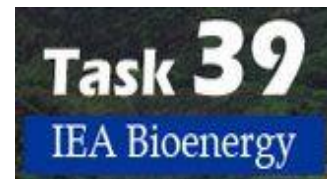




IEA Bioenergy
Technology Collaboration Programme



Update on Biofuels Demonstration Plants website

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BEST - Bioenergy and Sustainable Technologies
Task 39 Business Meeting, 21/04/2021

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Status of website - Progress

- Continuous integration of new information
- Annual update:

Information check and update from task delegates from Australia, Austria, Brazil, Canada, Denmark, Germany, India, Japan, Switzerland and Sweden

- Update of existing entries
- addition of new facilities

- Website and database maintenance

- Layout front page
- Filtering of products (output) possible

This database has been elaborated and is maintained by **BEST** Bioenergy and Sustainable Technologies

Database on facilities for the production of advanced liquid and gaseous biofuels for transport

Task 39
IEA Bioenergy

Filter Projects

Search Owner/Name/Input Submit

ID	Owner	Name	Location	Info
3726	Aarhus University	Center for Biorefining Technologies	Denmark	Info
3167	Abengoa Bioenergy Biomass of Kansas, LLC	commercial	United States	Info
3717	Advanced Biofuels Solutions Ltd	Swindon Advanced Biofuels Plant	United Kingdom	Info
3777	Advanced Plasma Power Ltd	BioSNG pilot plant	United Kingdom	Info
3221	Aemetis	pilot	United States	Info
3774	Aemetis	Aemetis Commercial	United States	Info
3273	AlphaJet Inc.	AlphaJet Pilot Plant	United States	Info
3904	ALTACA ENERGY	ALTACA ENERGY	Turkey	Info
3715	American Process	Thomaston GP3+ Biorefinery	United States	Info
3713	American Process	Alpena Biorefinery	United States	Info

Map

Legend: operational (green dot), under construction (orange dot), planned (red dot), non operational (blue dot), no status (grey dot)

Status of Demoplants Database

- ~280 entries currently active
- Technologies covered:
 - gasification
 - fermentation
 - hydrotreatment
 - fast pyrolysis
 - hydrothermal liquefaction
 - lignin depolymerisation
- update with support of task members:
 - 130 entries updated
 - 60 newly created (including SAF, HVO, some efuels, some older plants)
 - Following countries still need to be updated: China, Finland, France, Israel, Italy, Netherlands, Norway, Poland, Singapore, Slovakia, South Africa, Spain, Turkey, UK, USA

Fermentation - ethanol and cellulosic ethanol production

- 47 operational plants or under construction (TRL 6-9)
- 13 facilities planned
- Different production routes:
 - Fermentation of lignocellulosic material to ethanol
 - Gasification of lignocellulosic material and fermentation of syngas to ethanol
 - Flue gas fermentation to ethanol
 - Brown liquor fermentation to ethanol
- E.g. Denmark: RE Energy plans reopening of former Inbicon plant in 2022, 35,000 t/a lignocellulosics

Gasification

- 10 operational plants, under construction or commissioning (TRL 6-9)
- 13 facilities planned
- Different input material:
 - Municipal solid waste, wood and crop residues, non-recyclable plastics, ...
- Different products:
 - Clean Syngas, FT-Liquids, Jet fuel components, methanol, hydrogen, SNG
- E.g. US: Fulcrum Bioenergy Centerpoint - Waste gasification and FT Synthesis planned for 2023, 700,000 t/a waste

Renewable Diesel (HVO)

16 plants operational or under construction (TRL 6-9)

10 plants planned



operational | under construction | planned | non operational | no status

Owner	Name	Location
Cepsa	Cepsa 2	Spain
Diamond Green Diesel	Diamond Green Diesel	United States
Eni	Gela	Italy
ENI	HVO	Italy
Neste	Singapore expansion	Singapore
Neste	Porvoo 1	Finland
Neste	Rotterdam	Netherlands
Neste	Singapore	Singapore
Neste	Porvoo 2	Finland
Preem	Preem HVO 2015	Sweden
REG Geismar	Geismar Project	United States
SunPine	SunPine HVO addition	Sweden
SunPine	SunPine HVO 100 mio litres	Sweden
Total	La Mede	France
UPM Biofuels	UPM Lappeenranta biorefinery	Finland
World Energy	Paramount	United States

Sustainable Aviation Fuels

SAF other technologies
than hydrotreatment:
1 operational
8 planned

SAF plants using
Hydrotreatment:
6 planned

Owner	Name	Location	
Fulcrum Bioenergy	Japan	Japan	Info
Fulcrum Bioenergy	Chicago	United States	Info
Fulcrum BioEnergy	Fulcrum NorthPoint	United Kingdom	Info
Gevo	Luverne	United States	Info
Gevo	Silsbee	United States	Info
Gevo	Net-Zero 1	United States	Info
LanzaJet	FLITE	Netherlands	Info
LanzaJet	Freedom Pines	United States	Info
Velocys	Altalto	United Kingdom	Info

Owner	Name	Location	
Phillips 66	Rodeo Renewed	United States	Info
Preem	Preem HVO diesel and biojet	Sweden	Info
SkyNRG	DSL-01	Netherlands	Info
St1	St1 HVO	Sweden	Info
Total	Grandpuits	France	Info
World Energy	Paramount Expansion	United States	Info

Planned activities

- Integration of Co-processing plants (like OMV, Helpe)
- Integration of E-Fuels (hybrids with biomass and green hydrogen)
- Increase of visibility in next triennium -
 - e.g. Report on the status of advanced biofuels facilities (additional budget necessary)

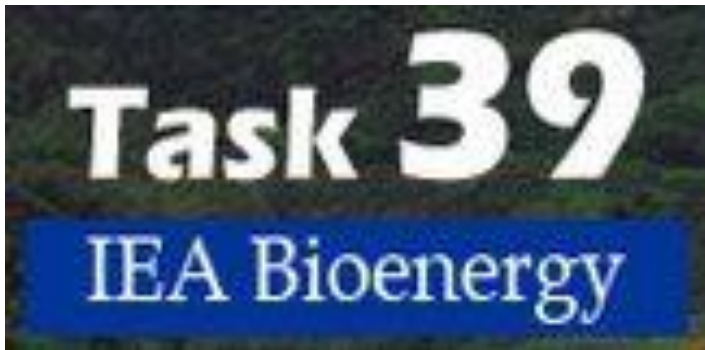
Thank you

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