

IEA Bioenergy

Task42 Biorefining in a
Future BioEconomy

Updates Denmark

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Policy update 1

New Danish energy agreement for 2020-2030 (Passed June 2018) - The agreement is focused on energy for heat and power – transport sector 7 lines out of 19 pages!

- Target is 55% of all energy from renewable sources by 2030
- Heavily focused on RE from wind – one new off-shore wind park in before 2027 (800 MW) and three new parks in total before 2030. Target is 100% of electricity form RE before 2030.
- Reducing the use of biomass for energy (Heat and power) = more biomass for biorefining or less biomass import?
- Currently large economical support for biogas (electricity), but will be gradually reduced. But support for upgrade facilities for transport and industrial uses. Policy is still to expand the biogas production.
- Transport – “work on setting ambitious targets for CO₂ emissions from heavy vehicles”. Allocate funding to “support green mobility” - to be specified autumn 2018, but nothing has happened!
- Increase the funding available for Energy Research to a total of 580 million DKK/yr by 2020 (just back to level before recent years cut back)



Policy update 2

Climate policy – Government presented plans in autumn 2018 (plans – not decided yet)

- Ban for sale of diesel and gasoline cars by 2030 and hybrids from 2035
- Ambition is 1 million electrical vehicles by 2030
 - Current car fleet 2.6 million, statistically 44% of current fleet will still be in use by 2030)
 - New car sale first quarter 2019 – 34000 diesel/gasoline, 500 electrical, 750 hybrid
- From 2020 all new busses should be climate friendly, e.g. electrical, biogas or biofuels
- Increase use of biofuels (ethanol, biodiesel) according to EU directives
 - Increase from current 5.75% to 8% in 2020, mandate on 0.9% advanced biofuels from 2019 - but from where?

Election in June and climate is high on the agenda = all parties try to imply they will do more! Most focus is on electrification, and biofuels is very little discussed, expect for aviation.



Biorefinery related updates

- The National Bioeconomy Panel released in 2018 the report “Proteins for the future”, focusing on protein from e.g. green biomass.
<https://mfvm.dk/miljoe/anbefalinger-om-biooekonomi/>
- Based on this the Ministry of Environment and Food prepared an “Action plan for new sustainable protein”. Among the aims are:
 1. Within 5 years to have Danish commercial production of protein from sustainable feedstocks
 2. To substitute up to 1/3 of currently imported protein within “near future”
- The Bioeconomy Panel is now drafting a new report with recommendations for biobased polymers



Biorefinery related updates

- Haldor Topsøe has on collaboration with Braskem started a pilot scale plant to validate the MOSAIK sugar-to-biochemicals process.
- MOSAIK – Monosaccharide Industrial Cracker
- The plant has been in operation since March 1st
- It will demonstrate the process of converting sugar into monoethylene glycol (MEG) in a two step process
- The pilot plant is located at Haldor Topsøe in Lyngby, Denmark
- The unit is expected to produce 100 tonnes of glyceraldehyde, which is precursor for MEG



Conference in June

Programme

Circular Bioeconomy Days


- new protein sources for Europe

- How do we develop a circular bioeconomy, which supports a general sustainable development?
- What are the prerequisites for and the implications of the European protein strategy?
- What are the new protein sources for Europe?

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Grand opening of demonstration scale Green Biorefinery

25-27 June at Aarhus University, Foulum, Denmark

 **CBIO**
AARHUS UNIVERSITY CENTRE FOR
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<http://conferences.au.dk/circularbioeconomydays2019/about-circular-bioeconomy-days/>

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