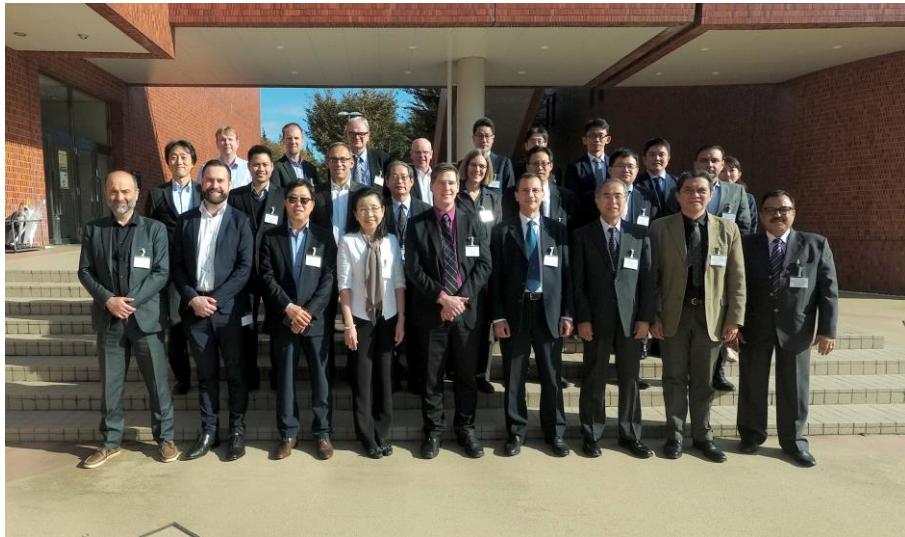


# AMFI Newsletter



*The 54th AMF ExCo Meeting was held 29 October – 1 November 2017 in Tsukuba, Japan.*

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### EVENTS

## DEMONSTRATION / IMPLEMENTATION / MARKETS

### **Pulp-mill integrated biomethanol production**

The largest forest-owner association in Sweden and an international forest industry group will invest more than SEK 100 million in the production of biomethanol, a sustainable fuel from forest raw material. The project will commence in autumn 2017 and is scheduled to be ready for operation by spring 2019. The aim is to produce 5,000 tons of biomethanol per year at a new facility to be situated at a pulp mill at Mönsterås. The long-term aim is to further increase production for passenger, truck and ship transport.



The biomethanol will be made from the crude methanol produced by the manufacturing process at the pulp mill. It will be part of the circular process that already exists, in which all parts of the forest raw material are used for the best possible effect. The first delivery will reach the market in spring 2019.

Source: Press Release 2017-09-05

Link: <https://www.sodra.com/en/about-sodra/press/press-releases/2658273/>

### **Cellulosic ethanol plant for Romania**

By the end of October 2017 plans were announced to build a new full-scale commercial plant for the production of cellulosic ethanol from agricultural residues. The plant, with an annual production capacity of 50,000 tons, will be built in the southwestern part of Romania. The facility will be a flagship site at commercial scale. The ground breaking and start of construction is planned for 2018. The plant is anticipated to deliver its first batch of product in 2020. At full capacity, the new plant will process approximately 250,000 tons of straw, which will be sourced from local farmers. Co-products from the process will be used for the generation of renewable energy with the goal of making the plant independent from fossil energy sources.

Source: <https://www.clariant.com/en/Corporate/News/2017/10/Clariant-to-build-flagship-sunliquid-cellulosic-ethanol-plant-in-Romania>

### **Waste fats to biodiesel plant in the United States**

An Austrian plant engineering company was awarded a contract for a new biodiesel plant in the United States. This lighthouse project in the USA is the third plant of its kind dedicated to the disposal of fatty waste materials from metropolitan areas. Beside Hong Kong – where trap grease from local restaurants are converted, and Stanlow/UK – where also “Fetbergs” from the London sewage system are used as feedstock for biodiesel production, the new plant will mainly process fats, oil and grease (FOG) from metropolitan areas in California.

The plant will be equipped with a new technology which allows an extremely high feedstock flexibility. Waste oils and fats of different kinds and origin, e.g. used cooking oil, yellow grease, animal fats, trap grease, or residues from vegetable oil refining, can be processed into high-quality biodiesel. In contrast to the standard biodiesel process the new technology features a low-cost recyclable catalyst and avoids complex by-product treatment. Therefore, operating costs

are drastically reduced and the quality of by-products is significantly improved. The first plant of this kind was built in Austria.

*BDI – Bioenergy International, November 2017*

Link: [https://www.bdi-bioenergy.com/en-bdi\\_receives\\_further\\_order\\_from\\_us\\_american\\_customer-142-info-995.html](https://www.bdi-bioenergy.com/en-bdi_receives_further_order_from_us_american_customer-142-info-995.html)

## POLICY / LEGISLATION / MANDATES / STANDARDS

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### *Electrofuels in European Transport's Future*

Liquid fuels are set to be part of the European and global transport energy supply for some time to come – and given limitations on sustainable biofuel production, the option of converting renewable electricity into petrol, diesel and jet fuel is a subject of renewed interest. In a review, commissioned by the Brussels NGO Transport and Environment, the status and economics of electrofuel production, and the implications of a growth in electrofuel supply in the EU for electricity demand are considered.

The study finds that the cost of electrofuel production, and in particular the cost of input electricity, is a major barrier to competitiveness that looks likely to be difficult to overcome in the near future. Given the relative inefficiency of use of electricity for liquid fuel production as compared to direct supply of electricity to electric vehicles, electrofuel production should be considered as a niche solution primarily relevant in parts of transport where electrification and efficiency improvements cannot on their own deliver outcomes consistent with 2050 decarbonisation targets, notably aviation.

The report also highlights the regulatory challenges of counting electricity as 'renewable' when used for electrofuel production, and highlights that the proposed regulatory framework under RED II could unintentionally undermine European environmental goals by double counting renewability.

Link: <http://www.cerulogy.com/electrofuels/power-to-the-people-what-role-is-there-for-electrofuel-technologies-in-european-transports-low-carbon-future/>

### **Banning palm oil blocks good practices**

Palm oil is not equal to palm oil, ETH Zürich argues in a blog. Since plantations differ massively in environmental and social criteria, a general ban of palm oil in biofuels would punish the wrong producers while having little impact on reducing deforestation.

Biofuels, including biodiesel, help to mitigate climate change by replacing fossil fuels. In the EU the main raw material for biodiesel is rapeseed, followed by palm oil. Annually, the EU imports around 7 mio. t of palm oil, of which over 40% is used for biofuels. In April 2017, the European Parliament voted to ban the use of palm oil in biofuels by 2020, ostensibly to limit the deforestation which has been blamed on the expansion of oil palm plantations.

A simple ban ignores the complexity of issues; while environmental organizations have highlighted illegal and environmentally damaging activities by the oil palm industry in Southeast Asia, other palm oil producers risk being unfairly tarred with the same brush.

E.g. the case of Colombia, the fourth-largest palm oil producer, with close to half a million hectares planted. Oil palm plantations in Latin America have mostly been planted on land

formerly cleared for cattle ranching. Replacing fossil fuels with Colombian biodiesel produced on former pastures allows immediate reductions in greenhouse gas emissions, while it takes 30 to 120 years for biodiesel produced on former rainforest to compensate for the emissions resulting from deforestation.

The EU should therefore implement its ban selectively, discriminating among palm oil sources based on sustainability criteria. If a ban ignores differentiation and traceability, it risks undermining efforts to improve sustainability in producer countries, especially in regions that are making substantial efforts towards sustainability. A more selective ban based on effective traceability of sustainable palm oil will not only support good practices in Colombia, but will also encourage producers and agro-industries around the world to do likewise.

Source: <https://www.ethz.ch/content/main/en/news-und-veranstaltungen/eth-news/news/2017/10/palmoelverbot-bestraft-die-falschen.html>

## SPOTLIGHT ASIA

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### **China plans nationwide use of biofuel by 2020**

According to a plan jointly released by the National Development and Reform Commission, the National Energy Administration, and the Ministry of Finance, China will implement nation-wide use of ethanol-added gasoline by 2020, while targeting the large-scale production of cellulose ethanol and other advanced biofuels by 2025.

Source: *China Climate Change Info-Net*, 15 September, 2017

Link: <http://en.ccchina.gov.cn/Detail.aspx?newsId=69139&TId=96>

Source: *Biofuels International*, 13 September 2017

Link: [http://biofuels-news.com/display\\_news/12871/china\\_aims\\_to\\_beef\\_up\\_bioethanol\\_production\\_by\\_2020%3C/a/](http://biofuels-news.com/display_news/12871/china_aims_to_beef_up_bioethanol_production_by_2020%3C/a/)

### **China's regulation on new energy vehicles**

China will put into effect the much-awaited new energy vehicle (NEV) credit scheme in 2019, a year later than originally planned. Two parallel administrative measures for Passenger Vehicle Corporate Average Fuel Consumption (CAFC) and New Energy Vehicle (NEV) Credits were released on September 27 and will officially go into effect on April 1, 2018.

The NEV credit scheme requires automakers to produce enough NEVs earning credits equivalent to 10 percent of sales in 2019 and 12 percent of sales in 2020. The fixed percentage points for 2021 and subsequent years will be announced in the future.

The standard credit for a battery electric vehicle (BEV) will be calculated based on its range and a multiplication factor based on curb weight and electric energy consumption. A plug-in hybrid electric vehicle (PHEV) will get 2 credits regardless of spec while the credit for a fuel cell electric vehicle (FCEV) is calculated via a formula based on the vehicle's rated power.

Domestic passenger vehicle manufacturers and passenger vehicle importers in China are all subject to CAFC and NEV credit calculation. A platform will be built for the administration of CAFC and NEV credits to advance the notification, transfer, and transaction of credits. The Measures stipulates calculation of CAFC and NEV credits, stating clearly the calculation methods for relevant quotas such as actual credit score, up-to-standard credit score and target credit score.

Source: *Ministry of Industry and Information Technology*, 27 September 2017

Links: <http://www.miit.gov.cn/n1146290/n4388791/c5826378/content.html>

[http://www.sohu.com/a/204991693\\_352084](http://www.sohu.com/a/204991693_352084)

## **Philippine domestic ethanol prices fell by 19%**

In the Philippines, the Sugar Regulatory Authority reported the October ethanol reference price fell 19% on the year to 92 cents per liter thanks to lower molasses and sugarcane prices during the period. Even though prices fell, domestic ethanol is still roughly double the price of imported ethanol at \$469.03/cu m CIF basis. Companies are waiting for the SRA to issue import allotments for Q1 2018 as most have already used up their allotments for 2017.

Source: BiofuelsDigest, 14 November 2017

<http://www.biofuelsdigest.com/bdigest/2017/11/14/philippine-domestic-ethanol-prices-fall-19-in-october-but-still-double-imported/>

## **Vietnam: E5 bio-fuel to replace RON 92**

Vietnam will replace RON 92 petrol with E5 bio-fuel from the beginning of next year. Accordingly, the supply of RON 92 petrol will be halted in all localities across the country. This was announced by the Government Office following the latest decision passed by Deputy Prime Minister concerning the bio-fuel development project and the roadmap for shifting to bio-fuel mixed with fossil fuels. From January 1, 2018, only E5 bio-fuel and RON 95 will be produced and available for purchase. The decision is expected to facilitate petrol dealers in the trading of E5 bio-fuel, as consumers will no longer have access to RON 92 petrol. The Deputy PM also directed the Ministry of Industry and Trade (MoIT) to supervise petrol wholesalers to ensure a stable supply and quality of bio-fuel to the market. The ministry of Finance (MoF) was told to control the price of bio-fuel to avoid price increases while developing policies to avoid the monopoly of ethanol production. The MoF would cooperate with the Ministry of Agriculture and Rural Development and MoIT to build a floor buying price of cassava, the main raw material in the production of ethanol. It would also research to build and promulgate tax policies for imported ethanol to prevent monopoly of local ethanol producers.

Source: Viet Nam News, 12 June 2017

<http://vietnamnews.vn/economy/378123/e5-bio-fuel-to-replace-ron-92.html#SpaFrwDBIVKL3TCL.97>

## **Ships in India may soon run on methanol**

According to India's Minister of Road Transport and Highways ships in India may soon run on methanol.

"To cut the high cost of logistics in the country, inland waterways are being developed in a major way while methanol will soon be made the fuel for ships," the Road Transport, Highways and Shipping Minister said. "Methanol requires coal. Coal is an indigenous fuel available in AP, Maharashtra, Madhya Pradesh and Chhattisgarh," the minister said. He said exports can be increased by reducing the cost of logistics, which will, in turn, create more employment.

Link: <https://economictimes.indiatimes.com/industry/transportation/shipping-/-transport/ships-in-india-soon-may-run-on-methanol-nitin-gadkari/articleshow/60926472.cms>

## **SPOTLIGHT AVIATION**

### **About BIOREFLY**

Aviation is one of the fastest growing transport sectors and this trend will continue in the coming years. According to the International Air Transport Association (IATA), global aviation is expected to grow by 5% annually in the period up to 2030. Currently, petroleum derived liquid fuels are

the main energy carrier in the aviation sector. Due to different environmental and economic concerns there is a need for the sustainable supply of aviation fuels.

The aviation industry considers aviation biofuels to be one of the primary means to reduce the carbon footprint of the industry. In this context, the BIOREFLY project will develop lignin-to-jet fuel technologies and will also produce such bio fuels. The sustainable supply chain will be demonstrated, environmental and socio-economic impacts will be assessed and results gathered from tests in engines will be disseminated to relevant stakeholders.

Link: [www.biorefly.eu](http://www.biorefly.eu)

## SPOTLIGHT ELECTRIC VEHICLES

### ***Future of plug-in electric vehicles***

Variability surrounding future battery technology, government policies, consumer preferences, and other developments related to personal transportation markets casts uncertainty on the long-term effects that battery electric and plug-in hybrid vehicles may have on worldwide energy consumption. An article from Melissa Lynes from the U.S. Energy Administration (EIA) discusses market trends related to these PEVs and compares results from standalone runs of EIA's new International Transportation Energy Demand Determinates model to those presented in the International Energy Outlook 2017 (IEO2017). These results help quantify some of the uncertainty associated with the long-term effects that PEVs may have on energy markets.

Source: [https://www.eia.gov/outlooks/ieo/section\\_issues.php#pev?scr=email](https://www.eia.gov/outlooks/ieo/section_issues.php#pev?scr=email)

### ***Alternative fuel vehicle registrations in the EU***

In the third quarter of 2017, registrations of alternative fuel vehicles (AFVs) in the European Union continued to show strong growth, with demand increasing by 51.4% compared to last year. 211,635 alternatively-powered cars were registered over this period, accounting for 6.2% of total passenger car sales. Electrically-chargeable vehicles (ECVs) made up for 1.6% of all cars sold across the EU during the third quarter of the year.

Source: ACEA - Association des Constructeurs Européens d'Automobiles <http://www.acea.be/press-releases/article/alternative-fuel-vehicle-registrations-51.4-in-third-quarter-of-2017>  
Download: [http://www.acea.be/uploads/press\\_releases\\_files/20171108\\_AFV\\_Q3\\_2017\\_FINAL.PDF](http://www.acea.be/uploads/press_releases_files/20171108_AFV_Q3_2017_FINAL.PDF)

## IEA & IEA-AMF NEWS

### ***IEA Universal TCP Meeting***

The International Energy Agency held the second universal meeting of its Technology Collaboration Programmes (TCPs) in Paris early October to discuss ways to accelerate energy technology innovation.

The meeting brought together experts from 31 technology programmes and government officials from IEA member and partner countries. It provided a timely and strategic opportunity to review how TCPs can strengthen the IEA's efforts as a global hub for energy system transformation and



innovation.

For over 40 years, TCPs have brought together experts from the public and private sectors to share experiences in fields as diverse as ocean energy, smart grids, carbon capture and storage and hybrid and electric vehicles. Together, they have fostered technological breakthroughs as well as contributing data and expertise to IEA analysis and policy recommendations.

The TCP universal meeting included discussions around enhanced TCP-IEA collaboration, engagement with governments and the private sector, interaction with multilateral initiatives and communication. Magnus Lindgren, Chair of the AMF Executive Committee, and Dina Bacovsky, Secretary for AMF, took advantage of the opportunity to liaise with their colleagues from other TCPs and IEA during the meeting.

More: <https://www.iea.org/newsroom/news/2017/october/iea-holds-second-universal-meeting-of-its-technology-collaboration-programmes.html>

### **Advanced Motor Fuels 54<sup>th</sup> ExCo Meeting**

The 54<sup>th</sup> AMF ExCo Meeting was held 29 October – 1 November 2017 in Tsukuba, Japan. The Operating Agents of all ongoing annexes provided updates on the progress and the results of their activities. The ongoing annexes are:

- Annex 55: Real Driving Emissions and Fuel Consumption
- Annex 54: GDI Engines and Alcohol Fuels
- Annex 53-1: Sustainable Bus Systems (Phase 1)
- Annex 52: Fuels for Efficiency
- Annex 51: Methane Emission Control
- Annex 50: Fuel and Technology Alternatives in Non-Road Engines
- Annex 28: Information Service & AMF Website (AMFI)

The annex on Methanol as Motor Fuel is still finalizing administrative issues before starting its activities.

During the ExCo meeting it was decided to continue work on sustainable bus systems (Annex 53) with a focus on buses in developing countries (Annex 53 Phase 2). Chile will again serve as the Operating Agent. The envisaged work shall help developing countries to adopt more advanced standards for buses with internal combustion engines, create conditions within these countries that allow the deployment of new technologies, create regional and national R&D capacity, and develop control and compliance capacity.

Another annex proposal was kicked-off on the evaluation of heavy duty vehicles. The intention of this annex is to gather real-world fuel consumption data, as to provide better information to predict heavy-duty vehicles performance and to better understand the underlying combustion processes and emission formation dynamics in the combustion chamber.

India and Indonesia attended the meeting as observers, and India is already in the process of joining AMF.

ExCo 55 will be held May 8–11 2018 in Bangkok, Thailand.

## **IEA Bioenergy Technology Roadmap**

In November 2017, the International Energy Agency published a "Technology Roadmap: Delivering Sustainable Bioenergy", which provides the technology milestones and policy actions needed to unlock the potential of bioenergy in line with a long-term low-carbon and sustainable global energy mix.

According to the roadmap, biofuel consumption in the transport sector must triple by 2030, with two-thirds of that coming from advanced biofuels. That means scaling up current advanced biofuels production by at least 50 times to keep pace with the 2DS requirements by 2030. In scenarios with more ambitious carbon reduction objectives, such as the IEA's Beyond 2 Degree Scenario (B2DS), bioenergy linked to carbon capture and storage also becomes necessary.

The IEA's technology roadmap shows how that gap can be bridged, and highlights various areas where urgent action is needed, such as accelerating the deployment of a range of mature bioenergy solutions, which can immediately deliver multiple benefits, and enabling the deployment of the new technologies which are needed in a future low carbon energy system. In January 2017, IEA also published a How2Guide for Bioenergy, jointly developed with the Food and Agriculture Organization of the United Nations (FAO), as a toolbox that can be used for both planning and implementing new bioenergy strategies, or to improve existing ones.

Source: IEA Press release, November 2017,

<https://www.iea.org/newsroom/news/2017/november/commentary-plotting-a-path-for-greater-bioenergy-use.html>

Link: <http://www.iea.org/publications/freepublications/publication/technology-roadmap-delivering-sustainable-bioenergy.html>

## **PUBLICATIONS**

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### ***Report on the history of methanol***

Methanol use in various applications is on the raise globally and there are several examples on how methanol is used in the transport sector today. The production is comparably efficient and cost effective and there are also several examples of where methanol as fuel is under advanced testing in various, sometimes novel, types of engines.

Interest to use methanol as an automotive fuel has shifted through the past decades. A newly finished f3 project by Ingvar Landälv, Bio4Energy/LTU, has had the objective of creating a knowledge synthesis with this long term perspective in mind, and also to look forward and address methanol's potential role as energy carrier/motor fuel in Sweden (and elsewhere).

Link: [http://www.f3centre.se/sites/default/files/f3\\_2015-08\\_landalv\\_final\\_170918\\_0.pdf](http://www.f3centre.se/sites/default/files/f3_2015-08_landalv_final_170918_0.pdf)

### ***ICE vehicle energy efficiency in China***

In April, Ministry of Industry and Information Technology (MIIT), National Development and Research Commission (NDRC) and Ministry of Science and Technology (MOST) jointly issued the "Long-Term Development Plan for the Automobile Industry" reaffirming the importance of technological advancement for improving energy efficiency. During the 12th Five Year Plan (FYP), the development of new energy vehicles played an important role, as was demonstrated by economic policies (e.g. subsidies and research grants) and regulatory policies (manufacturing requirements). Yet energy efficient vehicles technologies did not keep a similar pace, perhaps partially because of the relatively non-stringent vehicle fuel consumption (FC) requirements.

According to the MIIT, 2016 Corporate Average Fuel Consumption (CAFC) memo released on April 2017, China's market reached an average of 6.56L/100km, comprised of domestic manufacturers with 6.51L/100km and imported with an average CAFC of 7.89L/100km. In comparison to last year's average of 7.04L/100km, this is a drop of 7% in corporate average fuel efficiency. Also against the 2016 target of 6.7L/100km, China's corporate auto players performed well. However, a more thorough investigation reveals issues surrounding the actual energy efficient technology improvements of China's huge ICE vehicle fleet.

This paper, published by the Innovation Center for Energy and Transportation (iCET) in June 2017, highlights several issues.

Link: <http://www.icet.org.cn/english/admin/upload/2017062257036117.pdf>

## **Zero Emission Vehicles for EU**

Decarbonising transport is central to achieving Europe's policy commitments on climate change. The transport sector is expected to deliver a 60% reduction in greenhouse gas (GHG) emissions in the EU by 2050. Achieving these commitments is expected to require a complete decarbonisation of the passenger car fleet. The more ambitious COP21 commitment to limit temperature rises to 1.5°C will demand a complete decarbonisation of transport by 2050.

EAFO, the European Alternative Fuels Observatory, which is a European Commission initiative to provide alternative fuels statistics and information (electricity, hydrogen, natural gas, LPG) has elaborated a report which is designed to help policymakers understand the impacts of a rapid transition to a zero emission car (ZEV) fleet. It considers the impacts of this transition on imported fossil fuels, GHG emissions, air quality and the overall competitiveness of EU industry.

Link: [http://www.eafo.eu/content/eafo-study-transition-zero-emission-vehicles-fleet-cars-eu-2050?utm\\_source=EAFO+Newsletter+Contacts&utm\\_campaign=c63a468877-EMAIL\\_CAMPAIGN\\_2017\\_11\\_21&utm\\_medium=email&utm\\_term=0\\_e1d782e716-c63a468877-39790617](http://www.eafo.eu/content/eafo-study-transition-zero-emission-vehicles-fleet-cars-eu-2050?utm_source=EAFO+Newsletter+Contacts&utm_campaign=c63a468877-EMAIL_CAMPAIGN_2017_11_21&utm_medium=email&utm_term=0_e1d782e716-c63a468877-39790617)

## **Trends and projections in the EU ETS in 2017**

EEA Report No 18/2017

This 2017 report of the European Environment Agency (EEA) provides an analysis of past, present and future emissions trends under the European Union (EU) Emissions Trading System (ETS), based on the latest data and information available from the European Commission (July 2017 data on verified emissions and compliance by operators under the EU ETS for the years up until 2016) and Member States (projections of EU ETS emissions until 2030, reported in 2017 under the EU Monitoring Mechanism Regulation). The report also analyses the balance between supply and demand of allowances in the market.

Source: European Environment Agency (EEA) - Publications  
<https://www.eea.europa.eu/publications/trends-and-projections-EU-ETS-2017>  
Link: [https://www.eea.europa.eu/publications/trends-and-projections-EU-ETS-2017/at\\_download/file](https://www.eea.europa.eu/publications/trends-and-projections-EU-ETS-2017/at_download/file)

## **Key World Energy Statistics 2017**

2017 marks the 20th edition of the Key World Energy Statistics (KWES) – the annual booklet of the IEA's most used statistics. This milestone's edition has been enriched with more information on energy efficiency and renewables, more geographic data and also more of the fundamental data required to fully understand energy security.

Key World Energy Statistics contains timely, clearly presented data on the supply, transformation and consumption of all major energy sources for the main regions of the world, providing everyone with an interest in energy key statistics on more than 150 countries and regions including energy indicators, energy balances, prices, RDD and CO2 emissions as well as energy forecasts

Source: International Energy Agency (IEA) Publications

<http://www.iea.org/publications/freepublications/publication/key-world-energy-statistics-2017.html>

Link: <http://www.iea.org/publications/freepublications/publication/key-world-energy-statistics-2017.html>

## **CO2-based synthetic fuels assessment**

CO2-based synthetic fuels are of increasing interest as a potential strategy to reduce petroleum consumption as well as greenhouse gas (GHG) emissions from the transportation sector. The most well-known example of CO2-based synthetic fuels is power-to-liquids. CO2-based synthetic fuels could potentially be incentivized by EU policies, in particular the recast Renewable Energy Directive to 2030 (RED II). This study aims to improve our understanding of the potential contribution that CO2-based synthetic fuels could make towards the European Union's (EU) climate mitigation goals. The total GHG impact and level of petroleum displacement that could potentially be achieved by CO2-based synthetic fuels is presented for the EU in 2030 and 2040.

Source: icct - the International Council on Clean Transportation

<http://www.theicct.org/publications/co2-based-synthetic-fuel-assessment-EU>

Link: [http://www.theicct.org/sites/default/files/publications/CO2-based-synthetic-fuel-EU-assessment\\_ICCT-consultant-report\\_14112017\\_vF\\_2.pdf](http://www.theicct.org/sites/default/files/publications/CO2-based-synthetic-fuel-EU-assessment_ICCT-consultant-report_14112017_vF_2.pdf)

## **Indirect market impacts of using molasses**

The European Commission has proposed adding molasses to a list of advanced biofuel feedstocks eligible for support in the 2021-2030 timeframe under the recast Renewable Energy Directive. Final stage molasses resulting from multiple steps of sugar refining is not typically used for food, and so its use in biofuel would not directly impact food markets. However, molasses is currently used in livestock feed, yeast production, and other applications. If it is diverted to biofuel production, other materials must replace it in producing feed, yeast, etc.

This study assesses the indirect market impacts and resulting greenhouse gas (GHG) emissions from using molasses for biofuel. An overview of sugar refining and the current molasses market is provided. This informs a displacement analysis assessing the indirect GHG emissions resulting from a diversion of molasses from its current uses. These results are discussed in the context of a literature review on previous lifecycle assessments of molasses biofuel and the GHG reduction goals of EU renewable fuels policy.

Source: icct - the International Council on Clean Transportation

<http://www.theicct.org/publications/indirect-greenhouse-gas-emissions-molasses-ethanol-european-union>

Link: [http://www.theicct.org/sites/default/files/publications/EU-molasses-ethanol-emissions\\_ICCT-working-paper\\_27092017\\_%20vF.pdf](http://www.theicct.org/sites/default/files/publications/EU-molasses-ethanol-emissions_ICCT-working-paper_27092017_%20vF.pdf)

## EVENTS

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Fuels of the Future 2018, 22-23 January 2018, Berlin, Germany

Conference website: <http://www.fuels-of-the-future.com/>

National biodiesel Conference and Expo, 22-25 January 2018, Fort Worth, Texas, USA

Conference website: <http://www.biodieselconference.org/splash.aspx>

Lignofuels 2018 – Advanced Biofuels & Materials, 7-8 February 2018, Amsterdam, Netherlands

Conference website: <http://www.wplgroup.com/aci/event/lignocellulosic-fuel-conference-europe/>

RFA National Ethanol Conference, 12-13 February 2018, San Antonio, Texas, USA

Conference website: <http://www.ethanolrfa.org/event/rfa-national-ethanol-conference-2018/>

Sugar & Ethanol Asia, 6-8 March 2018, Bangkok, Thailand

Conference website: <https://energy.knect365.com/sugar-ethanol-asia/>

EU-India conference on Advanced Bio Fuels, 7-8 March 2018, New Delhi, India

Registration: <https://ec.europa.eu/eusurvey/runner/EUINDIAConferenceBiofuels2018>

The Integer Emissions Summit & AdBlue® Forum Asia Pacific, 14-15 March 2018, Tokyo, Japan

Conference website: <https://www.integer-research.com/conferences/ies-apac-2018/>

Transport Research Arena 2018, 16-19 April 2018, Vienna, Austria

Conference website: <http://www.traconference.eu/>

8th European Algae Industry Summit, 25-26th April 2018, Vienna, Austria

Conference website: <http://www.wplgroup.com/aci/event/european-algae-industry-summit/>

Sugar & Ethanol Brazil, 25-27 April 2018, Sao Paulo, Brazil

Conference website: <https://energy.knect365.com/sugar-ethanol-brazil/>

2018 JSAE Annual Congress (Spring), 23-25 May 2018, Yokohama, Japan

Conference website: <http://www.jsae.or.jp/2018haru/english/index.html>

Integer Emissions Summit & AdBlue® Forum China, 5-7 June 2018, Beijing, China

Conference website: <https://www.integer-research.com/conferences/ies-china-2018/>

Fuel Ethanol Workshop & Expo, 11-13 June 2018, Omaha, Nebraska, USA

Conference website: <http://www.fuelethanolworkshop.com/ema/DisplayPage.aspx?pageId=Home>

Advanced Biofuels Conference, 11-13 June 2018, Omaha, Nebraska, USA

Conference website: <http://www.advancedbiofuelsconference.com>

Integer Emissions Summit & AdBlue® Forum Europe 2018, 26-28 June 2018, Brussels, Belgium

Conference website: <https://www.integer-research.com/conferences/integer-emissions-summit-adblue-forum-europe-2018/>

JSIE/SAE 2019 International Powertrains, Fuels and Lubricants Meeting, 26-29 August 2019, Kyoto, Japan

Conference Website: <http://pfl2019.jp/overview.html>

## 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 Manfred WÖRGETTER, BIOENERGY 2020+. It is edited by Dina Bacovsky and Martina Meirhofer, BIOENERGY 2020+. 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, see contact information below.

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