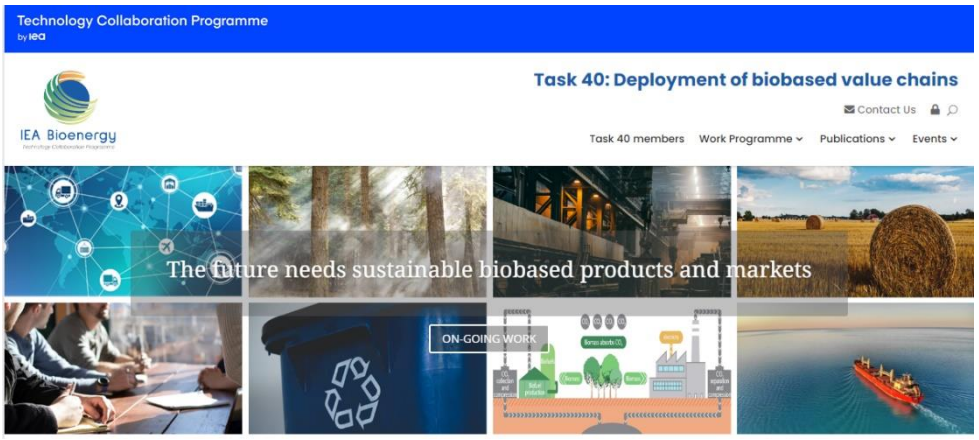
Dear recipient

13.06.2024

With this third newsletter we aspire to provide Danish stakeholders access to knowledge from other IEA Bioenergy Task 40 member countries regarding developments in biomass trade, and the emergence and design of efficient value chains for biomass utilisation, particularly in terms of biomass deployment into new markets and sectors.

The newsletter, which is published in both Danish and English, will typically report on relevant activities such as Task 40 meetings, workshops, and publications, with focus on areas of particular interest for Danish stakeholders.



For more information on IEA Bioenergy[i], the specifics of Task 40[ii], or the various other IEA Bioenergy tasks, please see issue 1[iii] of this newsletter.

EUDP supports the work of individual tasks by paying the IEA Bioenergy task fee, as well as subsidising the work carried out by the Danish country representative, which for Task 40 is Christian Bang of Ea Energy Analyses.

New Task 40 publications

Since the last newsletter, several reports have been published with contributions from Task 40. A couple of these are:

Inter-task project Deployment of BECCUS value chains August 2023**:** BECCUS and flexible bioenergy – finding the balance[iv]. In this system study, the two important technologies, flexible bioenergy and BECCS (bioenergy with carbon capture and storage) were in focus. As the business models for the provision of flexible bioenergy and BECCS/U are of different natures, it must be governed which role each of the technologies are going to play within the energy system and further within climate policy making. In particular, the report discussed the implications of the interaction of both technologies on the overall energy system.

Inter-task project Assessment of successes and lessons learned for biofuels deployment. September 2023**:** Sustainable biomass supply chains for international markets [v]. The report presents case studies for feedstock supply chains that have been evaluated from multiple viewpoints, as these are vital for successful development of advanced biofuels. It highlights lessons from biorefineries and pulp mills using short rotation wood fibre crops (Brazil), European experiences in development of bio-based supply chains for torrefied woody biomass, pioneer biorefineries in the US (traditional feedstock pre-processing for herbaceous feedstocks) and conceptual depots producing conversion-ready feedstock and co-products.

Task 40 events

WS30: Bioenergy in a Net Zero Future. Lyon, 19 October 2023 – Workshop organized by IEA Bioenergy in collaboration with ADEME, the French Agency for Ecological Transition.

The workshop[vi] discussed the role of bioenergy in the transition to a carbon neutral energy system. In the morning sessions, the focus was on policies and strategies to support the role of bioenergy in the energy transition. The afternoon sessions considered the flexibility of bioenergy in the energy system, the use of biogenic CO_2, and promising developments in bioenergy concepts. A recording of the workshop, and the various presentations can be found on the website. In addition, key messages from the workshop, as outlined in the summary report[vii] from the workshop, were:

- Modern bioenergy is one of the pillars of the energy transition.
- A reduced contribution of bioenergy - i.e. below current levels – would cause dramatically increasing system costs to achieve the 2050 climate targets.
- Feedstock mobilization is one the main challenges for bioenergy deployment.
- Given limits on sustainable biomass, implementation of CO_2 capture (BECC) strongly enhances the carbon efficiency and value of biomass towards net zero energy systems.
- The growing demand for e-fuels in the long term will require substantial amounts of biogenic CO_2 (from bioenergy systems) or atmospheric CO_2 (captured through DACC), with biogenic CO_2 being much less costly or energy intensive.
- Reaching net zero by 2050 and net negative GHG emissions thereafter requires high amounts of carbon dioxide removal (CDR) from the atmosphere.

Expert workshop – Exploring flexibility from renewable hydrogen and bioenergy in energy systems modelling. Torino, 17 November 2023, the workshop was organised by IEA Bioenergy Task 44 Flexibility and System Integration, ITP Synergies green hydrogen and biobased value chains, and IEA Energy Technology Systems Analysis Program (ETSAP).

The objective of this IEA Bioenergy, IEA ETSAP and IEA Hydrogen collaboration was to exchange modelling experiences and perspectives on the multi-faceted aspects of flexibility. The half-day workshop[viii] set the scene for the discussion and joint planning of a webinar on modelling the impacts of flexibility.

Upcoming events

Webinar on Utilisation and storage of captured biogenic CO_2 - Deployment in selected EU countries. Online, 17 June 2024. The online webinar is part of the Management of Biogenic CO_2: BECCUS Inter-task Phase 2 project[ix] (BECCUS 2.0 project).

A number of full-scale BECCUS projects have recently been initiated, with the majority of these projects being focused on CO_2 storage. Just a few years ago, some of the actors involved in these same projects were more focused on potential utilisation of the captured CO_2 rather than storage. Organised by Task 40, the webinar attempts to shed light on the driving factors behind this shift, by focusing on recent BECCUS deployment in Sweden, the Netherlands, and Denmark.

Information on registration for online participation can be found here[x].

Newsletter subscription and feedback

One of the main responsibilities for the Danish country representative is to disseminate relevant Task 40 news to Danish stakeholders. Stakeholders are also encouraged to provide feedback to Christian Bang in terms of desired focus areas or developments in the Danish deployment of biobased value chains (see contact details below).

Should you have colleagues or partners who might be interested in receiving this newsletter, you are very welcome to forward this link[xi], where they can sign up.

If you no longer wish to receive this newsletter, please contact Christian Bang at cb@eaea.dk, or via +45 60 39 17 17.

Links:

[i] https://www.ieabioenergy.com/
[ii] https://task40.ieabioenergy.com/
[iii] https://www.ea-energianalyse.dk/wp-content/uploads/2022/04/Task-40-Newsletter_UK_2022_03_31_issue-1.pdf
[iv] https://task40.ieabioenergy.com/wp-content/uploads/sites/29/2023/10/Hennig-Olsson-2023-Bio-CCUS-and-flexibility_final_for-upload.pdf
[v] https://task40.ieabioenergy.com/wp-content/uploads/sites/29/2023/09/IEAB-Inter-Task-Report-Success-Stories-WP4_Task-40_Sep-2023.pdf
[vi] https://www.ieabioenergy.com/blog/ieaevent/ws30-bioenergy-in-a-net-zero-future/
[vii] https://www.ieabioenergy.com/wp-content/uploads/2024/01/ExCo92_Workshop-Summary.pdf
[viii] https://www.ieabioenergy.com/blog/ieaevent/expert-workshop-exploring-flexibility-from-renewable-hydrogen-and-bioenergy-in-energy-systems-modelling/
[ix] https://www.ieabioenergy.com/blog/task/management_of_biogenic_co2/
[x] https://www.ieabioenergy.com/blog/ieaevent/utilisation-and-storage-of-captured-biogenic-co2-deployment-in-selected-eu-countries/
[xi] https://www.ea-energianalyse.dk/en/cases/iea-bioenergy-task-40/