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Biomass Gasification for Combined Heat Power (CHP) Applications: the GAMECO Project

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Air-blown fluidised bed biomass gasification is a well adapted technology for Combined Heat Power (CHP) applications with syngas valorisation in a gas engine. However, it is not mature yet. Despite promising prototypes, CHP gasification needs further improvements to become the reference technology in the medium-size CHP market.

This is the purpose of the GAMECO project, which aims at improving an existing technology by optimising its operation, increasing its feedstock flexibility and optimising its upscaling, based on a better understanding of the key points of biomass Bubbling Fluidized Bed (BFB) gasification (i.e. bed agglomeration risks with agricultural biomasses, tar kinetics and biomass particles hydrodynamics).

The identified bottlenecks will be assessed through modelling, lab tests (< 1kg/h), and pilot tests (50 kg/h). Several feedstocks will be tested for this purpose in the frame of GAMECO project.

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