



**IEA Bioenergy**  
*Technology Collaboration Programme*

## Workshop

# Technology advances in liquid biofuels and renewable gas

Vienna, Monday 17 October 2022



© Patrick Greimeister , picture taken from the workshop venue

Workshop organized by IEA Bioenergy in collaboration with the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) and BEST - Bioenergy and Sustainable Technologies GmbH

## INTRODUCTION

Both the accelerating climate change as well as the energy crisis related to the war in Ukraine, call for urgent action to move away from fossil fuels such as oil and gas. Energy savings and renewable energy are the key tools to achieve that. Renewable transport fuels and renewable gases will need to have an increasing role in the transport system and the gas distribution system. A strong growth in so-called 'advanced technologies' will be required, starting from a variety of feedstocks, particularly underutilised heterogeneous biomass resources. Meanwhile, increasing prices for oil and gas have totally changed the picture and prospects of renewable fuels compared to one or two years ago.

The workshop will explore the advances being made in biofuels technologies, as well as technologies to produce renewable gas (biomass based), and will discuss what is needed to accelerate their roll out to the market.

The workshop will contain three parts: the first session will consider advances in renewable gas / biomethane, the second liquid biofuels, and the third session will go into concrete developments in Austria.

Aim of the workshop:

- Get an insight of developments that can be expected for liquid biofuels and renewable gases
- Discuss what is needed to accelerate their deployment

The workshop will be in hybrid form, meaning that both on-site and online participation will be possible. There is room for around 100 participants in Vienna.

Some of the presentations will also be remote.

## PROGRAMME

Status 1 September 2022

### 8.45 Registration

### 9.00 Welcome, introduction and keynotes

- Paul Bennett, IEA Bioenergy / Scion (New Zealand)
- Representative of the Austrian Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)
- Maria Georgiadou, European Commission, DG Research & Innovation

### 9.35 Renewable Gas

*Moderators: Jan Liebetrau, Ryttec (Germany) & Berend Vreugdenhil, TNO (Netherlands)*

#### *Technology Developments*

- Robert Böhm, Hitachi Zosen Inova Schmack (Germany): Biological methanation / Power to Methane
- Philippe Lehmann, CO2 Energie AG (Switzerland): CO2 separation from biogas upgrading
- Heather Wray, TNO (Netherlands): pretreatment step of wet and complex biomass for gasification
- Marion Maheut, ENGIE (France): production of SNG from dry biomass and waste pyrogasification - *tbc*

### 10.45 Tea/Coffee

### 11.15 Renewable Gas - continued

*Panel discussion: What is needed to accelerate the deployment of renewable gases?*

- Günter Pauritsch, Austrian Energy Agency
- Uwe Fritsche, IINAS (Germany)
- Henrik Thunman, Chalmers University (Sweden)
- Andreas Wolf, AGCS (Austria)
- Giulia Cancian, European Biogas Association (Belgium)

### 12.15 Lunch break

### 13.15 Liquid biofuels

*Moderators: Glaucia Souza, University of São Paulo (Brazil) & Jim Spaeth, US DoE*

#### *Technology Developments*

- Mathieu Morin, IFP (France): BioTfuel Technology, transforming lignocellulosic biomass into biofuel via thermochemical conversion – *tbc*
- Elyas Moghaddam, Gidara Energy (Netherlands): gasification of biomass/waste to methanol
- Ralf Hortsch, Clariant (Germany): SunLiquid technology – further developments in cellulose ethanol
- Mallikarjun Navalgund, Praj (India): integrated second generation (2G) bio-refinery
- Steve Rogers, Licella (Australia): the Cat-HTR platform to produce drop-in biofuels

### 14.30 Tea/Coffee

### 14.45 Liquid biofuels – continued

*Panel discussion: What is needed to accelerate the deployment of advanced biofuels?*

- Tomas Ekbohm, Svebio (Sweden)
- Jack Saddler, UBC (Canada)
- Patrik Klintbom, RISE / ETIP Bioenergy (Sweden)
- Li Fuli, Qingdao Institute of Bioenergy and Bioprocess Technology (China)
- Shri Sunil Kumar, Min. Petroleum & Gas (India)

### 15.45 Tea/Coffee

### 16.00 Developments in Austria

*Moderators: Dina Bacovsky (BEST), Hannes Bauer (BMK)*

- Bernhard Drosch, BEST: Bio-electric syngas technology for the production of biomass derived fuels and platform chemicals
- Josef Schuberth, Agrana : Circular Economy in the Biorefinery Pischelsdorf
- Petra Wollboldt, AustroCel Hallein: 2G-BioEthanol by utilization of wood sugars- the AustroCel BioRefinery
- Andreas Werner / Gabriela Maria Straka, Göss / Brau Union Österreich: The world's first large-scale green brewery

### 17.00 Highlights and conclusions

*Luc Pelkmans, Technical Coordinator, IEA Bioenergy*

### 17.15 Reception

## PRACTICAL INFORMATION

### Date:

Monday 17 October 2022, 8.45-17.15 CEST

### Meeting location:

The event will take place at the Plus-Energy-Building of the Technical University of Vienna, on the 11<sup>th</sup> floor, with a beautiful view over the city. You can also join online via live stream.

### Address:

TUtheSky, Getreidemarkt 9, 1060 Vienna, Austria



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### Participation:

Participation to the workshop is free of charge, but pre-registration is required via:

<https://nachhaltigwirtschaften.at/en/iea/events/2022/20221017-iea-bioenergy-exco-workshop-technology-advances-in-liquid-biofuels-and-renewable-gas.php> .

Please indicate if you will participate on-site in Vienna, or if you would like to connect online and follow the live stream. There is room for around 100 participants in Vienna.

### Hotel suggestions:

- [Hotel Capricorno](#) (10% discount with promotion code "IEABIOENERGYEXCO90"). Please use [this booking link](#) to place your reservation.
- [Hotel am Parkring](#) (10% discount with promotion code "IEABIOENERGYEXCO90"). Please use [this booking link](#) to place your reservation.

Further options for accommodation can be found at <https://www.wien.info/en/travel-info/hotels-387626>

### More information:

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