














Infrastructure is an important criterion in terms of how quickly and easily a new fuel can be introduced and integrated with existing systems. As such, it is often regarded as the greatest challenge to the introduction of an alternative fuel.

However, it should be noted that since the infrastructure for conventional fuels is also in need of major investment, infrastructure is a secondary issue in the longer term.

This evaluation also takes into account the safety and environmental aspects of handling the fuel within the infrastructure.

-  **No changes (liquid fuel).**
-  **Minor changes (liquid fuel).**
-  **Major changes (liquid fuel).**
-  **Gas handled in liquid form at low pressure.**
-  **Gas handled under high pressure or in liquid form at low temperature.**

Biodiesel	
Synthetic diesel	
DME - Dimethylether	
Methanol/ Ethanol	
Methanol/ Ethanol	
Biogas	
Biogas+ Biodiesel	
Hydrogen+ Biogas	

Synthetic diesel receives the highest rating. The fuel can easily be mixed with conventional diesel oil without compromising established standards and specifications. Specific measures are required in the case of biodiesel due to the lower stability of the fuel in storage.

When used in pure form, methanol and ethanol require corrosion-resistant materials, additional fire safety measures and a separate infrastructure. Due to the significant health hazards involved, methanol should be handled in completely closed systems.

DME is a gas at room temperature and atmospheric pressure. In a vehicle, the fuel is used as a liquid at a pressure of 5 bar. The distribution infrastructure for DME is similar to that of liquefied petroleum gas (LPG). DME is heavier than air and can accumulate in the event of leakage, creating a fire hazard.

Biogas is handled at high pressure (200 bar) and requires the same infrastructure as that currently used to distribute natural gas.

The infrastructure required for hydrogen is the most expensive and complex of all since hydrogen must be handled at an even higher pressure than biogas.