced soon.

The survey can be accessed here:

<https://task39.ieabioenergy.com/industry-hearing-on-biofuels-for-decarbonization-of-land-transport-call-for-experts-and-stakeholders/>

EU Commission and E20: higher share of bioethanol in petrol considered

In a letter to three German MEPs, EC president Ursula von der Leyen confirmed that the EU should consider to allow a higher share of bioethanol in petrol. She particularly mentioned E20, a blend that contains up to 20 % renewable ethanol. Such an increased amount would support EU's efforts to decarbonize the transport sector but could also boost domestic renewable ethanol industry and agricultural economy. Further, the energy dependency from foreign oil could be decreased.

This comes just as the Commission released its AccelerateEU communication aimed at assuring European energy security and reducing dependence on foreign oil, in which it also calls for increased domestic EU production of sustainable biofuels.

These efforts are in line with similar endeavors in Asia, namely Thailand and India.

Thailand's ethanol producers are increasing output to meet rising demand for gasohol E20, a fuel containing 20% ethanol, as the government promotes it to reduce dependence on imported oil. The push comes amid global crude oil volatility and concerns over shipping disruptions through the Strait of Hormuz. Officials aim to make E20 the country's primary fuel by keeping its retail price lower than gasohol 91 and 95, which contain only 10% ethanol.

After making E20 fuel (petrol with a 20 percent ethanol blend) mandatory across the country, the government has notified new standards for even higher ethanol blends. The notification, published by the Bureau of Indian Standards (BIS) in the Gazette of India, listed technical and quality parameters for E22, E25, E27 and E30 fuels.

Source:

<https://www.epure.org/press-release/the-eu-and-e20-european-commission-confirms-important-role-of-higher-ethanol-blends-in-de-fossilising-road-transport-securing-energy-supply/>

https://energy.ec.europa.eu/document/download/7fac9eea-5717-4182-a368-bd68c427ff4c_en?filename=Communication.pdf

<https://www.autocarindia.com/industry/government-notifies-standards-for-petrol-blends-beyond-e20-439772>

<https://www.bangkokpost.com/business/general/3220415/ethanol-output-cranked-up-to-meet-e20-demand>

EU to Accelerate Revision of Green Hydrogen (RFNBO) Rules

The European Commission has announced an accelerated review of the RFNBO criteria for renewable hydrogen under its "AccelerateEU" initiative, aiming to speed up market deployment.

The planned changes would ease key production requirements, including additionality rules, temporal and geographical correlation of renewable electricity, and emissions accounting methodologies.

The revision is driven by slower-than-expected market growth and is intended to unlock investment and scale-up of both green hydrogen and synthetic fuels for aviation and maritime sectors.

Source:

<https://www.hydronews.it/en/acceleratedeu-in-the-official-version-the-commission-confirms-the-immediate-revision-of-the-criteria-for-the-production-of-hydrogen-rfnbo/>

Italy formally enshrines EU renewable hydrogen targets under RED III

Italy has officially transposed the EU Renewable Energy Directive III (RED III) into national law, thereby reinstating binding RFNBO and renewable hydrogen targets that had been temporarily removed in earlier drafts.

The final decree confirms mandatory targets for the use of renewable fuels of non-biological origin (including green hydrogen) in both industry and transport, aligning national law directly with EU requirements. The regulation entered into force in February 2026 and resolves earlier uncertainty linked to funding mechanisms and ETS revenue allocation.

A key feature of the decree is the explicit linkage between ETS revenues and hydrogen support schemes, providing a dedicated financing framework for scaling renewable hydrogen deployment.

Source:

<https://observatory.clean-hydrogen.europa.eu/media/news/italy-locks-eu-green-hydrogen-targets-law-red-iii-decree-enters-force?>

Germany Tightens GHG Quota: Transport Decarbonisation Target Raised to 65% by 2040

On 23 April 2026, the German Bundestag adopted the Second Act to Further Develop the Greenhouse Gas Reduction Quota (THG-Quote), significantly tightening the national framework for decarbonising the transport sector.

The revised legislation increases the long-term reduction trajectory to 65% greenhouse gas savings in transport by 2040, exceeding previous draft levels. It also strengthens sub-quotas for advanced renewable fuels, including renewable electricity in transport,

hydrogen, and sustainable biofuels, while aligning the system more closely with EU RED III requirements.

The reform further consolidates the role of the THG-Quota as a market-based compliance instrument, with increased demand expected for emission certificates and low-carbon fuel credits across the transport value chain.

Across Europe, several countries have recently adjusted their transport decarbonisation frameworks in line with the implementation of EU RED III, focusing on higher renewable fuel obligations and stricter emissions accounting.

France has tightened its transport renewable energy obligation (TIRUERT), placing greater emphasis on electrification and hydrogen while restricting certain biofuel crediting pathways. The Netherlands has strengthened its renewable transport fuel mandate, increasing CO₂ reduction requirements and reinforcing support for advanced biofuels and RFNBOs. Sweden has partially reversed earlier relaxations of its fuel GHG reduction obligation, signalling a return to stricter medium-term climate targets.

In contrast, Germany has adopted a significantly more far-reaching reform of its THG quota system (April 2026), extending the long-term reduction trajectory to around 65% by 2040 and further integrating renewable electricity-based fuels, hydrogen, and advanced biofuels into a market-based crediting system.

Source:

<https://renewablesnow.com/news/german-bundestag-approves-ghg-quota-rise-to-65-percent-by-2040-1293687/>
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Overview of Japan's Sustainable Fuels Policy

Japan's 2026 sustainable fuels policy outlines a multi-pathway strategy to decarbonize transport through expanded use of bioethanol, sustainable aviation fuel (SAF), and synthetic fuels, alongside electrification and hydrogen. The government targets E10 by 2030 and E20 by 2040, supported by pilot programs and infrastructure upgrades. SAF is positioned as the primary driver of aviation decarbonization, backed by major subsidies, tax incentives, and new regulatory requirements for fuel suppliers and airlines. Japan is also advancing early commercialization of e-fuels through demonstration projects linked to CCUS.

Source:

https://www.pecj.or.jp/wp-content/uploads/2026/05/JPECFForum_2026_program_001.pdf?utm_source=copilot.com

Indonesia keeps 2026 biodiesel quota flat, raising doubts over B50 target

Indonesia has set its biodiesel production quota for 2026 at 15.646 billion liters, largely unchanged from 2025. The quota reflects the 2025 target of 15.62 billion

liters under the current biodiesel blending mandate of 40% or B40 program and has raised questions from traders and analysts about Indonesia's ability to meet its ambitious B50 goal set for 2026, as outlined in government and presidential announcements.

Source:

<https://www.spglobal.com/energy/en/news-research/latest-news/agriculture/122325-indonesia-keeps-2026-biodiesel-quota-flat-raising-doubts-over-b50-target>

Higher biodiesel blend pushed to ease oil price crunch in the Philippines

The Philippines' National Sectoral Committee (NSC) on Coconut has approved a manifesto supporting the full implementation of Republic Act No. 9367, or the Biofuels Act of 2006, and an immediate transition to a 5-percent biodiesel blend. According to the committee, raising the coconut component in diesel would reduce the country's dependence on imported fuel and provide a stable market for millions of Filipino coconut farmers.

Source:

<https://newsinfo.inquirer.net/2195815/higher-biodiesel-blend-pushed-to-ease-oil-price-crunch>

China biodiesel market set for takeoff with 3.65 mln t/y of new capacity in 2026

Propelled by the EU's binding blending mandate and domestic pilot policies, China's biodiesel and SAF market is poised for a surge in both supply and demand in 2026. A wave of new projects, totaling 3.65 million t/y in annual capacity, is set to come online, marking a pivotal shift toward higher-value aviation fuel production.

Source:

<https://www.mysteel.net/news/5109318>

Vietnam to officially switch to biofuels from June 1, 2026

Vietnam will officially transition to the use of E5 and E10 biofuels from June 1, 2026 in line with a roadmap prepared over many years by the Government and relevant ministries and sectors. The rollout is said to be ready in terms of legal framework, technical infrastructure and consensus among the business community, supporting the country's goals of sustainable development and environmental protection.

Source:

<https://en.vietnamplus.vn/vietnam-to-officially-switch-to-biofuels-from-june-1-2026-post336137.vnp>

SPOTLIGHT HYDROGEN

Toyota and Hyroad to Deploy Fuel Cell Trucks in California

Toyota and Hyroad Energy announced plans to deploy 40 hydrogen fuel cell Class 8 commercial trucks in

California. Hyroad will provide the trucks, maintenance, data and software services to support Toyota's logistics operations.

In 2025, Hyroad acquired 117 hydrogen fuel cell trucks, spare parts, and software platforms from Nikola's bankruptcy. Toyota will supply hydrogen fuel through its own refueling infrastructure, currently being developed in Ontario, California. The fuel cell trucks will take about 15-20 minutes to fill and have a driving range of up to 500 miles.

Source:

<https://pressroom.toyota.com/toyota-announces-strategic-collaboration-with-hyroad-to-deploy-hydrogen-fuel-cell-trucks/>

Hyundai Deploys First Fuel Cell Truck Fleet in South America

Hyundai announced the deployment of eight XCIENT Fuel Cell Class 8 heavy-duty trucks in Uruguay, marking South America's first-ever fleet operation of hydrogen fuel cell heavy-duty trucks. The trucks utilize two 90 kW fuel cell stacks and a 350 kW electric motor. The trucks have 68 kg of hydrogen capacity and a 72kWh battery pack, providing up to 450 miles of range. The trucks are part of the Kahirós Project, a local initiative to decarbonize timber logistics through the use of green hydrogen. The project includes a 4.8 MW solar park and the construction of an electrolysis plant capable of generating 77 tons of green hydrogen annually, with operations planned to begin in November 2026.

Source:

<https://fuelcellworks.com/2026/03/20/fuel-cells/hyundai-motor-introduces-xcient-fuel-cell-truck-fleet-in-south-america-to-drive-zero-tailpipe-emissions-logistics-in-uruguay>

SPOTLIGHT AVIATION

Mexico Launches SAF Feasibility Study

Mexico announced a feasibility study aimed at identifying the country's production capacity, investment requirements, and regulatory challenges for developing a domestic SAF industry. The study is led by the International Civil Aviation Organization (ICAO), who has already delivered feasibility studies for Chile and Peru and is developing studies for Argentina, Costa Rica and Panama.

Mexico has been identified as a potential SAF production hub because of its agricultural capacity, availability of organic waste, and geographic position within North American and Latin American air routes. Supply and cost are still major issues. Global SAF production reached 1.9 million tonnes in 2025, equal to about 0.6% of total jet fuel consumption. Industry estimates indicate SAF prices could remain two to five times higher than conventional jet fuel through 2026, depending on region and incentive structures.

Source:

<https://mexicobusiness.news/aerospace/news/mexico-launches-saf-feasibility-study-icao-support>

Malaysia opens country's first commercial SAF plant in Johor

Malaysia has opened its first commercial-scale Sustainable Aviation Fuel (SAF) plant in Tanjung Langsat, Johor, marking a major milestone in the country's aviation decarbonisation efforts. The facility has a licensed annual capacity of 350,000 tonnes and will produce SAF, renewable diesel, and other advanced bio-based products for both domestic use and export.

Source:

<https://www.malaymail.com/news/malaysia/2026/01/26/malaysia-opens-countrys-first-commercial-saf-plant-in-johor-marking-major-step-in-aviation-decarbonisation/206894>

Switzerland aligns with EU SAF mandate under ReFuelEU Aviation

Switzerland will fully align its aviation fuel regulation with the EU ReFuelEU Aviation framework from 2026, despite not being an EU member.

The move introduces binding requirements for sustainable aviation fuel (SAF) blending at Swiss airports, mirroring EU rules on minimum SAF shares and long-term decarbonisation targets for aviation fuel supply.

The regulatory alignment ensures that airlines operating in Switzerland face equivalent SAF obligations as in the EU market, particularly at major hubs such as Zurich and Geneva.

Source:

https://www.bazl.admin.ch/en/airports?utm_source=chatgpt.com

Plans for production of e-SAF in the German City of Schwedt

High-ranking German politicians such as Federal Minister for Economic Affairs Katherina Reiche presented the funding notice for the "Brandenburg eSAF" project at the PCK refinery site. With €350 million it is Europe's largest public funding for a Power-to-Liquid project.

ENERTRAG and ZAFFRA (a Topsoe/Sasol joint venture) are constructing a facility to produce over 30,000 tons of eSAF annually from 2030, covering ~25% of Germany's ReFuelEU obligation. Green hydrogen (from regional renewables) and biogenic CO₂ (from LEIPA) are converted via Fischer-Tropsch synthesis into climate-neutral aviation fuel (>90% CO₂ reduction). Hydrogen supply is secured through the Gascade pipeline network and on-site electrolysis.

The project will create 150 permanent and 1,500 construction jobs, enhance energy sovereignty, and set a benchmark for Europe's eSAF industry. The final

investment decision is targeted for late 2027, with production starting in 2030.

Source:

<https://enertrag.com/news-and-press/press-releases/2026/brandenburg-esaf-federal-minister-for-economic-affairs-reiche-presents-a-grant-notification-for-350-million-for-germany-s-largest-plant-for-the-p>

EU SAF mandate under debate

European airlines, represented by industry associations such as Airlines for Europe (A4E), are increasing pressure on the EU regulatory framework for sustainable aviation fuels (SAF), particularly under the ReFuelEU Aviation initiative. The sector is calling for a softening or greater flexibility of mandatory SAF blending quotas, especially for eSAF from 2030 onwards.

The main argument is an expected structural supply gap in eSAF production by 2030, combined with high production costs and limited industrial-scale capacity. Airlines warn that strict quota enforcement could lead to significant financial burdens and competitiveness risks, given the anticipated shortage of synthetic aviation fuels.

Policy makers and parts of the energy industry, however, emphasize that stable and binding targets are essential to ensure investment security and to enable the scale-up of eSAF production capacity. Any dilution of the mandate could slow down infrastructure deployment and delay decarbonisation of aviation.

Overall, the debate reflects a fundamental tension between regulatory decarbonisation ambition in aviation and the near-term industrial scalability of SAF supply chains, particularly for synthetic fuels before 2030.

Source:

<https://www.reuters.com/sustainability/climate-energy/iata-backs-call-by-european-airlines-soften-green-fuel-mandate-2025-03-27/>

EU Commission welcomes the launch of the eSAF Early Movers Coalition

In December 2025, Austria, Finland, France, Germany, Luxembourg, the Netherlands, Spain and Portugal announce the official launch of the eSAF Early Movers Coalition. This Coalition is a key initiative of the Sustainable Transport Investment Plan, presented by the European Commission on 5 November 2025. It reflects the urgent need to accelerate the decarbonisation of aviation and highlights the crucial role of synthetic Sustainable Aviation Fuels.

The eSAF Early Movers Coalition brings together Member States committed to scaling up eSAF production. Coalition members will work jointly to share best practices and insights and pull together knowledge, and endeavour to financially contribute to the organisation of double-sided auctions for eSAF.

Source:

https://transport.ec.europa.eu/news-events/news/eu-launches-early-movers-coalition-accelerate-sustainable-aviation-fuel-uptake-2025-12-04_en?utm_source=chatgpt.com

SPOTLIGHT SHIPPING

FuelEU Maritime 2025: Bio-LNG and Credit Trading Redefine Compliance Economics

With FuelEU Maritime entering into force in 2025, the greenhouse gas intensity of maritime energy use is now regulated for the first time (–2% vs. 2020 baseline). Shipowners must actively manage compliance or face substantial penalties.

According to GLC Energy, bio-LNG is currently the most effective short-term solution, as it is a drop-in fuel and can achieve very low lifecycle emissions—enabling the generation of tradable compliance surpluses.

At the same time, a new emissions credit market is emerging, where banking, pooling, and trading become key levers.

Thus, FuelEU Maritime turns fuel strategy and emissions trading into core economic drivers in shipping operations.

Source:

https://glc-energy.com/fueleu-maritime-compliance-2025-bio-lng-credit-strategy/?utm_source=chatgpt.com

Hapag-Lloyd and NCL secure e-fuel deployment from 2027

Hapag-Lloyd and North Sea Container Line (NCL) have won a ZEMBA-backed tender enabling the use of hydrogen-based e-fuels in commercial shipping starting in 2027.

Hapag-Lloyd will operate e-methanol-powered deep-sea container vessels, while NCL will introduce the first e-ammonia-powered container ship in regional service. The fuels are expected to deliver up to ~90% lifecycle CO₂ reductions compared to conventional marine fuels.

The initiative aggregates demand from major corporates (e.g. retailers and consumer brands) to create an initial scalable market for e-fuels in shipping.

Source:

<https://shippingtelegraph.com/container-news/hapag-lloyd-ncl-win-tender-to-power-ships-with-e-fuels-from-2027/>

Methanol Retrofit: Stralsund Project Targets 20% CO₂ Reduction in Existing Ship Engines

A research team at Hochschule Stralsund has developed a retrofit fuel module (“BoosterMeth”) enabling conventional marine diesel engines to run on diesel-methanol blends.

The system produces a stable emulsion of gasoil and methanol, allowing up to 30% methanol blending without recertification and delivering ~20% CO₂ reduction.

Crucially, the approach targets existing fleets, avoiding costly engine replacements or speed reductions (slow steaming), both of which face operational and economic constraints.

With tightening carbon regulations (e.g. CII and FuelEU Maritime), the solution offers a cost-efficient compliance pathway by enabling the use of renewable alcohol fuels in legacy engines.

Source:

<https://idw-online.de/en/news869618>

Idemitsu Rolls Out Certified Bio-Blended Marine Fuel Supply Chain in Japan

Idemitsu Kosan has launched Japan's first fully certified bio-blended marine fuel supply chain, marking a major step in the country's maritime decarbonization efforts. Idemitsu has already begun supplying major clients and plans to deliver 5,000 tonnes of bio-blended marine fuel by March 2026, covering both domestic and international vessel segments. The fuel provides about a 20% CO₂ reduction without requiring engine modifications.

Source:

<https://bunkermarket.com/idemitsu-rolls-out-certified-bio-blended-marine-fuel-supply-chain-in-japan/>

AMF NEWS

AMF ExCo 71

From 23-25 June the 71st AMF ExCo Meeting took place in Copenhagen, Denmark. Representatives of all 16 AMF Contracting Parties participated in the meeting to discuss the progress of ongoing work and plan for future AMF work.

Task 28: Information Service and AMF Website

Besides the newsletter and social media posts, Task 28 maintains the "Fuel Info" section of the AMF website, that summarizes end-use relevant information on all types of alternative motor fuels and remains the most-visited part of the website.

Link:

https://iea-amf.org/content/fuel_information/fuel_info_home

Task 65: Powertrain Options for Non-Road Mobile Machinery

Task 65 investigates which kind of powertrain and energy options offer the best fit for each specific non-road application without adversely affecting the productivity, usability, and security of supply with energy. The Task has recently contributed to a position paper on H2 machine regulatory compliance.

Link to the position paper:

<https://vdbum.de/vdbum-arbeitskreise/wasserstoff-im-schwerverkehr/>

Task 66: Recent Progress in SAF Research

Task 66 conducts a series of online workshops to exchange information on recent developments in sustainable aviation fuels. The last two webinars focused on "Status and developments of engine technology in aircraft using SAF" and "Recommendations of new policy measures to further promote SAF production and utilization". Presentations and recordings are available on the Task 66 website.

Link: [https://iea-](https://iea-amf.org/content/events/web_seminars/webinars_task66)

[amf.org/content/events/web_seminars/webinars_task66](https://iea-amf.org/content/events/web_seminars/webinars_task66)

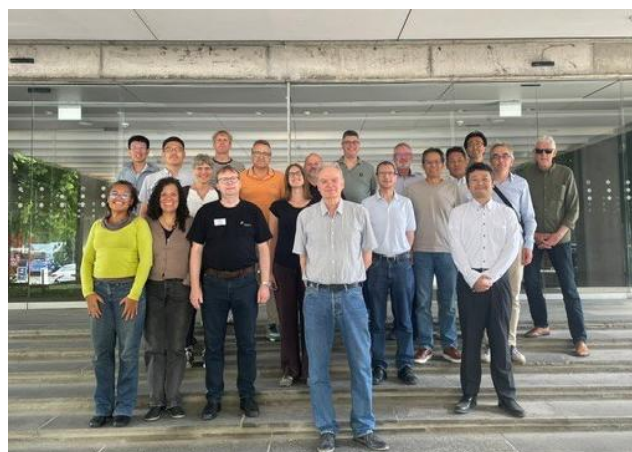
Task 67: Exhaust Aftertreatment Systems (EATS)

Task 67 explores how exhaust aftertreatment systems need to work to ensure clean and efficient combustion of alternative motor fuels. The Task exchanges information on recent research, e.g. on the use of methanol or ammonia in large engines.

Link: https://iea-amf.org/content/projects/map_projects/67

Further AMF work

Task 68 "End-use Aspects of Hydrogen Application in Transportation" will investigate the combustion of hydrogen in engines, and a new Task "Alternative Shipping Fuels" will come into operation around September this year and look into maritime fuels.



During the ExCo 71 meeting, a new Task on "Advanced Motor Fuel Solutions for Remote Areas" was kicked off to investigate challenges of providing transport energy to remote areas in countries such as Brazil, Canada, China, India and Sweden.

Plans for future work include a collaboration with the Energy Storage TCP on the **role of ammonia in the energy sector**.

Next ExCo meetings will be held from 27-30 October 2026 online and from 15-17 June 2027 in Madrid, Spain.

AMF Website: <https://iea-amf.org/>

PUBLICATIONS

KIT study: full substitution of fossil fuels in EU road transport theoretically feasible

A study by the Karlsruhe Institute of Technology (KIT) concludes that fossil gasoline and diesel in European road transport could, in principle, be fully replaced by renewable liquid fuels (reFuels) in the long term. A substantial share could already be substituted by 2030, with near-complete replacement theoretically possible by 2040.

Source:

<https://publikationen.bibliothek.kit.edu/1000191586>

Electrification of Public Transport in Latin America Gains Momentum

Several reports, case studies and simulations have been published recently. They are all addressing the current development and future scenarios of the electrification of public transport in Latin America. Namely, electric busses are in the focus of these reports and studies:

The International Council on Clean Transportation (ICCT) published a report on the electric bus market in Latin America in 2025.

Source:

<https://theicct.org/publication/electric-bus-market-in-latin-america-2025/>

A study for the City of Valparaíso in Chile documents electric bus simulations, estimating the power required for charging terminals, determining the number of electric buses needed, and analyzing the battery sizes necessary to ensure efficient system operation.

Source:

<https://theicct.org/publication/simulacion-para-el-dimensionamiento-preliminar-de-flota-y-demanda-de-energia-del-sistema-de-buses-electricos-en-gran-valparaiso-chile-mar26/>

For the City of São Paulo, a case study uses the city's public bus network to investigate charging infrastructure requirements for battery electric bus depots.

Source:

<https://theicct.org/publication/charging-infrastructure-for-battery-electric-bus-operations-sao-paulo-apr26/>

Contribution of biofuels and bioenergy to the EU's sustainable energy transition

This study uses the POTENcIA model (a hybrid partial equilibrium tool by the EU Joint Research Centre) to assess the role of biofuels and bioenergy in the EU's transition to a sustainable energy system under the European Green Deal, projecting pathways to climate neutrality by 2050. It finds that EU biofuel consumption rises from 24 Mtoe in 2025 to 81 Mtoe in 2050, with advanced biofuels (e.g., biokerosene for aviation and

biomethanol for maritime) gaining prominence post-2030, while first-generation biofuels from food/feed crops decline; bioenergy remains key for electricity/heat, and BECCS (bioenergy with carbon capture and storage) grows in importance by 2050, offering insights for policy, infrastructure, and sustainable biomass deployment.

Source:

<https://www.sciencedirect.com/science/article/pii/S277242712600080X>

EU's 2025 Status Report on RFNBOs

Renewable fuels of non-biological origin (RFNBOs) could offer over 70% GHG savings compared to fossil fuels and leveraging existing infrastructure to decarbonize hard-to-electrify sectors like transport and industry. While early commercial projects (TRL 6–8) are already operational in Germany and Denmark, scalability is limited by renewable hydrogen supply constraints, low carbon capture adoption, and high costs. However, the EU's RED II, ReFuelEU Aviation, FuelEU Maritime, and Net-Zero Industry Act provide a robust policy framework to drive large-scale production by 2050, with the EU leading in R&D and demonstration while deploying support mechanisms to accelerate industry growth.

Source:

<https://publications.jrc.ec.europa.eu/repository/handle/JRC144471>

Advanced biofuels as a key pathway for carbon-neutral diesel engines

Diesel engines remain valued for their reliability, durability, and fuel efficiency, but their future depends on reducing emissions. This study explores using straight vegetable oils (SVOs) blended with low-viscosity, low-octane (LVLC) oxygenated solvents as advanced biofuels to meet climate targets like the EU's "Fit for 55" and 2050 carbon neutrality goals, while addressing technical and economic challenges in transport.

Source: <https://www.mdpi.com/1996-1073/19/8/1938>

ASEAN Poised to Produce 8.5 million Barrels of SAF Daily by 2050

With the pressing need to decarbonise aviation, ASEAN economies could generate as much as 8.5 million barrels per day of Sustainable Aviation Fuel (SAF) by 2050, according to the ASEAN SAF 2050 Outlook report. The report provides a regional supply chain assessment for 2030, 2040, and 2050, examining potential SAF demand and supply scenarios across Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam, as well as import markets including Japan, Singapore, and the Republic of Korea (ROK).

Source:

<https://asean.org/asean-poised-to-produce-8-5-million-barrels-of-sustainable-aviation-fuel-daily-by-2050/>

Annual Report IEA Bioenergy

The IEA Bioenergy Annual Report 2025 includes a special feature article on 'BECCUS and Carbon Management: Status and Prospects' prepared by Task 40 (Biobased Deployment & Carbon Management). It also features a report from the Executive Committee and a detailed progress report on each Task. The document comprises key information such as Task participation, Contracting Parties, budget tables and lists of reports and papers produced by the TCP.

Source:

<https://www.ieabioenergy.com/blog/publications/iea-bioenergy-annual-report-2025/>

TCP Hydrogen Annual Report 2025

The IEA Hydrogen TCP 2025 Annual Report presents the latest research advancements, international collaborations, and strategic analyses on hydrogen technologies. It provides data, facts, and outlooks for the global energy transition.

Source:

<https://drive.google.com/file/d/1TRlx7wwb-slhZZ3urWfZg5guRm5IEbcP/view?usp=sharing>

EVENTS

SAF APAC Summit 2026

8 – 9 July 2026, Melbourne, Australia

<https://www.safapacsummit.com/>

New Mobility Congress

23 – 25 September 2026, Katowice, Poland

<https://kongresnowejmobilnosci.pl/en/homepage/>

6th Biofuels Forum

23 – 24 September 2026, Brussels, Belgium

<https://inventu.eu/6th-biofuels-forum/>

3rd Euro-Global Summit on Biofuels and Bioenergy

12 – 13 October 2026, London, UK

<https://biofuels.c2pforum.com/>

Electric & Hybrid Vehicle Technology Expo

12-15 October 2026, Detroit, Michigan, USA

<https://evtechexpo.com/>

9th Rostock Large Engine Symposium

13 – 14 October 2026, Rostock, Germany

<https://rgmt.de/>

JSAE Annual Congress 2026

14 – 16 October 2026, Sapporo, Japan

<https://en.jsae.or.jp/taikai/2026aki/outline/>

Argus Biofuels Europe Conference & Exhibition

20 – 22 October, London, UK

<https://www.argusmedia.com/en/events/conferences/biofuels-europe-conference-and-exhibition>

Hydrogen Technology World Expo & Carbon Capture Technology World Expo

20 – 22 October 2026, Hamburg, Germany

<https://www.hydrogen-worldexpo.com/>

European Hydrogen Week 2026

26 – 30 October 2026, Brussels, Belgium

<https://euhydrogenweek.eu/>

Future of Biofuels 2026

28 – 29 October 2026, Gothenburg, Sweden

<https://fortesmedia.com/future-of-biofuels-2026,4,en,2,1,118.html>

Future of Biogas Europe 2026

25 – 26 November 2026, Amsterdam, The Netherlands

<https://www.wplgroup.com/aci/event/future-biogas-europe/>

RNG Conference

7-10 December 2026, Dana Point, California, USA

<https://www.rngcoalition.com/rng-conference/>

24th International Conference on Renewable Mobility

18 – 19 January 2027, Berlin, Germany

<https://www.fuels-of-the-future.com/en/conference/kongress>

Transportation Research Board Annual Meeting

10-14 January 2027, Washington, D.C., USA

<https://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>

Clean Fuels Conference

1-4, February 2027, Phoenix, Arizona, USA

<https://www.cleanfuelsconference.org/>

Renewable Fuels Association National Ethanol Conference

15-17 February 2027, Las Vegas, Nevada, USA

<https://www.nationalethanolconference.com/>

IMPRINT

The Advanced Motor Fuels Technology Collaboration Programme (AMF TCP) is one of the International Energy Agency's (IEA) transportation related Technology Collaboration Programmes. These are multilateral technology initiatives that encourage technology-related activities that support energy security, economic growth and environmental protection.

AMF provides an international platform for co- operation to promote cleaner and more energy efficient fuels and vehicle technologies. This newsletter contains news articles on research, development and demonstration of advanced motor fuels, information about related policies, links to AMF projects, and an overview over publications and events.

The newsletter is prepared based on contributions from Agency for Renewable Sources (FNR), Shinichi GOTO, AIST, and Andy BURNHAM, ANL. It is edited by Jan Schmidt, FNR. The Newsletter is available online at: www.iea-amf.org.

AMF welcomes interested parties to make contact and to become members of the AMF family. If you wish to get in touch please contact the AMF Secretary, the AMF ExCo Chair or your national AMF Delegate.

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