



IEA Bioenergy
Technology Collaboration Programme



Joint Workshop Task 39 and Task 44

Role of Biofuels Production / Biorefineries in Grid Balancing

25-11-2020, 3-5 pm CET

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Agenda

Workshop moderators: Jim McMillan (T39) and Jaap Kiel (T44)

Welcome, review agenda

T39 introduction and presentations

- Task 39 overview (Jim McMillan, NREL, United States) - 5 Minutes
- Task 39 presentations, each 10-15 minutes + 5-10 min discussion
 - Franziska Müller-Langer (DBFZ, Germany) *“SynBioPTx to use synergies of the biobased and powerbased routes”*
 - Gudbrand Rødsrud (Borregaard, Norway) *“Borregaard - The world’s most advanced biorefinery in operation - a peek into our secrets”*

T44 introduction and presentations

- Task 44 overview (Daniela Thrän, DBFZ, Germany) - 5 Minutes
- Task 44 presentations, each 10-15 minutes + 5-10 min discussion
 - Tilman Schildhauer (PSI, Switzerland) *“Dimensions and options of flexible energetic use of biomass”*
 - Esa Kurkela (VTT, Finland) *“FLEXCHX - Flexible combined production of power, heat and transport fuels from renewable energy sources”*

Group discussion to explore future collaboration opportunities



Abstract / Motivation

Due to increasing electricity production from fluctuating renewable sources like wind and solar, the role of bioenergy in the electricity sector should be more flexible to aid grid stabilisation and secure supply. On the other hand, surplus power can be used in biofuels production and biorefinery processes to increase conversion rates and fuels output. Several concepts to produce heat, electricity, fuels and other products in single high-efficiency processing plants are under development. The aim of this workshop is to provide an overview on the flexibility options, get insights into concepts for more flexible biofuel and biopower production, and discuss the challenges and success factors to implement these concepts in energy systems with high shares of renewables; and to explore potential Task 39-Task 44 collaboration opportunities for the next triennium.