

Evaluation includes raw material costs, fixed and variable production costs, transport and infrastructural costs, and the cost of energy utilisation in the distribution chain.

In general, future costs are difficult to predict due to fluctuations in raw material prices and the rapid pace of technological development. In many cases, the cost of producing a fuel is only a small element of the price to the end user, due to taxes and other charges.

In these examples, the cost of the particular fuel is compared with that of conventional diesel oil, assuming a crude oil price of USD70 per barrel (excluding taxes). Comparison is made on a per-litre equivalent basis. This means that over a litre of fuel is required in some cases to obtain the same energy content as a litre of diesel.

The results for the same fuel may vary depending on the feedstock used.



DME and methanol receive the highest rating. These are already cost-competitive when produced from black liquor; however, production by gasification of forest products or farmed wood is more expensive.

Biodiesel is about 60 percent more expensive than conventional diesel.

In the case of biogas and hydrogen+biogas, biogas based on waste materials is the most cost effective, due mainly to low feedstock cost.

In the case of biogas+biodesiel, biogas in liquid form is approximately 25 percent more expensive than compressed biogas.

Biogas produced by gasification of black liquor is not included in the summary.

Synthetic diesel is the most expensive fuel due to high capital costs and the relatively low energy efficiency of production.

Ethanol is generally expensive to produce. Production from forest products is the most expensive process.

Source: EUCAR/CONCAWE/JRC and AB VOLVO