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# Advanced Motor Fuels News



Liquid biofuels can significantly reduce GHG emissions from the shipping sector

[MORE](#)

## CONTENTS

### DEMONSTRATION / IMPLEMENTATION / MARKETS

East Asian study on strategies for CO2 Emissions Reduction

Energy Reality and Emissions in ASEAN

Transforming Transjakarta

Cellulosic ethanol from palm residues

Green freight programs

Natural Gas Hybrid for Freight Trucking

Columbia Electric Bus Deployment

### POLICY / LEGISLATION / MANDATES / STANDARDS

Brazil imposes tariffs on ethanol imports

Malaysia and EU in palm oil dispute

California Zero-Emission Heavy-Duty Truck Sales Requirement

California NGVs are Carbon Negative

California To Invest in Fuel Cell Refueling

Cap for the Use of Fossil Fuel

### SPOTLIGHT SHIPPING

The potential of liquid biofuels in reducing ship emissions

Maersk ready to set sail with carbon neutral ships

Navigating Towards Cleaner Maritime Shipping

## IEA & IEA AMF NEWS

The Role of Renewable Transport Fuels in Decarbonizing Road Transport

## PUBLICATIONS

Global energy and climate outlook 2020

“Just A Minute (or So) about Renewable Fuels” Series of Educational Videos

Japan: IEEJ Outlook 2021

LCA of conventional and alternatively fuelled vehicles

Analysis of bioenergy supply and demand in the EU

Measuring the contribution of gas infrastructure projects to sustainability

Innovation Outlook Renewable Methanol

EEA Signals 2020 — Towards zero pollution in Europe

Regulations and Standards for Clean Trucks and Buses

Business Case of Electric Buses in Latin America

Development of Canadian Electric Vehicle Supply Chain

## EVENTS

## IMPRINT



## DEMONSTRATION / IMPLEMENTATION / MARKETS

### East Asian study on strategies for CO2 Emissions Reduction

In a report of the ERIA Research Project Working Group on 'Evaluation of CO2 Emissions Reduction by Mobility Electrification and Alternative Biofuel Introduction in East Asia Summit Countries', experts from India, Indonesia, Japan, Philippines and Thailand estimated the carbon emission reduction potentials of using biofuel in road vehicles, as a complementary strategy to increasing electrified vehicles in India, Indonesia, and Thailand.

The simulation results indicate that a moderate electrification strategy alone is not sufficient to reduce carbon emissions to the level required by 2030, and a moderate to aggressive electrification combined with hybrid-promotion would have a maximum impact. The complementary use of both the conventional and next generation biofuels, as a substitute for transport fuel demand, will have total net positive carbon reduction and economic benefits.

Hence, it is necessary to incentivise biofuels along with electric vehicles and hybrid automobiles as a part of a balanced portfolio of approaches to decarbonise the transport sector in the Association of Southeast Asian Nations and East Asia.

Source: ERIA

Link:

<https://www.eria.org/publications/evaluation-of-co2-emissions-reduction-by-mobility-electrification-and-alternative-biofuel-introduction-in-east-asia-summit-countries/>

### Energy Reality and Emissions in ASEAN

The Association of Southeast Asian Nations (ASEAN) faces tremendous challenges regarding the future energy landscape and how the energy transition will embrace a new architecture – including sound policies and technologies to ensure energy access together with affordability, energy security, and energy sustainability. Given the high share of fossil fuels in ASEAN's current energy mix (oil, coal, and natural gas comprise almost 80%), the clean use of fossil fuels through the deployment of clean technologies is indispensable for decarbonising ASEAN's emissions. The future energy landscape of ASEAN will rely on today's actions, policies, and investments to change the fossil fuel-based energy system towards a cleaner energy system, but any decisions and energy policy measures to be rolled out during the energy transition need to be weighed against potentially higher energy costs, affordability issues, and energy security risks.

This paper employs energy modelling scenarios to seek plausible policy options for ASEAN to achieve more emissions reductions as well as energy savings,

and to assess the extent to which the composition of the energy mix will be changed under various energy policy scenarios.

The results imply policy recommendations for accelerating the share of renewables, adopting clean technologies and the clean use of fossil fuels, and investing in climate-resilient energy quality infrastructure.

Source: ERIA

Link:

<https://www.eria.org/publications/energy-reality-and-emissions-in-asean-energy-modelling-scenarios-and-policy-implications/>

### Transforming Transjakarta

Residents of Jakarta take pride in their bus rapid transit (BRT) system, owned and operated by Transjakarta. Introduced in 2004, it was not only the first BRT system in Southeast Asia, but it has also become the longest BRT system in the world. Transjakarta's network covers 260 stops along 13 corridors that span more than 250 kilometers. As of 2019, the fleet serves more than 250 million riders per year. Transjakarta is subsidized by the city government and the flat-rate fare of IDR 3,500 per ride, about 25 cents in today's U.S. currency, has held steady throughout the years.

Unfortunately, the Transjakarta fleet is also contributing to Jakarta's poor air quality, which has been well documented. More than 70% of Transjakarta buses are Euro II and Euro III diesel technologies, far behind the most advanced Euro VI technologies. These buses emit particulate matter 2.5 (PM2.5), nitrogen oxides (NOx), and black carbon (soot), among other pollutants, and these pollutants are associated with a wide variety of health hazards, including heart disease, stroke, chronic bronchitis, asthma, and lung cancer. An ICCT study conservatively estimated that 13.5% of premature deaths from air pollution—PM2.5 and ozone—in Jakarta in 2015 were attributable to transportation.

To address this, Transjakarta is exploring a major overhaul to zero-emission buses and has bold ambitions to shift to a 100% zero-emission fleet by 2030. Additionally, recent official decrees like Presidential Regulation No. 55/2019 and Jakarta Governor Regulation No. 03/2020 are aimed at encouraging electric vehicle market development and adoption in general.

Transjakarta is leapfrogging from Euro II and III buses to electric buses directly. There hasn't been any timeline announced for the adoption of Euro VI diesel fuel quality and emission standards in Indonesia. Both are needed for the cleanest soot-free diesel buses, which provide up to 99% reduction in black carbon emissions, to be possible. Moreover, Transjakarta decided not to pursue compressed natural gas buses after some experience with them in the 2000s. That

left electric buses as the remaining candidate technology.

Source: ICCT

Link: <https://theicct.org/blog/staff/transjakarta-worlds-largest-brt-fleet-oct2020>

### Cellulosic ethanol from palm residues

Cellulosic ethanol is a sustainable, second-generation biofuel that utilizes waste cellulosic biomass for energy. Indonesia's palm industry produces enormous volumes of palm biomass residues, including palm trunks, palm empty fruit bunches, and press fiber, and these are typically not utilized and instead left on the field to rot. Given that Indonesia has ambitious goals for replacing petroleum with biofuels, the cellulosic ethanol industry could take advantage of this abundant resource.

Recently, a study has assessed the costs and potential ramp up of cellulosic ethanol production specifically in Indonesia. The study estimates the levelized production cost of cellulosic ethanol using a discounted cash flow model that accounts for the various costs of building and operating a new cellulosic ethanol plant, including equipment, construction, land, feedstock, maintenance, and labor. It also explores a roadmap in which a new cellulosic ethanol industry could be developed and ramped up over the next two decades.

The results show that an annual government subsidy of IDR 4.7–6 trillion (US\$335–430 million) would be needed to support the ramp up of a first wave of 10 moderately large facilities, each with a production capacity of 70 million liters, depending on the use of different types of feedstock.

Additionally, the authors find that if Indonesia were to build a total of 30 commercial facilities over the next 10 years, the country could produce 2 billion liters of cellulosic ethanol annually, replacing a conservative estimate of 4% of its gasoline consumption at a relatively low cost compared to other countries. Developing a domestic cellulosic industry could bring multiple benefits to Indonesia including reduced oil imports, new jobs, additional revenue for the palm industries/smallholders, and greater greenhouse gas savings than first-generation biofuels.

Source: ICCT

Link: <https://theicct.org/publications/techno-economic-cellulosic-ethanol-2020>

### Green freight programs

In a recent study, existing vehicle simulation tools are applied to streamline technology verification and accelerate technology uptake in green freight programs. The Technology Verification Tool (TVT) can be used by fleet or green freight program managers to estimate the potential fuel savings of truck technologies without extensive real-world testing.

This study uses tools based on GEM and VECTO to estimate the potential fuel-saving benefits of aerodynamic devices and low rolling-resistance tires

of typical Latin American tractor-trailers, as well as the effects of different duty cycles. The analysis compares the results for a generic tractor-trailer with those for 100 vehicle variants meant to represent a diverse range of fleets. The simplified tools allow carriers interested in quantifying the effects of such technologies to estimate fuel-consumption reductions using a vehicle model that is similar but not identical to their actual vehicles.

Simulation results indicate a relatively narrow range in efficiency improvements with variation of truck parameters. In other words, different trucks within the same truck category should experience similar efficiency improvements when using the same technology. However, the variation in efficiency improvements is much wider when changing duty cycles, in particular for aerodynamic devices whose effectiveness varies significantly with vehicle speed. This supports the use of a TVT to greatly expand the range of driving conditions that can be cost-effectively evaluated and obtain a more representative range of efficiency improvements for a given carrier's operations.

Source: ICCT

Link: <https://theicct.org/publications/technology-verification-tool-green-freight-programs>

### Natural Gas Hybrid for Freight Trucking

Canada-based C.A.T. Transport and U.S.-based Wegmans Food Store began piloting the Hyllion Hybrid conversion system on their existing natural gas combination freight trucks. The system is powered by a 280-amp lithium ion battery pack that increases vehicle power by about 30%, which allows these trucks to operate more in more difficult operations like tandem hauling. Fuel economy improvements have not been quantified yet.

Link:

<https://www.ccdigital.com/business/article/14940128/fleets-respond-to-cng-tandem-hauling-capabilities>

### Columbia Electric Bus Deployment

The Colombian capital of Bogota broke its previous record (379 in 2019) for largest electric bus order in Latin America and largest outside of China, by awarding a contract to BYD to deliver 1,002 buses starting delivery later in 2021. BYD will partner with local bus manufacturers Superpolo and BUSSCARR to assemble the 9- and 12-meter models ordered.

Link: <https://www.sustainable-bus.com/electric-bus/byd-colombia-bogota-transmilenio/>

## POLICY / LEGISLATION / MANDATES / STANDARDS

### Brazil imposes tariffs on ethanol imports

All US ethanol imports into the South American state now face a 20% tariff following the expiry of a deadline set for December 14. This relates to a Brazilian quota allowing for tariff-free imports of 187,500 cu m of the US product.

The U.S. Grains Council, Growth Energy, the Renewable Fuels Association and the National Corn Growers Association issued a statement in response to the Brazilian government's decision to let the current tariff rate quota expire - replacing it with a 20% tariff on all imports of U.S. ethanol.

They said: "Brazil's decision to impose a 20% tariff on all US ethanol imports is devastating for the ethanol industry, the future of cooperation and coordination between our nations. Not only does this decision risk destroying the great progress our two nations have made as global leaders in ethanol production, it marks a dramatic turn in our bilateral trade relationship.

"Today, Brazilian ethanol receives unfettered access into the US market, while US producers are denied reciprocal market access due to a restrictive import tariff designed solely to make US product less competitive. This unjust imbalance must be addressed.

Since May, U.S. exports to Brazil have fallen to less than 4 million gallons. Over the same time period, Brazil has exported nearly 96 million gallons of fuel ethanol to the US. A 20% tariff will only further imbalance trade between the two countries, the organisations argued.

*Link: <https://biofuels-news.com/news/trade-leaders-label-brazil-decision-devastating-for-us-ethanol/>*

### Malaysia and EU in palm oil dispute

Malaysia is set to take legal action at the global trade watchdog against the European Union and member states France and Lithuania for restricting palm oil-based biofuels in an ongoing row about access to markets.

The world's second largest palm oil producer behind Indonesia, which has called a EU renewable-energy directive "discriminatory action", is seeking consultations under the World Trade Organisation's dispute settlement mechanism.

Minister Mohd Khairuddin Aman Razali said the EU proceeded with implementing the directive without considering Malaysia's commitment and views, even after Malaysia gave feedback and sent economic and technical missions to Europe.

The EU directive "will mean the use of palm oil as biofuel in the EU cannot be taken into account in the calculation of renewable energy targets and in turn create undue trade restrictions to the country's palm oil industry", he said in the statement.

*Link: <https://biofuels-news.com/news/malaysia-gears-up-for-court-action-with-eu-in-palm-oil-dispute/>*

### California Zero-Emission Heavy-Duty Truck Sales Requirement

In June 2020, the California Air Resources Board adopted the Advanced Clean Truck regulation, which is the first time a government agency has mandated truck manufacturers to transition from diesel to electric zero-emission trucks. The rule phases in sales requirements starting in 2024 and with the goal by 2045 every new truck sold in California will have zero emissions.

Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales. By 2035, zero-emission sales need to be 55% of Class 2b – 3 straight truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales.

In addition, large employers are required to report information about shipments, while large fleet owners are required to report about their existing fleet operations. This information will help California identify strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

The rule drives technology and investment, phasing in available heavy-duty zero-emission technology starting in 2024 with full transformation over the next two decades. This sends a clear signal to manufacturers, fleet owners and utilities that the time to invest in zero-emission trucks – and the economy – is now. It builds on California's leadership as a manufacturer of zero-emission transportation.

*Link: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>*

### California NGVs are Carbon Negative

In Q2 2020, the energy weighted carbon intensity (CI) of natural gas vehicles in California's Low Carbon Fuel Standard was below zero for the first time for any fuel in the history of the program. This negative CI was due to renewable natural gas (RNG) reaching nearly 90% of all NGV fuel in the program. Currently more than \$1 billion is being invested to develop in-state RNG production projects.

*Link: <https://ngtnews.com/carb-ci-of-californias-ngv-fuel-portfolio-negative-for-first-time>*

### California To Invest in Fuel Cell Refueling

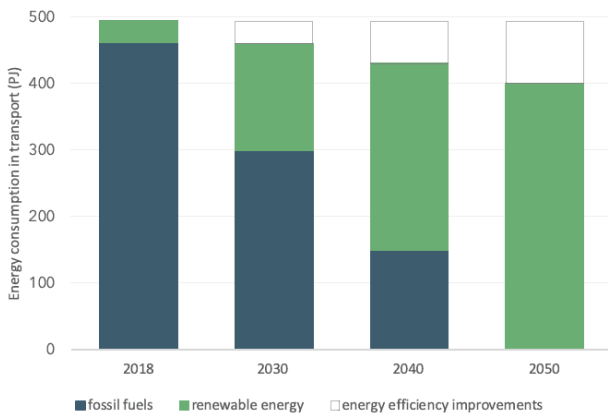
The California Energy Commission (CEC) approved a plan to invest up to \$115 million in supporting the development of 111 hydrogen fueling stations to be built by 2027. The initial development will consist of constructing 30 stations over a 30-month period. Through 2020 the CEC has spent \$125 million to install or upgrade 62 hydrogen stations.

Link: <https://www.energy.ca.gov/news/2020-12/energy-commission-approves-plan-invest-115-million-hydrogen-fueling>

### Cap for the Use of Fossil Fuel

The Netherlands Platform Sustainable Biofuels argues for a decreasing cap on the use of fossil fuels in the Netherlands mobility sector.

To combat climate change effectively the source for CO<sub>2</sub>-emissions needs to be tackled. The continuous addition of CO<sub>2</sub> by burning fossil resources causes an increase in CO<sub>2</sub> concentrations in the atmosphere and acidification of the oceans. This increase in fossil-based CO<sub>2</sub> causes climate change. That is why the use of fossil sources worldwide will have to be phased out quickly in order to limit the rise in global temperature to max 2 °C, as agreed in the Paris Agreement. According to various Energy Outlooks, global energy demand will probably continue to rise. Non-fossil energy sources are required to cover this rising energy demand. The transport sector, worldwide and also in the Netherlands, still depends for more than 95% of its energy demand on fossil sources. The sector will have to prepare itself for solutions without deployment of fossil feedstocks to meet that energy demand.



A proposed reduction trajectory for fossil fuel use towards zero in 2050, starting from the actual 2018 energy consumption in Netherlands transport (2018 data based on CBS, Statistics Netherlands)

The proposed limit, which provides for a fossil reduction pathway, is a clear signal to fuel and energy suppliers and parties in the transport sector to focus in the next three decades on switching to renewable energy carriers and renewable energy mobility services. It provides an incentive for innovation and encourages investments in climate-neutral options. A cap on fossil ensures cooperation and at the same time encourages healthy competition between all existing market players and new entrants to come up with cost-effective solutions.

Source: Transport Energy Strategies

Link:

<https://www.transportenergystrategies.com/2020/11/24/2030-climate-targets-for-mobility-require-a-cap-for-the-use-of-fossil-fuel/>

## SPOTLIGHT SHIPPING

### The potential of liquid biofuels in reducing ship emissions

In light of the emissions reduction goals of the International Maritime Organization’s initial greenhouse gas (GHG) strategy, the shipping industry is currently exploring different liquid biofuels that could replace conventional marine “bunker” fuels. This is one component of a suite of solutions that will be needed to eliminate life-cycle GHG emissions from the sector, and in the near term, existing ships will need “drop-in” fuels that can be used in large marine diesel engines with minimal modifications. To help, this study explores the potential contribution of a number of biofuel pathways.

The authors screen liquid biofuels based on qualitative criteria, assess the potential GHG and air pollution reduction benefits of key candidates compared with distillate bunker fuel, and then discuss these fuels in terms of their compatibility with marine engines. Also considered are other barriers to the use of these fuels, including feedstock availability, cost, and competition with other sectors.

Results show that feedstock is more important than conversion technology in determining a fuel pathway’s GHG reductions, and the paper identifies five liquid biofuels with the potential to reduce shipping GHG emissions on a well-to-wake, life-cycle basis relative to distillate marine fuels: (1) fatty acid methyl ester (FAME) biodiesel produced from waste fats, oils, and greases (FOGs); (2) hydrotreated renewable diesel produced from waste FOGs; (3) Fischer-Tropsch (FT) diesel produced from lignocellulosic biomass; (4) dimethyl ether (DME) generated by gasifying lignocellulosic feedstocks followed by catalytic synthesis; and (5) methanol generated by gasifying lignocellulosic feedstocks followed by catalytic synthesis. All five are expected to reduce combustion-related air pollution emissions, regardless of feedstock.

The results also suggest some policy lessons. First, policymakers should adopt rigorous life-cycle assessment methodologies that include land-use change emissions to ensure they promote only those fuels that offer significant life-cycle GHG benefits. Second, because pathways with the highest potential to deliver deep GHG reductions are also the most technologically complex and currently have the highest costs, policymakers should promote policies that focus on addressing the barriers to these sustainable fuels. Third, because of certain engine compatibility limitations, policymakers should recognize that many fuels will need to be blended with conventional fossil fuels and that they can only reduce life-cycle emissions relative to their blending ratio.

Source: ICCT

Link: <https://theicct.org/publications/marine-biofuels-sept2020>



## Maersk ready to set sail with carbon neutral ships

AP Moller-Maersk has outlined its plans for the company's first carbon neutral ships in the next few years.

The shipping industry, which carries around 80% of global trade and accounts for around 3% of global carbon emissions, has pledged to have ships and marine fuels with zero carbon emissions ready by 2030.

Søren Skou, the CEO of the group that controls the largest container line in the world, revealed that the company will be ordering carbon neutral ships within the next three years.

Speaking in the latest episode of the Outrage and Optimism podcast, which focused on the future of shipping, Skou said Maersk would start off with smaller tonnage ships aimed at regional trades, before taking the knowledge and experience from this first generation of new ships to order a round of larger boxships.

"Three years from now, we expect to buy the first order," Skou said.

"Then we can go out and make supply contracts with people that can provide, whether it's ammonia or alcohol, methanol and ethanol," Skou continued, saying the aim was then to order larger carbon-neutral ships before the end of the decade.

In December 2018, Maersk came out as the first major shipping line to pledge to be carbon neutral by 2050.

"A ship has a life expectancy of between 20 and 25 years, so we need to start replacing ships by 2030 in order to be ready at 2050," Skou told the podcast.

Link: <https://biofuels-news.com/news/maersk-ready-to-set-sail-with-carbon-neutral-ships/>

## Navigating Towards Cleaner Maritime Shipping

A recent report from the International Transport Forum in cooperation with Nordic Energy Research analysed prospects for energy use in the Nordic shipping sector. It outlines potential solutions that could allow the region to pro-actively respond to the imperatives of energy diversification, the reduction of local pollutants and the abatement of greenhouse gas (GHG) emissions. The Nordic region is pioneering efforts to reduce the environmental impact of maritime shipping, making the findings of this report relevant around the globe.

The report finds that in addition to energy efficiency, low-carbon fuels/energy vectors are needed to decarbonise the maritime sector. Biofuels, electricity, hydrogen, synthetic hydrocarbons and ammonia are the most promising options, if produced with low-carbon energy and (where relevant) renewable carbon, when comparing energy options based on well-to-wake and lifecycle assessments.

Conversely, Liquefied Natural Gas (LNG) or methanol (when produced using fossil fuels) do not deliver, in current conditions, significantly lower GHG emissions than conventional marine fuels. Current policies focus on direct CO2 emissions and do not account for other GHG emissions such as methane or emissions from upstream fuel production. This limitation creates inappropriate advantages for fuels such as fossil LNG, as its main benefit of relatively low direct CO2 emissions is offset by relatively high well-to-wake GHG emissions.

Source: ITF

Link: <https://www.itf-oecd.org/navigating-towards-cleaner-maritime-shiping>

## IEA & IEA AMF NEWS

### The Role of Renewable Transport Fuels in Decarbonizing Road Transport

In cooperation with IEA Bioenergy, AMF has investigated the impact that energy efficiency, electric vehicles, biofuels and e-fuels can have on GHG emissions from road transport now and over the next decades.

The report consists of four parts that cover key strategies for decarbonization in selected countries, production technologies and costs, scenarios and contributions in selected countries, and deployment barriers and policy recommendations.

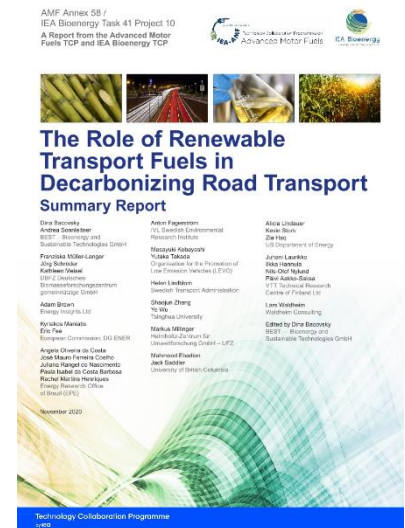
The assessment shows that biofuels contribute most to decarbonization now and up to 2030, 2040, or even 2050, depending on the country. In Germany and in the USA, efficiency gains become the main contributor after 2030, and in Finland and Sweden the impact of biofuels remains largest until around 2040 when the use of electric vehicles takes over. In Brazil, biofuels remain the largest contributor until 2050.

The report has been launched at a webinar in the IEA Bioenergy webinar series, and is published on both websites.

Link to webinar:

<https://www.ieabioenergy.com/blog/publications/iea-bioenergy-webinar-the-contribution-of-renewable-fuels-to-road-transport-decarbonisation/>

Link to report: [https://iea-amf.org/content/projects/map\\_projects/58](https://iea-amf.org/content/projects/map_projects/58)



## PUBLICATIONS

### Global energy and climate outlook 2020

This edition of the Global Energy and Climate Outlook (GECO 2020) puts its focus on analysing the impact of the Covid-19 outbreak on the transport sector as a whole. This report explores the impacts of transport activity trends that may persist in the future from the structural changes induced by the Covid-19 pandemic, as well as of policy initiatives that may be adopted as enabling measures for low-carbon transport.

Source: European Union

Document viewer: <https://op.europa.eu/en/publication-detail/-/publication/881d0e6b-53ba-11eb-b59f-01aa75ed71a1/language-en/format-PDF/source-184708226>

### “Just A Minute (or So) about Renewable Fuels” Series of Educational Videos

Curious about renewable fuels? About biofuels? This new series of short videos enables you to take just a few minutes to get a quick review of essentials about renewable fuels. By watching a 2-4 minutes (or so) video you can learn about topics like the wide range of things that can be used to make renewable fuels; making chemicals, including fuels, from waste CO<sub>2</sub>; retrofitting an old car to use E85 (85% renewable fuel); the historical, everyday and future uses of renewable fuels; and, the latest in the series, diving deeper into the benefits of renewable fuels.

Each episode showcases a slice of the renewable fuels world. In addition to the YouTube videos, a page in the Advanced Biofuels USA online library includes links to additional resources and reference materials. Many more episodes are planned.

Perfect for teachers and students of all ages; for anyone just curious about renewable fuels, and also useful for those considering sustainability issues for businesses and organizations or developing policy at any level from individuals and businesses through all levels of government. These quick videos are packed with information to enhance informed decision-making.

<https://advancedbiofuelsusa.info/category/education/just-a-minute/>

### Japan: IEEJ Outlook 2021

The IEEJ (The Institute of Energy Economics, Japan) Outlook 2021 shows the energy transition in the world. The coronavirus (COVID-19) pandemic brings about a decline in the global primary energy consumption at least in the short term. The demand for energy will increase again, however, once vaccines and the therapeutic drugs are developed, ending the global disaster, and allowing society and the economy return to normal. In this case, under the “Reference Scenario” which reflects changes in energy and environment policies to date and are expected to continue, energy consumption in 2050 will increase by 1.3 times over the 2018 level.

Source: <https://eneken.ieej.or.jp/data/9176.pdf>

### LCA of conventional and alternatively fuelled vehicles

To help support decision making on mitigating actions in the transport sector it is paramount to develop a better understanding of the environmental impacts of road vehicles over their entire lifecycle. This report summarizes a range of vehicle life-cycle assessment (LCA) studies available in the public domain, which were found to be of varying focus, data quality, detail and coverage for the 2020 to 2050 timeframe. The study has combined state-of-the art vehicle LCA with novel methodological choices to develop results for a range of environmental impacts for 14 electricity chains, 60 fuel chains, and 65 generic vehicle/powertrain combinations across 7 vehicle types.

Source: European Commission, Studies,

[https://ec.europa.eu/clima/policies/transport/vehicles\\_en#tab-0-1](https://ec.europa.eu/clima/policies/transport/vehicles_en#tab-0-1)

[https://ec.europa.eu/clima/sites/clima/files/transport/vehicles/docs/2020\\_study\\_main\\_report\\_en.pdf](https://ec.europa.eu/clima/sites/clima/files/transport/vehicles/docs/2020_study_main_report_en.pdf)

### Analysis of bioenergy supply and demand in the EU

The Renewable Energy Directive requires the Commission to report on the progress of renewable energy and on the sustainability of biofuels consumed in the EU. To assist the Commission in this task, this report provides insights into the development of biofuels, biomass and biogas for renewable energy in the EU from 2010 to 2018 (with a focus on the most recent years). Specifically, the report assesses the production, consumption and trade of bioenergy, and quantifies the sustainability impacts of EU consumption of biofuels. The analysis is based on Member State Renewable Energy Progress Reports submitted in 2019, Eurostat SHARES and other Eurostat statistics, other reports, studies and databases, and additional original research.

Source: European Union

Document viewer: <https://op.europa.eu/en/publication-detail/-/publication/b9c0db60-11c7-11eb-9a54-01aa75ed71a1/language-en/format-PDF/source-174582492>

<https://op.europa.eu/en/publication-detail/-/publication/b9c0db60-11c7-11eb-9a54-01aa75ed71a1/language-en/format-PDF/source-174582492>

### Measuring the contribution of gas infrastructure projects to sustainability

The main objective of this study is to define and test a comprehensive indicator for the sustainability impacts of gas infrastructure projects considering the TEN-E Regulation requirements of Art. 4.2 (b) (iv) and Annex IV.3. The proposed indicator improves the consideration of the projects’ sustainability impacts that feed in the gas PCI selection process.

Source: European Union

Document viewer: <https://op.europa.eu/en/publication-detail/-/publication/364d69a4-1744-11eb-b57e-01aa75ed71a1/language-en/format-PDF/source-174515873>

<https://op.europa.eu/en/publication-detail/-/publication/364d69a4-1744-11eb-b57e-01aa75ed71a1/language-en/format-PDF/source-174515873>

## Innovation Outlook Renewable Methanol

Methanol is essential for the chemical industry and represents an emerging fuel for a wide range of uses. Although largely produced from fossil fuels, it can also be made from sustainable, renewable-based energy sources.

This joint report by International Renewable Energy Agency (IRENA) and Methanol Institute (MI) identifies challenges, offers policy recommendations, and explores ways to produce renewable methanol at a reasonable cost.

Link: [https://irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jan/IRENA\\_Innovation\\_Renewable\\_Methanol\\_2021.pdf](https://irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jan/IRENA_Innovation_Renewable_Methanol_2021.pdf)

## EEA Signals 2020 — Towards zero pollution in Europe

What is pollution? Where does it come from? How does pollution affect the environment and how does it affect people's health? How can Europe move towards zero pollution, in line with the ambition of the European Green Deal? EEA Signals 2020 looks at pollution through different lenses related to the Agency's work and EU legislation.

Source: European Environment Agency (EEA) - Publications  
<https://www.eea.europa.eu/publications/signals-2020>  
Link: [https://www.eea.europa.eu/publications/signals-2020/at\\_download/file](https://www.eea.europa.eu/publications/signals-2020/at_download/file)

## Regulations and Standards for Clean Trucks and Buses

This ITF report reviews progress on technical standards for heavy vehicles that could enable trucks and buses with zero or near-zero emissions. It focuses on plug-in and fuel cell electric vehicles that use technologies at the forefront of green and inclusive economic development. It includes information on technical standards on charging and refueling infrastructure, and identifies remaining barriers and opportunities for their future development. The report offers valuable insights for all stakeholders involved in the transition to carbon-free mobility and clean energy.

Link: <https://www.itf-oecd.org/regulations-and-standards-clean-trucks-and-buses>

## Business Case of Electric Buses in Latin America

A report was developed for the Zero Emission Bus Rapid-Deployment Accelerator (ZEBRA) Partnership to help accelerate the transition to zero-emission buses across Latin American cities. The report highlights the business case for electric buses, the current state of the market, and its potential for growth. There are investment synopses for Bogotá, Santiago, Mexico City, São Paulo, and Medellín.

Link: <https://theicct.org/publications/zebra-dalberg-report-sept2020>

## Development of Canadian Electric Vehicle Supply Chain

Clean Energy Canada examined the potential of increasing electric vehicle battery production, manufacturing, and usage in Canada to both improve its manufacturing base and carbon footprint. Over the past two decades Canadian vehicle manufacturing fell by nearly 40%. In addition, Canada has the lowest automotive fleet fuel economy of major markets in the world largely due to growth in SUV and pickup truck ownership. The study suggests the Canadian government should develop a roadmap to address these economic and environmental issues.

<https://cleanenergycanada.org/report/taking-the-wheel/>

## EVENTS

### SAE Hybrid and Electric Vehicle Technologies Symposium

16-18 February 2021, Pasadena, California, USA  
<https://www.sae.org/attend/hybrid>

### Renewable Fuels Association National Ethanol Conference

15-17 February 2021, San Diego, California, USA  
<http://www.nationalethanolconference.com/>

### The Work Truck Show & GreenTruck Summit

9-12 March 2021, Indianapolis, Indiana, USA  
<http://www.worktruckshow.com/>

### WCX SAE World Congress Experience

13-15 April 2021, Detroit, Michigan, USA  
<https://www.sae.org/attend/wcx>

### 10th European Algae Industry Summit

21-22 April 2021, Reykjavik, Iceland  
<https://www.wplgroup.com/aci/event/european-algae-industry-summit/>

### Advanced Clean Technology (ACT) Expo

3-6 May 2021, Long Beach, California, USA  
<https://www.actexpo.com/>

### Gasification Summit 2021

5-6 May 2021, Lyon, France  
<https://www.wplgroup.com/aci/event/gasification/>

### The Battery Show and Electric & Hybrid Vehicle Technology Expo

18-20 May 2021, Stuttgart, Germany  
<https://www.evtechexpo.eu/>

### Biofuture Summit II and BBEST2021

24-26 May 2021, Sao Paulo, Brazil  
<http://bbest-biofuture.org/v2/>

### Oleofuels 2021

9th June 2021 - 10th June; Marseille – France  
<https://www.wplgroup.com/aci/event/oleofuels/>

### Electric & Hybrid Vehicle Technology Expo

14-16 September 2021, Novi, Michigan, USA  
<https://evtechexpo.com/>

### NGVAmerica Meeting & Industry Summit

18-21 October 2021, Phoenix, Arizona, USA  
<https://ngvshow.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 Werner TOBER and Robert ROSENITSCH, TU Vienna, Shinichi GOTO, AIST, and Andy BURNHAM, ANL. It is edited by Andrea Sonnleitner and Dina Bacovsky, BEST – Bioenergy and Sustainable Solutions. The Newsletter is available online at: [www.iea-amf.org](http://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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