

BIOFUELS EQUIPMENT DIRECTORY 2018

This is the 4th edition of the biofuels equipment directory. It is a listing of technology suppliers that serve the producers of liquid and liquefied transportation biofuels and renewable fuels such as ethanol, biodiesel, HVO, biojet along with bio-oils and marine biofuels. It is though by no means complete as the number of companies entering this sector is increasing. Not on the list? Then let us know.



EUROPE'S ETHANOL INDUSTRY BOOSTS OUTPUT OF LOW-CARBON FUEL AND HIGH-PROTEIN FEED

European renewable ethanol association (ePURE) members produced 5.84 billion litres of ethanol and 5.71 million tonnes of beneficial co-products in 2017, according to new audited data released by the industry group.

According to ePURE, some 81 percent of the total 5.84 billion litres of ethanol output produced by its members was for fuel use, with an average of more than 70 percent greenhouse-gas (GHG) savings compared to petrol in 2017.

Ethanol's GHG-reducing performance increased for the sixth year in a row as the sustainability of European renewable ethanol continues to improve – jumping by more than 4 percentage points over 2016. Of the rest of the ethanol production in 2017, 10 percent was for industrial use and 9 percent for food and beverages.

– European renewable ethanol keeps building on its importance as a clean-mobility solution. Every year, ethanol improves its greenhouse-gas-reduction score, reaching more than 70 percent on average in 2017 compared to fossil fuel, said Emmanuel Desplechin, Secretary-General of ePURE.

Virtually all of the feedstock used to produce renewable ethanol by ePURE members – including cereals, sugars, wastes, and residues – was grown or sourced in Europe. Along with the fuel, ePURE members' ethanol refineries also produced 5.71 million tonnes of co-products, including 4.32 million tonnes of animal feed and 0.77 million tonnes of captured carbon dioxide (CO₂).

– Last year's Renewable Energy Directive (RED) confirmed European ethanol's status as a good biofuel – one that will be vital to achieving European climate and energy goals. Also, the new data show ethanol production is an important source of animal feed at a time when the EU is trying to reduce its need to import protein, Desplechin said.

According to a new study from Ricardo Energy & Environment, Europe's push to decarbonise road transport would benefit significantly from the use of low-carbon fuels such as renewable ethanol, especially with a high percentage of cars with internal combustion engines still on Europe's roads for decades.

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Abengoa Bioenergy	www.abengoa.com
Advanced Analytical Technologies Inc	www.aati-us.com
Aemetis Inc	www.aemetis.com
AgrenNewEnergyBV	www.agrennewenergy.com
Agri-Tech Producers LLC	www.agri-techproducers.com
Agroenergy S.A.	www.agroenergy.gr
Airex Energy	www.airex-energy.com
Albemarle	www.albemarle.com
Ambient Energy LLC	www.ambientnrg.com
Andritz AG	www.andritz.com
Anyang Gemco Energy Mashinery Co. Ltd	www.agitc.cn
APJ GmbH	www.apj-gmbh.de
Ayerbe Plantas Industriales de Secado S.L.	www.apisa.info
Baker-Rullman Manufacturing, Inc.	www.baker-rullman.com
Balcke-Dürr GmbH	www.balcke-duerr.de
BB-Diesel	www.bb-diesel.com
BDI - BioEnergy International AG	www.bdi-bioenergy.com
Biochar Sololutions Inc	www.biocharsolutions.com
Biofuel Systems Group Ltd	www.biofuelsystems.com
BioLet SA de CV	www.biolets.com
Biomass Briquette Systems, LLC	www.biomassbriquettesystems.com
Biopolis S.L.	www.biopolis.es
Bright Biomethane	www.brightbiomethane.com
Bruker Optics Ltd	www.bruker.com
BTS Biogas Srl GmbH	www.ts-energygroup.com
Bühler Aeroglide	www.aeroglide.com
Büttner Energie- und Trocknungstechnik	www.buettner-energy-dryer.com
C.R.S.I. SA Centro Ricerche Sviluppo Impianti	www.crsi.ch
Chempolis OY	www.chempolis.com
CherkassyElevatorMash BRONTO	www.brnto.ua
Ciba Specialty Chemicals	www.ciba.com/biodiesel
Clarehill Plastics Ltd	www.clarehill.com
Clariant Produkte GmbH	www.clariant.com
CRI Catalyst Company	www.cricatalyst.com
Cryo Pur	www.cryopur.com
D3Max	www.d3maxllc.com
De Smet Engineers & Contractors SA	www.dsengineers.com
Dieffenbacher	www.dieffenbacher.com
Dryer One	www.dryer-one.be
DSM Bio-based Products & Services B.V.	www.dsmbiogas.com
DuPont Industrial Biosciences	www.biosciences.dupont.com
ElectraTherm Inc	www.electratherm.com
Energy Unlimited	www.EnergyUnlimitedInc.com
Enerkem	www.enerkem.com
EnviTec Biogas AG	www.envitec-biogas.de
ETIA	www.biogreen-energy.com
Eurotank Environmental Ltd	www.eurotank.eu.com
EWK Umwelttechnik GmbH	www.ewk.de
Evonik Industries AG	www.evonik.com
Fagen Inc.	www.fageninc.com
FiveBarGate Consultants Ltd	www.5barg8.com
Fortum Corporation	www.fortum.com
Foss UK	www.fossanalytics.com
Fulcrum BioEnergy, Inc.	www.fulcrum-bioenergy.com
GEA Group Aktiengesellschaft	www.gea.com
Gevo	www.gevo.com
Global Bioenergies	www.global-bioenergies.com
Gongyi Xiaoyi Mingyang Machinery Plant	www.mingyangmachinery.com
Green Catalysts Inc	www.greencatalysts.com



Biomethane reaches 90% share in Swedish vehicle gas

The proportion of biomethane in vehicle grade gas at Swedish refueling stations continues to increase. New figures from Statistics Sweden for the first half of 2018 show that the renewable share in vehicle gas is just over 90 percent. In addition, new car registrations for July suggests that the government's introduction of "bonus-malus" environmental rules for new vehicles may already have had a positive effect on natural gas vehicle (NGV) sales.

Statistics for the first half of 2018 released by Statistics Sweden on August 17 show that the proportion of biomethane (also known as green gas or renewable natural gas – RNG) in vehicle gas sold to motorists at filling stations is at 90.8 percent, up almost 4 percent compared to the full year 2017 and up almost 8 percent on 2016.

A bonus effect of bonus-malus?

Furthermore, new car registrations for July indicate that the government's new "bonus-malus" emission rules for new vehicles that came into effect July 1 is already having a positive effect on gas powered vehicle (NGV) sales.

Under the new regulation, new (2018 model year) vehicles – passenger cars, vans, minibuses, and motorhomes – registered from July 1 and that have tailpipe carbon dioxide (CO₂) emissions of 60 g per km or less can receive up to SEK 60 000 (≈ EUR 5 726) bonus whereas vehicles that emit 95 g CO₂ per km or more receive a "malus" in the form of increased road tax for the first three years.

NVGs qualify for a SEK 10 000 (≈ EUR 955) "bonus" and in July, 290 new NGVs were registered up 84 percent compared to 158 in July 2017.

Continued environmental tax exemption to end of 2020

In addition, the EU Commission has approved a request from the Swedish authorities for an extension of the existing tax exemption scheme for certain renewable fuels used for heat generation until the end of 2020. First introduced in 2007, the Commission had approved an extension in 2012 until the end of this year. The new extension approval is until the end of 2020.

Both energy tax and carbon tax are environmental taxes. Reduction or exemption from taxes may be designed to constitute measures as state aid. The aid may only compensate for additional costs for biofuel production in relation to the fossil fuel being replaced and must be approved by the Commission prior introduction to ensure that the beneficiaries are not overcompensated.

The decision is in line with the Commission's guidelines for state aid for environmental protection and energy for 2014-2020 (EEAG) and means that certain taxable biofuels, including biogas, will continue to be exempt from energy taxes and carbon tax when used for heat production. Biogas used as a transportation fuel is not affected as this is already covered in another approved scheme until the end of 2020. Proposals for biogas tax regulations for the period after 2020, both as heating and transportation fuels, will be investigated in the state biogas inquiry that was launched just before the summer.

Text & photo: Alan Sherrard

Henan SINOVO Machinery Engineering Co	www.simecplant.com
Henan Sunrise Import And Export Trading	www.sunrisesrs.cn
Hennlich s.r.o.	www.hennlich.cz
Hi-Tech Agro Projects Pvt. Ltd.	www.hitechagro.org
Inaeris Technologies, LLC	www.inaeristech.com
Infineum	www.infineum.com
Instalmec s.r.l.	www.instalmec.it
Intelscan ehf	www.intelscan.is
Joule	www.jouleunlimited.com
KMPT AG	www.kmpt.com
L.Sole S.A	www.lsole.com
Laizhou Chengda Machinery Co., Ltd.	www.lzchengdamachine.com.cn
Law-Denis Engineering Ltd	www.law-denis.com
Liaoning Modern Agricultural Machine Equip.	www.lnxdnj.cn
M-E-C Company	www.m-e-c.com
Maguin S.A.S	www.maguin.com
MAN Diesel & Turbo SE	www.dieselturbo.man.eu
Moret Industries Group	www.moretindustries.com
New eco-tec Verfahrenstechnik	www.new-eco-tec.com
Novozymes A/S	www.novozymes.com
Opcon Bioenergy AB	www.opcon.se
Petkus Technologie GmbH	www.petkus.de
Pilum AB	www.pilum.se
Praj	www.praj.net
Qalovis GmbH	www.qalovis.com
Radscan Intervex AB	www.radscan.se
Recalor S.A	www.recalor.com
Renmatrix	renmatrix.com
Riela Karl-Heinz Knoop e.K	www.riela.de
Savon Siemen OY	www.savonsiemen.com
Saxwerk AB	www.saxwerk.se
Seting Inženjering d.o.o.	www.seting-inzenjering.hr
Siempelkamp Maschinen- und Anlagenbau	www.siempelkamp.com
SolaGen Inc	www.solageninc.com
St1	www.st1.se
Stela Laxhuber GmbH	www.stela.de
Strateco AB	www.strateco.se
Sugimat S.L.	www.sugimat.com
Swedish Exergy AB	www.swedishexergy.com
Swiss Combi - W.Kunz dryTec AG	www.swisscombi.ch
Taurus Energy AB	www.taurusenergy.eu
Terruzzi Fercalx SpA	www.terruzzifercalxgroup.com
Tranter International AB	www.tranter.com
Triogen	www.triogen.nl
TSI Inc	www.tsi-inc.net
UAS Canada Inc	www.uas.bc.ca
UPM-Kymmene Corporation	www.upm.com
Valmet	www.valmet.com
VetterTec GmbH	www.vettertec.de
WAM Group S.p.A	www.wamgroup.com
Wyssmont Inc	www.wyssmont.com
Wärtsilä Corporation	www.wartsila.com
Xuzhou Orient Industry Co. Ltd	www.orient-biofuel.com
ZeaChem Inc.	www.zeachem.com
Zhengzhou Alliance Trading Co., Ltd.	www.alliance.com.cn
Zhengzhou Whirlston Trade Co., Ltd.	www.whirlstonmachinery.com
Zuccato Energia Srl	www.zuccatoenergia.it

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Note that the information used comes from the companies or from their web pages. In many cases a company also can supply other equipment and/or services. This is easy to check if needed because all web pages are presented in the table and of course the links are working on the online pdf file version.