

# Hydrogen Liquefiers Where Green is the new Blue

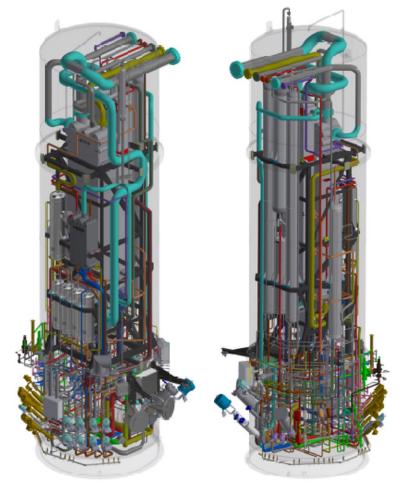


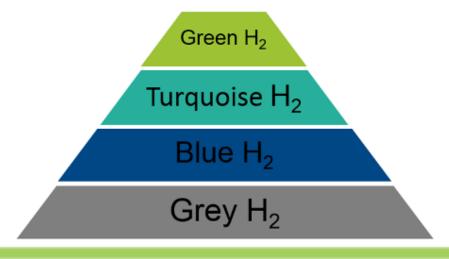
## Make operations safe, easy and reliable

Through our deep cryogenic expertise and proven track record of delivering solutions for a large range of liquefied gases, Chart is uniquely positioned to address the entire liquid hydrogen value chain.

### Standard Liquefaction Plant Solutions

- Standardized plant designs with liquefaction capacities of 5, 9, 12, 15 and 30 tonnes per day (tpd)
- Larger and custom sizes available upon request
- Options for trailer loading and trailer clean-out systems, and storage volumes
- Key equipment, including heat exchangers, vacuum-jacketed piping, cold box and cryogenic storage tanks, is designed and manufactured in-house
- Chart's hydrogen liquefaction processes use state of the art pre-cooling, refrigeration cycles and rotating equipment for optimized CAPEX based on power costs
- Modular component construction and shop fabrication, minimizing field construction
- Ability to manufacture multiple cold boxes in Chart's dedicated plants
- Minimized risk through proven technology and off the shelf components
- If required, Chart can incorporate front-end hydrogen purification processes from trusted partners to cater for a large range of inlet specifications
- Chart expertise includes process technology and plant designs





Liquefying and delivering all colors of hydrogen as a secure, clean, safe and affordable alternative to fossil fuels.

# Invest in Clean Energy



## Incorporating Chart's In-house Cryogenic Expertise

**Heat Exchange:** Chart superior plate fin heat exchangers are your guarantee of the most energy efficient and compact heat exchange solution.

**Storage:** Chart is the undisputed leader in cryogenic liquid hydrogen storage with hundreds of tanks in service around the world.

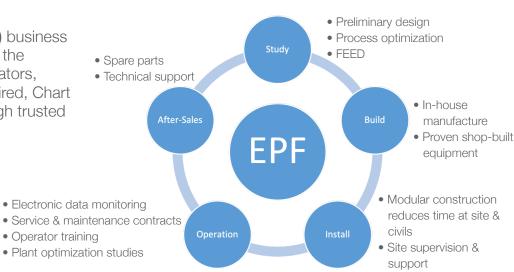




**Chart Vacuum Technology**® is at the core of why Chart is recognized around the world as the premier supplier of cryogenic equipment. Our total scope incorporates inhouse engineered and built vacuum jacketed pipework vaporizers and other equipment essential for the storage and transfer of liquid gases.

## Full Support Throughout the Complete Project Lifecycle

Focused, flexible **Engineering**, **Procurement**, **Fabrication (EPF)** business model perfectly positions Chart as the partner of choice for owners, operators, end-users and contractors. If required, Chart can deliver a full EPC scope through trusted partners.



## Positioned to Address the Entire Hydrogen Value Chain























Engineered for Efficiency - Built to Last

### Member of:





















# Strategic Partner: McPhy



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