

Technological edge:

Co-production of automotive fuels, electricity and heat

DME, ethanol, synthetic natural gas (SNG) from biomass

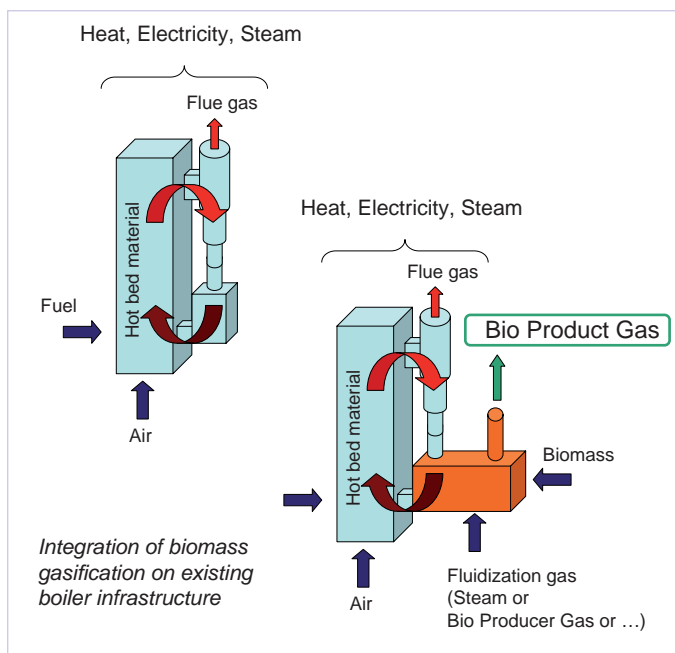


Bridging technologies using fossil fuels are required in order to meet emission targets at a cost which society seems willing to pay, considering security of supply and maintaining regional competitiveness. However, in order to make the bridging system flexible and minimizing lock-in effects, it is important to investigate integration possibilities between the power generation and the transportation sector.

Integration of existing infrastructure

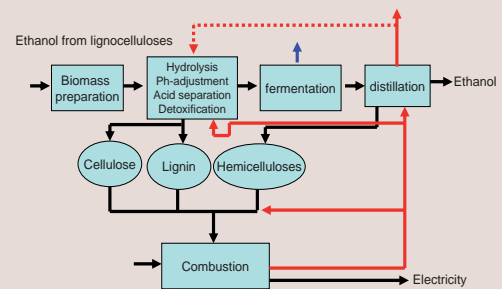
Co-generation of electricity, heat and transport fuels is the most efficient option for production of alternative fuels. Existing infrastructure are ready to be used and, thereby, provides a shortcut for the introduction of alternative transport fuel production at large scale to a low cost. Three examples studied in Pathways are:

- Co-generation from ethanol and power
- Co-generation of SNG and power by integration of biomass gasification on existing boiler infrastructure
- Co-generation of DME on an Oxyfuel Combustion

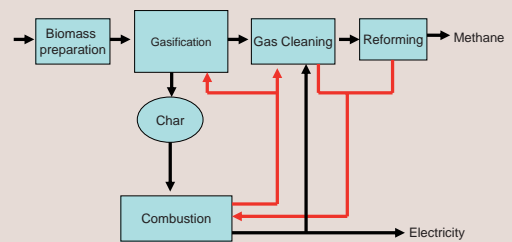


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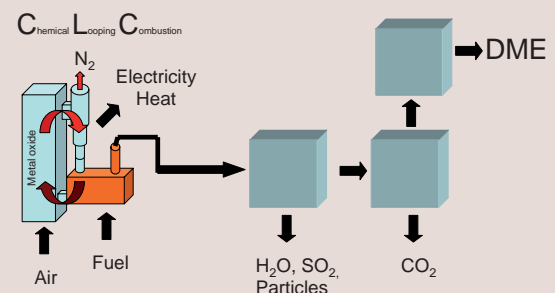
Three examples of Bridging technologies



Co-generation from ethanol and power



Co-generation of SNG and power by integration of biomass gasification on existing boiler infrastructure



Co-generation of DME on an Oxyfuel Combustion Plant