



Hydrogen 101

Transporting Hydrogen

Hydrogen Council

How is hydrogen commonly transported?

Hydrogen is typically transported and delivered as a liquid when high-volume transport is needed. To liquefy hydrogen, it must be cooled to cryogenic temperatures through a liquefaction process, that cools it to below -253°C . Once liquefied, it can be stored in large insulated tanks.

For moving hydrogen over long distances, it is transported in super-insulated, cryogenic tanker trucks. Over long distances, trucking liquid hydrogen is more economical than trucking gaseous hydrogen because a liquid tanker can hold a much larger mass of hydrogen than a gaseous tube trailer. In regions with high demand, hydrogen is also transported to the point of use via pipelines.



Why is hydrogen delivery important?

A viable hydrogen ecosystem requires that hydrogen be able to be delivered from where it's produced to where it's used effectively. Using the best method of hydrogen delivery can help reduce costs and inefficiencies in the value chain. Developing technology for hydrogen infrastructure will continue to develop wide-scale growth of hydrogen demand and adoption. However, research is needed to improve today's liquefaction technology and when combined with improved economies of scale, will help reduce the energy required and cost of liquefaction.