

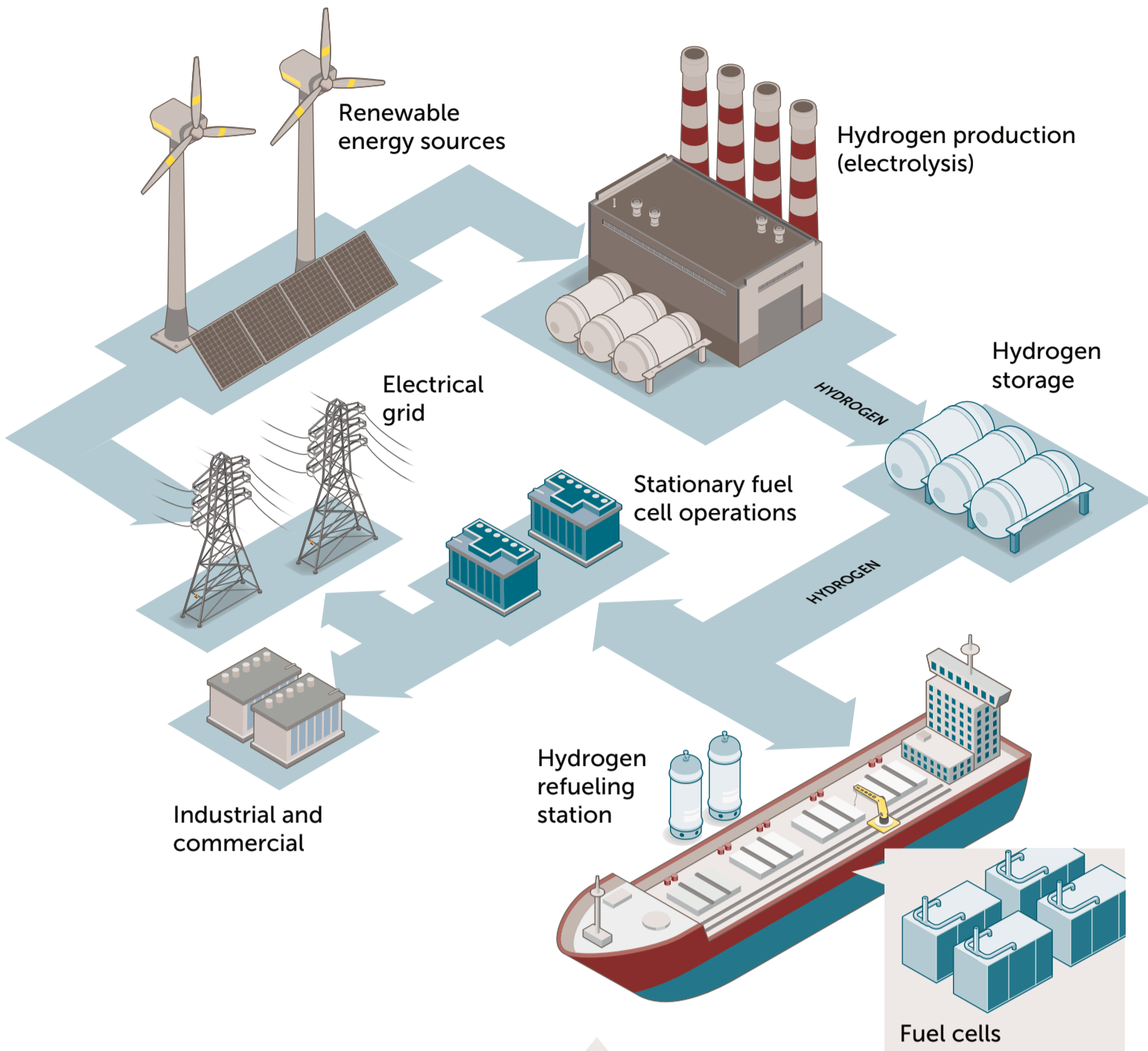
Enabling Hydrogen Today

From Hydrogen Production to Fuel Cell Operations

Carbon-free hydrogen based fuel cells are primed to replace diesel engines for both propulsion and electricity generation use cases. However, to truly be a climate-neutral power source, hydrogen must be produced from renewables. This is where Entegris' expertise in high scale gas purification can add value to the green energy supply chain.

UNDERSTANDING THE GREEN HYDROGEN VALUE CHAIN

Green hydrogen can be produced from renewable energy sources. Fuel cells transform hydrogen into electricity and can be deployed across industries and commercial applications to provide electricity. Energy can also be transferred back to the grid.

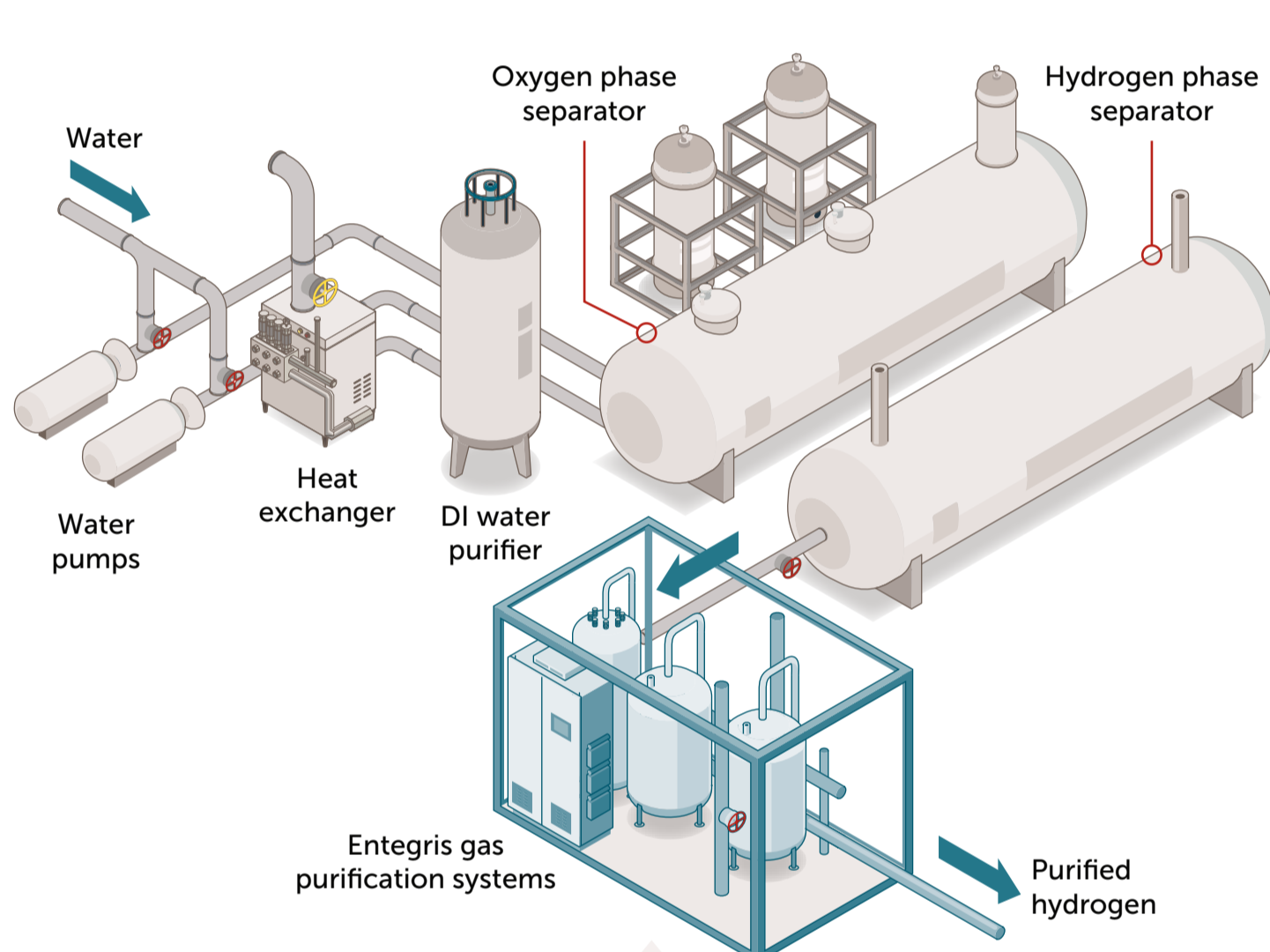


FUEL CELL USAGE IN TRANSPORTATION

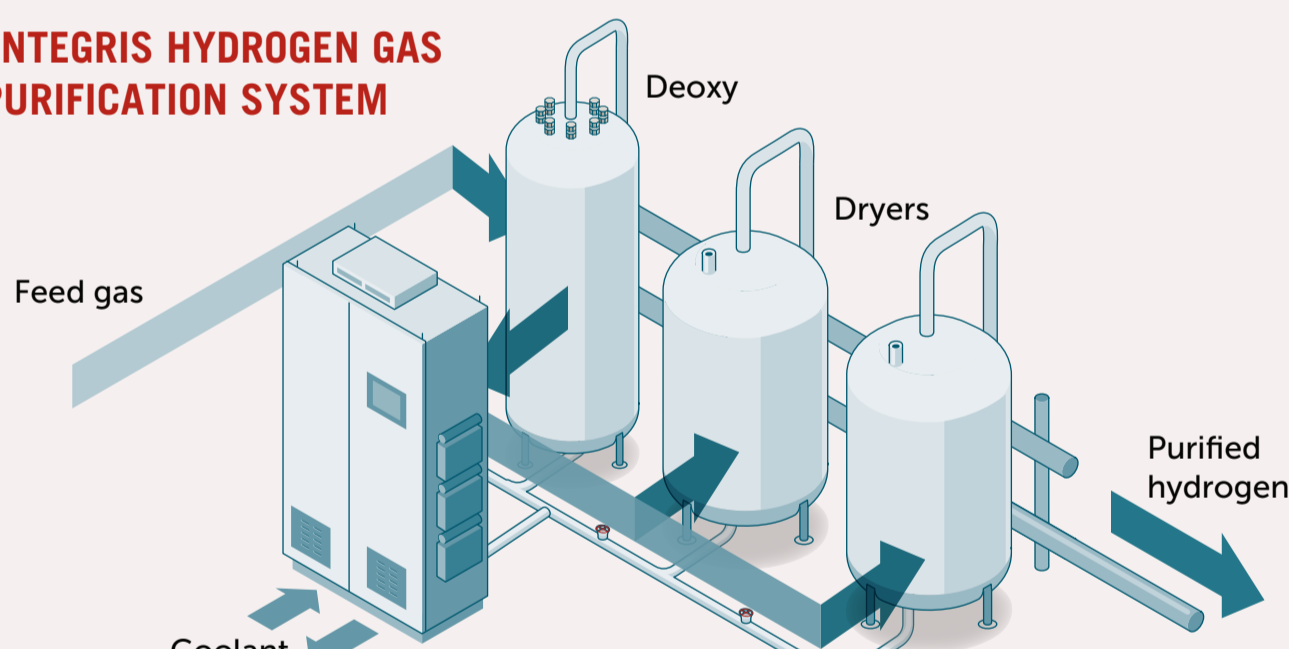


HYDROGEN PRODUCTION VIA ELECTROLYSIS

Water is deionized and purified prior to being run through phase separators to extract high purity hydrogen and oxygen.



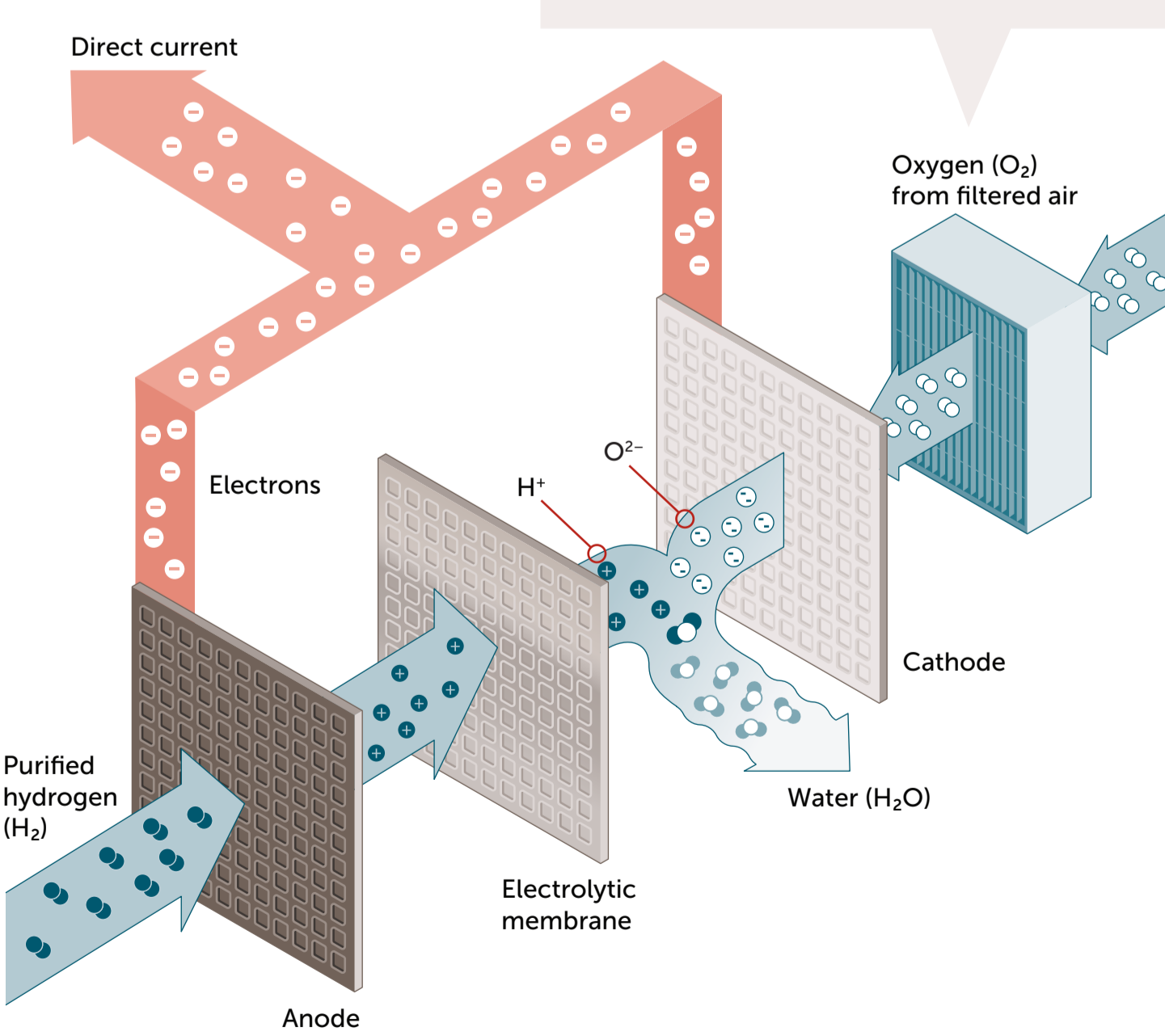
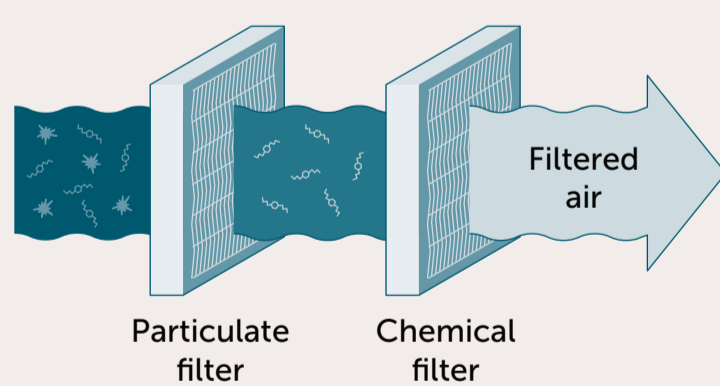
ENTEGRIS HYDROGEN GAS PURIFICATION SYSTEM



HYDROGEN FUEL CELL OPERATIONS

Fuel cells use a controlled reaction between hydrogen fuel and an oxidant – typically filtered air – to produce electricity. With high purity inputs, water or steam are the only waste products.

ENTEGRIS AIR FILTRATION



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