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# DEMONSTRATION / IMPLEMENTATION / MARKETS

# First U.S. Hydrogen Hub Launches

The U.S. Department of Energy and Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) signed a \$12.6 billion agreement to build a renewable Hydrogen Hub in California, including up to \$1.2 billion in federal funding. This was the first of seven Hydrogen Hubs throughout the U.S. to officially sign an agreement with the DOE.

The ARCHES hub will facilitate a network of clean, renewable hydrogen production sites with a goal of decarbonizing public transportation, heavy-duty trucking and port operations by 2 million metric tons per year.

Facilities and equipment to be decarbonized include:

- Three large ports with over 200 pieces of cargo-handling equipment
- 5,000-plus fuel cell electric trucks
- 1,000-plus fuel cell electric buses
- One marine vessel
- Turbines and stationary fuel cells
- 60 heavy-duty fueling stations
- 165 miles of open-access pipelines.

### Source:

https://business.ca.gov/california-launches-world-leading-hydrogen-hub/

# \$500 Million for Zero Emission School Buses in California

California is launching a funding program of \$500 million to deploy 1,000 zero-emission school buses and needed infrastructure. Awardees can receive up to \$375,000 to replace internal combustion engine school buses with zero-emission vehicles, in addition to awards up to \$95,000 per school bus to purchase and install associated infrastructure.

The state is requiring all school bus purchases to be zero-emission technology by 2035, with an extension until 2040 for school districts in rural communities. As of 2024, California has provided more than \$1.3 billion in incentives to school districts which has funded more than 2,300 zero-emission school buses, of which 1,100 are already in use.

### Source.

https://www.greencarcongress.com/2024/08/20240828-zesbi.html

# \$300 million for U.S. CNG and Hydrogen Transit Buses

The Transport Project reported that over \$105 million to compressed natural gas transit bus projects by the U.S. Federal Transit Administration for fiscal year 2024. In addition, \$238 million went to transit agencies for hydrogen bus and related infrastructure projects. The funding was made available through the Low- and No-Emission Grant Award and Grants for Buses and Bus Facilities competitive programs.

#### Source:

https://transportproject.org/2024/07/18/over-105-million-infederal-cng-transit-investments-made/

# \$76 million for Canadian Electric Buses and Chargers

The Canadian government is investing \$76 million for the York Region Transit plan to electrify its bus fleet, bringing the total project budget to \$389 million. York Region Transit will purchase 180 zero-emission transit buses and charging infrastructure, as well as update its facilities. The Canadian government funding is coming from the Zero Emission Transit Fund, which coordinated with the Canada Infrastructure Bank's Zero-Emission Buses Initiative already provided \$136-million loan to the project.

### Source:

https://electricautonomy.ca/automakers/electric-buses/2024-07-10/york-region-transit-electric-buses-76-million/

# BYD and Uber Partner to Deploy 100,000 EVs Globally

Uber and BYD announced a multi-year partnership to bring100,000 new electric vehicles to the ride-hailing platform globally. The partnership will start in Europe and Latin America and then expand to markets in the Middle East, Canada, Australia, and New Zealand. Uber and BYD will offer drivers discounts on vehicle maintenance, charging, financing and leasing, depending on the market, to support the transition to electric vehicles.

### Source.

https://www.reuters.com/technology/uber-byd-partner-bring-evs-ride-hailing-platform-globally-2024-07-31/

# Japan's first synthetic fuel plant starts production

A test facility in Yokohama has become the first plant in Japan to make eco-friendly synthetic fuel from raw materials. Such carbon-neutral fuel, if eventually produced on a commercial scale, could replace gasoline and other fossil fuels. Major Japanese oil wholesaler Eneos built the facility at its research hub in Yokohama and began operating it earlier this month. Its process involves generating hydrogen through water electrolysis, and combining it with carbon dioxide from the atmosphere and factory emissions. The company



plans to produce about 160 liters of synthetic fuel a day for the time being. The liquid fuel is virtually carbon-neutral, and can be used in cars and aircraft powered by conventional engines. The Japanese government is aiming for commercialization of synthetic fuel by the first half of the next decade.

#### Source:

https://www3.nhk.or.jp/nhkworld/en/news/20240930\_B02/

# Japan: Achievement of the world's highest performance electrolytic synthesis

Idemitsu Kosan, University of Tokyo, Osaka University, National Institute of Advanced Industrial Science and Technology (AIST) have achieved the world's highest performance in their joint research development efforts in the continuous electrolytic synthesis of ammonia proceeding at room temperature and normal pressure from nitrogen and water, substances that exist in abundance in the air. This innovative technology will replace the current production method (Haber-Bosch process), which has a history of more than 100 years, and will give momentum to the realization of a carbon-free ammonia production process.

#### Source:

https://www.idemitsu.com/jp/news/2024/240704\_en.pdf

# Plans for hydrogen-based SAF facility in Sweden cancelled

Uniper and Sasol EcoFT have officially cancelled their collaborative effort to develop a 200 MW, hydrogen-based sustainable aviation fuel (SAF) facility in Sweden, citing slow market evolution and insufficient EU regulatory frameworks.

### Source:

https://fuelcellsworks.com/2024/10/10/energy-policy/uniper-terminates-200-mw-hydrogen-project-in-sweden-due-to-mar-ket-and-regulatory-challenges

# Construction begins on Technology Platform for Power-to-Liquid Fuels (TPP)

In Leuna, Germany, the German Aerospace Centre (DLR) is building the largest ever research facility for the production of e-fuels.

The Technology Platform for Power-to-Liquid Fuels (TPP) will be used to optimise e-fuels and further develop technologies and processes for industrial production.

Every year, the platform will be able to produce up to 2500 tonnes of fuel. DLR has received €130 million in funding for the construction of the facility.

Focus: Aviation, energy, climate-compatible flying, electrofuels, PtLs, e-fuels

### Source:

https://www.dlr.de/en/latest/news/2024/construction-begins-on-technology-platform-for-power-to-liquid-fuels-tpp

# POLICY / LEGISLATION / MANDATES / STANDARDS

### **Brazil's Future Fuel Law**

Brazil's president Lula signed the "Future Fuel" law on 8 Oct 2024, which includes a series of goals and incentives to enhance traditional biofuels such as ethanol and biodiesel, while also fostering innovation in emerging fields such as sustainable aviation fuel, green diesel, biomethane, and carbon capture.

The law increases the blend of anhydrous ethanol in gasoline to 27%, with flexibility to reduce it to 22% or raise it to 35%. Similarly, the blend of biodiesel with fossil diesel could increase to 20% by 2030, with an incremental rise of 1% per year starting in 2025. The law will create the National Sustainable Aviation Fuel Program, which will set emission reduction targets for the aviation industry. Starting in 2027, airlines will be required to reduce emissions by 1%, increasing to 10% by 2037. Brazil plans to produce SAFs using various feedstocks such as agricultural residues, animal fat, vegetable oils, and sugarcane or corn-based ethanol.

### Source:

https://advancedbiofuelsusa.info/president-lula-signs-the-future-fuel-law

# Japan, Indonesia, others agree to build sustainable fuel supply chain

Japan, Australia and nine Southeast Asian countries including Indonesia will cooperate in establishing an Asian supply chain geared toward expanding the use of sustainable fuel, their ministers agreed at a meeting in Jakarta on 21 August. According to the agreement, the member countries will draft a road map for developing supply chains for sustainable fuel such as biomass, especially as demand for sustainable aviation fuel (SAF) is expected to grow in the region. The ministers also agreed to share their best practices regarding producing, distributing and retailing cleaner fuel.

### Source:

Japan, Indonesia, others agree to build sustainable fuel supply chain - Nikkei Asia

# Freight Corridor Strategy to Rush Deployment of Zero-Emission Infrastructure

The U.S. has released its National Zero-Emission Freight Corridor Strategy to guide the deployment of zero-emission medium- and heavy-duty vehicle (ZE-MHDV) charging and hydrogen fueling infrastructure from 2024 to 2040. The goal is provide enough refueling access along U.S. freight corridors and at intermodal freight facilities and high-usage ports to achieving the U.S.'s goals of at least 30% ZE-MHDV sales by 2030 and 100% sales by 2040.

The strategy will prioritize infrastructure along key freight corridors and hubs in four phases:



- Establish priority hubs based on freight volumes (2024-2027)
- Connect hubs along critical freight corridors (2027-2030)
- Expand corridor connections initiating network development (2030-2035)
- Achieve national network by linking regional corridors for ubiquitous access (2035-2040)

#### Source:

https://highways.dot.gov/newsroom/biden-harris-administration-releases-first-ever-national-strategy-accelerate-deployment

# Thailand prepares \$93 bln for energy plans to curb carbon emissions

To achieve its carbon reduction targets, Thailand is formulating five major energy plans with a total investment of 2.9 trillion baht (about 93 billion USD). The Thai government announced that it would launch the National Energy Plan (NEP) in September, with a goal of reducing carbon emissions by 220 million tons by the end of 2030. This plan includes five important subplans: Power Development Plan (PDP 2024), Alternative Energy Development Plan (AEDP), Energy Conservation Plan (EEP 2024), Gas Management Plan, and Oil Management Plan.

#### Link:

https://www.reccessary.com/en/news/thailand/thailand-pre-pares-93-billion-usd-for-carbon-reduction-efforts

# **EU Integrated National Energy and Climate Plan (NECP) updates**

The national energy and climate plans (NECPs) were introduced by the Regulation on the governance of the energy union and climate action (EU)2018/1999, agreed as part of the Clean energy for all Europeans package which was adopted in 2019. The national plans outline how the EU countries intend to address the 5 dimensions of the energy union:

- decarbonisation
- energy efficiency
- energy security
- internal energy market
- research, innovation and competitiveness

This approach requires a coordination of purpose across all government departments and it provides a level of planning that will ease public and private investment. A number of EU countries have submitted their latest updates in 2024.

### Source:

https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climategovernance-and-reporting/national-energy-and-climateplans\_en?prefLang=de

# EU biofuels industry: Union Database not yet operational

The Union Database for Biofuels (UDB) is an EU-wide traceability system for sustainable renewable fuels and important for the implementation of the Renewable Energy Directive II. Its main purpose is the traceability of renewable fuels, renewable liquid and gaseous fuels of non-biogenic origin and recycled carbonaceous fuels. A broad alliance of biofuel industry associations refers to a recent letter from 16 EU Member States to stop the implementation process of the Implementing Regulation and thus also the binding deadline for the application of the UDB. Like the Member States, the associations criticise the lack of a decisive legal basis for implementation and refer to technical implementation problems.

#### Links

Press release UFOP: https://www.ufop.de/english/news/bio-fuels-industry-union-database-not-yet-operational/

Press release EU: https://energy.ec.europa.eu/news/eu-da-tabase-biofuels-becomes-operational-2024-01-15\_en

Survey on Implementing Regulation:

https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14297-Renewable-and-recycled-carbon-fuels-extending-the-scope-of-traceability-of-the-EU-database\_en

# **SPOTLIGHT SHIPPING**

# **TotalEnergies Marine Fuels supplies its** first B100 Biofuel Bunker in Singapore

TotalEnergies Marine Fuels supplied its first B100 biofuel bunker on 5 August in Singapore, marking a significant expansion in its low-carbon fuels offer as it supports the decarbonization goals of global shipping. TotalEnergies Marine Fuels used an IMO Type II chemical bunker tanker, MAPLE, owned by Global Energy Group, to transfer 700 metric tons (mt) of the 100% Used Cooking Oil Methyl Ester biofuel to a Pure Car and Truck Carrier (PCTC), Glovis Cosmos, which is owned by Hyundai Glovis.

### Source:

https://marinefuels.totalenergies.com/news/press-release/totalenergies-marine-fuels-supplies-its-first-b100-biofuel-bunker-in-singapore

# SPOTLIGHT AVIATION

# Progress in Commercialization of Biojet/Sustainable Aviation Fuels (SAF)

In the past few years, the production and use of SAF have grown substantially. IATA estimated SAF production reached 300-450 million liters in 2022, a significant increase from the 2021 production of 100 million liters. In addition to the increasing availability of SAF, the number of new facilities that have been announced and are under construction should result in an exponential increase in SAF production by 2030.



As there are specific challenges associated with various pathways, the lipid-derived HEFA-pathway – currently the only fully commercial pathway – will continue to supply the majority of SAF volumes up to 2030. However, alternative technologies, such as gasification with Fischer-Tropsch and alcohol-to-jet, are nearing commercial status. Although several companies are pursuing the power-to-liquids technology for efuels SAF production.

### Source:

https://www.ieabioenergy.com/blog/publications/progress-incommercialization-of-biojet-sustainable-aviation-fuels-saftechnologies-and-policies/

# How Singapore's airport and air traffic management sectors reduce emissions

Civil Aviation Authority of Singapore (CAAS) will work on rolling out a suite of initiatives across three domains – airline, airport and air traffic management – to decarbonise Singapore's aviation sector while supporting its sustainable growth. Under the airline domain, CAAS will require flights departing Singapore to use sustainable aviation fuel from 2026. Passengers can expect to pay an additional levy on their air tickets.

#### Link:

https://www.channelnewsasia.com/singapore/sustainableair-hub-blueprint-how-airport-and-air-traffic-managementsectors-will-reduce-carbon-emissions-4127101

# SPOTLIGHT (PUBLIC) TRANSPORT

# **Greenhouse Gas Emissions Reductions** from Electric Buses in Latin America

Researchers updated methodology used by the E-Bus Radar platform to estimate greenhouse gas emissions avoided with the introduction of battery electric buses (BEBs) in Latin America. By the end of 2023, the platform had mapped 5,068 e-buses of 41 cities in 12 countries. Researchers updated methodology used by the E-Bus Radar to estimate greenhouse gas emissions avoided from internal combustion engine buses with the introduction of BEBs. They quantified emissions of vehicle use, vehicle and battery manufacturing, vehicle maintenance, and fuel and electricity production using country-specific values.

The results show that the life-cycle GHG emissions from battery electric buses are 71%–84% lower than emissions from ICE buses. Although there are variations among countries, the greater energy efficiency of electric motors results in notable GHG reductions in countries with electricity grids with low carbon intensities like Brazil and Colombia, and in those with relatively more fossil fuels in electricity generation like Mexico and Chile. Differences in emissions between

countries for similar bus models are a function of operational characteristics, such as annual distances travelled and energy efficiency.

### Source:

https://theicct.org/publication/quantifying-avoided-ghg-emissions-by-e-buses-in-latin-america-a-simplified-life-cycle-assessment-methodology-aug24/

# 18-Meter Electric Bus Simulation on Routes in Santiago, Chile

This report presents a simulation of the operation of an 18-meter electric bus in Santiago. In 2019, Chile began the process of decarbonizing public transport, by replacing diesel buses with low- or zero-emission technologies. As of 2024, 2,480 battery-electric buses have been deployed, all of which were 12 meters or less. The implementation of 18-meter electric buses in the system is necessary to cover more routes and operations for the goal of decarbonization. Using real world operational data, the researchers simulated operations for two routes with different passenger loads and HVAC operations. They found the average consumption of the electric bus was 1.34 kWh/km on these routes with a 50% passenger load and with the HVAC system running. The results indicate that the bus could operate about 300 km on a single charge.

#### Source:

https://theicct.org/publication/simulacion-de-la-operacion-deun-bus-electrico-de-18-metros-en-rutas-de-santiago-dechile-sept24/

# Decarbonization of Refuse Trucks in São Paulo

The city of São Paulo requires a reduction in emissions of refuse trucks with a 50% reduction in carbon dioxide (CO2) emissions by 2028 and 100% by 2038, compared to 2016. This study analysed the financial and environmental impact of two alternatives already available in the Brazilian market: battery-electric trucks and natural gas-powered trucks (NGV), powered by either fossil natural gas or biomethane. The researchers found that the total costs of ownership for electric and CNG collector trucks are between 25% and 27% higher, respectively, than those of a comparable diesel vehicle under current conditions. However, reductions in financing costs and increased years of operation could make electric trucks financially competitive. Electric trucks and those operating exclusively on biomethane produced from landfills have life cycle emissions 70% and 68% lower than diesel vehicles.

In contrast, a truck powered exclusively by fossilbased natural gas emits 23% more than those powered by diesel, due to lower engine efficiency and fugitive methane emissions throughout the fuel's life cycle.

### Source:

https://theicct.org/publication/descarbonizacao-da-frota-de-coleta-de-residuos-solidos-em-sao-paulo-oct24/



## Electric Bus Pilots in Medellín, Columbia

This report presents the conclusions obtained from the zero-emission bus pilots carried out in Medellín, Columbia. The pilots were found to be valuable as they allowed for the analysis of the number of batteries required, the power of the buses, the design of the bodies and the real costs of operation andmaintenance. In addition, it helps identify the power of the charger required to comply with the bus dispatch schedule. During the 18 day pilots, the buses did not have any technical issues and it was found that they met the necessary power requirements associated with the slope of the terrain. It was also found energy costs were reduced by 30% to 38% for the electric buses as compared to diesel.

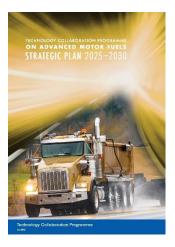
#### Source:

https://theicct.org/publication/pilotos-de-buses-electricos-enel-sistema-de-transporte-colectivo-de-la-ciudad-de-medellinsept24/

# **AMF NEWS**

# **AMF Strategic Work Plan**

Being a Technology Collaboration Programme under the auspices of the International Energy Agency, the AMF TCP has to revise its strategy every five years. Both the AMF Strategic Work Plan 2025-2030 and the End-of-Term Report 2020-2024 have been approved by IEA's Committee on



Energy Research and Technology, and AMF has been granted extension until 2030. The 14 member countries of AMF are pleased to further collaborate on advanced motor fuels that constitute clean and efficient alternatives to current transport fuels used in engines and turbines.

Link: https://iea-amf.org/content/about\_amf/about

# AMF Task 62: Wear in Engines Using Alternative Fuels

After three years of collaborative work, this Task has been finalized recently, and key messages and the final report have been published.

The Task participants Brazil, China, Denmark, Finland and Germany have reviewed engine wear challenges associated with the application of alternative fuels in combustion engines. Fuels investigated include ethanol, methanol, ammonia, DME and hydrogen. The wear problems experienced can be categorized into mechanical issues, chemical issues and interaction

with the lubricant. Careful choices of engine materials and lubricants must be taken to avoid wear.

Link: https://iea-amf.org/content/projects/map\_projects/62

# AMF Task 64: E-fuels and End-use Perspectives

Another AMF Task has been finalized recently. Brazil, China, Denmark, Finland, Germany, Japan, Switzerland and the USA have concluded their information exchange on the production and application of different e-fuels as well as the corresponding regulatory framework and standards. The final results were disseminated through a final report, key messages, and a public webinar, all of which are available on the AMF website. The figure below shows the marketability of various e-fuels in different transport sectors.

	Ships	Planes / Helicopters	Trains	Trucks and busses	Cars / motor cycles
Hydrogen					
Methane					
Methanol					
Ammonia					
Gasoline					
FT Diesel					
Jet fuel (ATJ, FT)					

Link: https://iea-amf.org/content/projects/map\_projects/64

### **AMF ExCo Meetings**

From 8-13 November, 2024, the 68<sup>th</sup> Meeting of the AMF Executive Committee was conducted online. Jesper Schramm (Denmark) was re-elected as Chair, and Debbie Rosenblatt (Canada) and Mitsuharu Oguma (Japan) were elected Vice-Chairs.

Two Tasks were closed (62 and 64, see above), Task 65: Powertrain options for non-road mobile machinery is progressing well, and the new Task on Recent Progress in SAF Research was officially started as Task 66.

Task 66 will conduct a series of online seminars on SAF research topics such as the use of unblended SAF, the influence of processing parameters on SAF properties, monitoring SAF deployment, status of engine technology in aircrafts, and policy recommendations.

Ideas for new AMF work include assessing the application of hydrogen in internal combustion engines, and alternative fuels for the shipping sector.

The next AMF ExCo meeting will be held 26-28 May 2025 in Vienna, Austria, and will most likely include a small seminar on SAF.

In case you are interested in contributing to AMF work, please get in touch with the Secretary: secretariat@iea-amf.org

Link: www.iea-amf.org



# **PUBLICATIONS**

# **European Climate Risk Assessment (EU-CRA)**

The first European Climate Risk Assessment (EU-CRA) identifies 36 climate risks that pose a threat to Europe's energy and food security, ecosystems, infrastructure, water resources, financial stability, and people's health. It shows that many of these risks have already reached critical levels and can become catastrophic without urgent and decisive action. The knowledge in this first-of-its-kind assessment is synthesised to support strategic policymaking

#### Source:

European Environment Agency (EEA) - Publications https://www.eea.europa.eu/publications/european-climaterisk-assessment

# Air pollution in Europe: 2024 reporting status under the NEC Directive

This briefing describes progress made by the EU and its Member States towards reducing emissions of the five main air pollutants regulated under the National Emission reduction Commitments Directive. It assesses Member State performance against emission reduction commitments for 2020-2029, as well as progress towards meeting more ambitious reduction commitments that will apply from 2030 onwards. It also highlights trends for a broader range of air pollutants and their sources in Europe. The briefing is based on the latest data reported by Member States in 2024 for their 2022 emissions.

### Source:

European Environment Agency (EEA) - Publications https://www.eea.europa.eu/publications/national-emission-reduction-commitments-directive-2024

# Assumptions on potentials for Carbon Dioxide Removals in the EU

This report analyses and critically reviews assumptions on natural carbon dioxide removal (CDR) and storage potentials with a view to the objectives of the EU Land Use, Land-Use Change and Forestry (LU-LUCF) and Carbon Removal Certification Framework (CRCF) legislation agreed until February 2024.

### Source:

https://www.umweltbundesamt.de/sites/default/files/medien/11850/publikationen/35\_2024\_cc\_potentials\_for\_cdr.pdf

# **European Union emission inventory report 1990-2022**

The report looks at air pollutant emissions reported by the EU under the UNECE Convention on Long-range Transboundary Air Pollution (the Air Convention) and includes a wide range of substances. These include the five main air pollutants (NOX, NMVOCs, SO2, NH3 and PM2.5) but also others such as heavy metals, black carbon or persistent organic pollutants.

#### Source:

European Environment Agency (EEA) - Publications https://www.eea.europa.eu/publications/european-union-emissions-inventory-report-1990-2022

# **European Hydrogen Markets - 2024 Market Monitoring Report of EU ACER**

This report marks the start of EU's Agency for the Cooperation of Energy Regulators work in monitoring the emerging European hydrogen market (as mandated by the Hydrogen and Gas Decarbonisation Package).

This first hydrogen Market Monitoring Report (MMR), covering 2023 and first half of 2024, sheds light on the main regulatory challenges of the hydrogen markets at EU and national level. It addresses issues such as the repurposing of gas networks and the need for greater coordination by hydrogen, natural gas and electricity network operators.

#### Source:

https://www.acer.europa.eu/monitoring/MMR/european\_hydrogen\_markets\_2024

# Renewable fuels: Advanced biofuels and synthetic renewable fuels

Transportation fuels are among the largest sources of greenhouse gas (GHG) emissions in the EU. In line with the European Green Deal's goal of achieving climate neutrality by 2050, 15 EU-funded projects are introducing renewable fuel technologies that will support the clean energy transition in the transport sector and help EU's energy independence. The results are described in this brochure from May 2024.

### Source:

https://cordis.europa.eu/article/id/443177-advanced-biofuels-and-synthetic-renewable-fuels

# **ERIA:** Global Strategies of International Oil Companies and Their Activities in Indonesia under Energy Transition

This report examines the activities of International Oil Companies (IOCs) in Indonesia.

Chapter 1 provides an overview of the global energy landscape, which serves as the background for this report. While the COP26 conference in 2021 accelerated the global momentum toward carbon neutrality, the 2022 energy crisis, triggered by the conflict in Ukraine, disrupted this progress. Chapter 2 delves into the global strategies of IOCs as a precursor to understanding their activities in Indonesia. In response to the energy crisis, some European IOCs have cautiously increased their exploration and production (E&P) efforts. Chapter 3 focuses on the oil and gas business activities of IOCs in Indonesia. Notably,



Chevron, ConocoPhillips, and Shell have exited Indonesia's E&P sector, while companies like Eni and INPEX are actively pursuing new development projects. Chapter 4 explores the key factors necessary to create a win—win relationship between the Indonesian government and IOCs.

#### Source:

https://www.eria.org/uploads/Global-Strategies-of-International-Oil-Companies-and-Their-Activities-in-Indonesia.pdf

# Japan's Energy White Paper 2024

The Annual Report on Energy (Energy White Paper) summarizes the measures on energy supply and demand that the Government of Japan conducted in the previous fiscal year. It is submitted to the Diet pursuant to Article 11 of the Basic Act on Energy Policy. On June 4, 2024, a Cabinet Decision was made on the Energy White Paper 2024. Each year, the Energy White Paper describes the energy trends and the status of measures taken regarding energy supply and demand in the previous fiscal year.

### Source:

https://www.meti.go.jp/english/press/2024/0604\_002.html

# U.S. Energy Department: New Report on Pathways to Commercial Liftoff for SAF

The U.S. Department of Energy (DOE) today announced the release of its latest Pathways to Commercial Liftoff report, which underscores the near-term potential for sustainable aviation fuel (SAF) to meaningfully decarbonize the aviation sector. "Pathways to Commercial Liftoff: Sustainable Aviation Fuel" analyzes the technical and commercial readiness of several SAF production pathways and highlights tangible, actionable steps that both the public and private sector can take to make the United States a global leader in SAF production as soon as 2030.

### Source:

U.S. Department of Energy Releases New Report on Pathways to Commercial Liftoff for Sustainable Aviation Fuel | Department of Energy

## **EVENTS**

### 9th Future of Biogas Europe Summit 2024

27 – 28 November 2024, Barcelona, Spain https://www.wplgroup.com/aci/event/future-biogas-europe/ RNG Conference

9-12 December 2024, Dana Point, California, USA https://www.rngcoalition.com/rng-conference/

### **Transportation Research Board Annual Meeting**

5-9 January 2025, Washington, D.C., USA

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

### Fuels of the Future

20-21 January 2025, Berlin, Germany https://www.fuels-of-the-future.com/en

### **Clean Fuels Conference**

20-23 January 2025, San Diego, California, USA https://www.cleanfuelsconference.org/

### Lignofuels 2025

11 -13 February 2025, Helsinki - Finland

https://www.wplgroup.com/aci/event/lignocellulosic-fuel-conference-europe/

# Renewable Fuels Association National Ethanol Conference

17-19 February, 2025, Nashville, Tennessee, USA https://www.nationalethanolconference.com/

### **European Green Ammonia Summit 2025**

5 - 6 March 2025, Dusseldorf, Germany

https://www.wplgroup.com/aci/event/european-green-ammonia-summit/

### The Work Truck Show & Green Truck Summit

4-7 March 2025, Indianapolis, Indiana, USA https://www.worktruckweek.com/

### **International Biomass Conference & Expo**

18-20 March 2025, Atlanta, Georgia, USA http://www.biomassconference.com

### **WCX SAE World Congress Experience**

8-10 April 2025, Detroit, Michigan, USA https://www.sae.org/highlights/wcx

# Advanced Clean Technology (ACT) Expo

28 April - 1 May 2025, Anaheim, California, USA https://www.actexpo.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 Robert ROSENITSCH, TU Vienna, Shinichi GOTO, AIST, and Andy BURNHAM, ANL. It is edited by Jan Schmidt, FNR. The Newsletter is available online at: <a href="https://www.iea-amf.org">www.iea-amf.org</a>.

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.

# CONTACT

#### AMF SECRETARY

Dina Bacovsky

BEST – Bioenergy and Sustainable Technologies

secretariat@iea-amf.org

+43 5 02378 9435

### **AMF EXCO CHAIR**

Jesper Schramm, Technical University of Denmark jessc@dtu.dk

#### **AMF DELEGATES**

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Federal Ministry for Climate Action, Environment, Energy, Mobility, Ir novation and Technology, Andreas Dorda

#### Brazi

Energy Research Office, Rachel Martins Henriques

### Canada

Environment and Climate Change Canada, Debbie Rosenblatt

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China Automotive Technology and Research Center (CATARC), Hong Shi

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Technical University of Denmark, Jesper Schramm

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VTT Technical Research Centre of Finland, Petri Söderena

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Agency for Renewable Resources (FNR), Birger Kerckow

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Ministry of Petroleum & Natural Gas, Sunil Kumar

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Organization for the Promotion of Low Emission Vehicles (LEVO), Yutaka Takada

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Institute for the Diversification and Saving of Energy (IDAE), Francisco José Domínguez Pérez

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Swedish Transport Administration, Magnus Lindgren

### Switzerland

Swiss Federal Office of Energy (SFOE), Sandra Hermle

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Department of Energy (DOE), Kevin Stork

