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# Cogeneration of biofuels and heat in the European district heating systems



EU:s 5000 DH systems contribute a substantial share of the total heat deliveries, especially in Scandinavia and the new member states. In absolute terms however, Germany is largest, followed by Poland and Sweden. Most of the heat delivered to the DH systems is presently based on fossil fuels. The use of fossil fuels is also dominating the transport sector in the EU. The gasification of biomass with subsequent conversion of the product gas to liquid biofuels (BtL) results in considerable amounts of surplus heat. Some of this heat could be used in district heating (DH) systems. Thus, the integration of BtL plants with the EU:s DH systems could contribute to EU goals of increasing the use of biomass for both heat and transport.

The aim of this part of the project is to assess the potential for integration of BtL plants with the DH systems in the EU.

## BtL plant configuration

The heat sink represented by the aggregated national DH systems is large enough to correspond to the production of substantial amounts of biofuels for transport by co-generation. However, the potential contribution of the assessed option for meeting the EU target for biofuels for transport for 2020 is highly dependent on BtL plant configuration and competitiveness vs. other heat sources in the DH systems, e.g., combined heat and power (CHP) – issues that will be further analysed.

