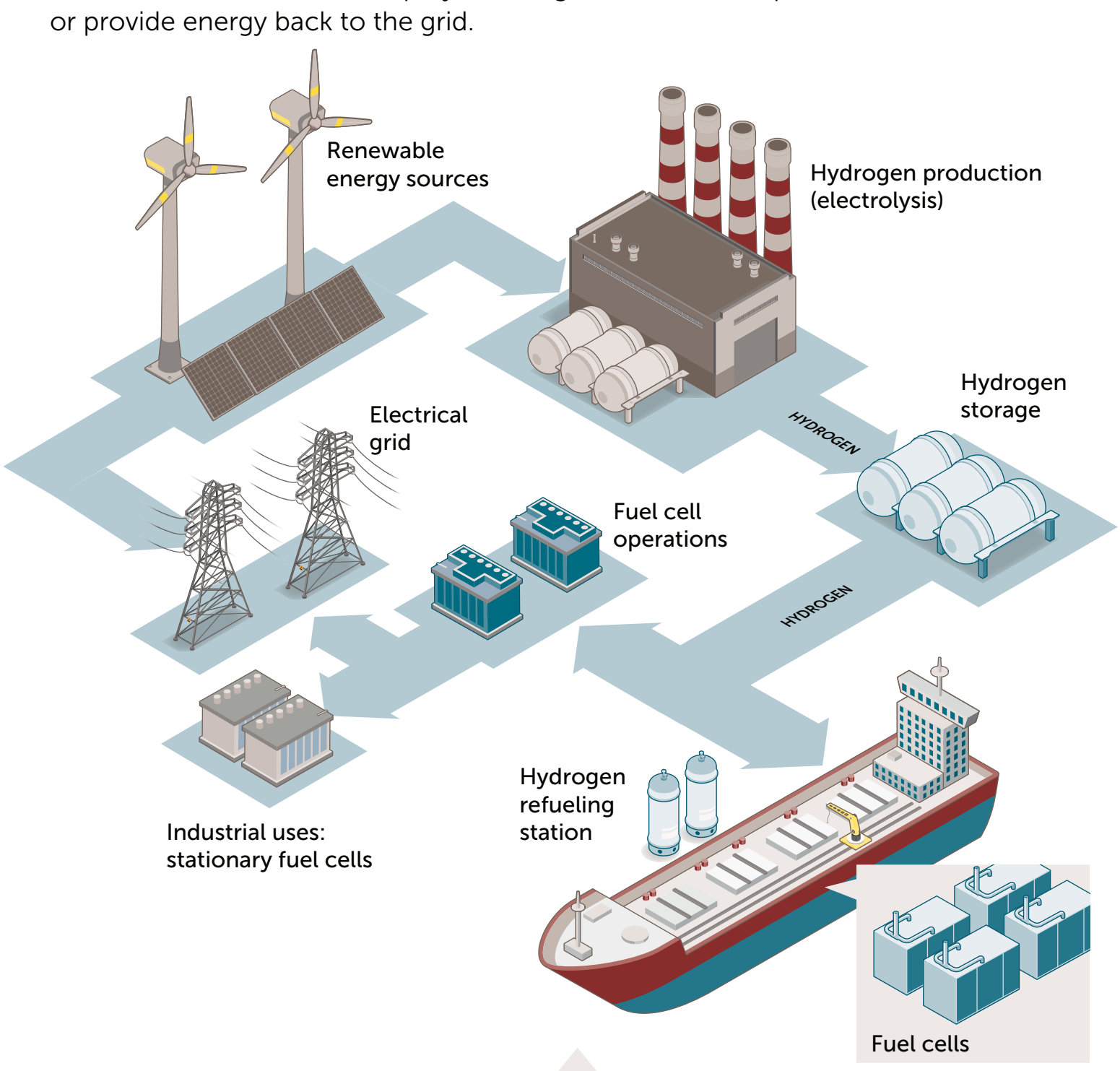
Enabling the Future of Power

From Hydrogen Production to Fuel Cell Offerings

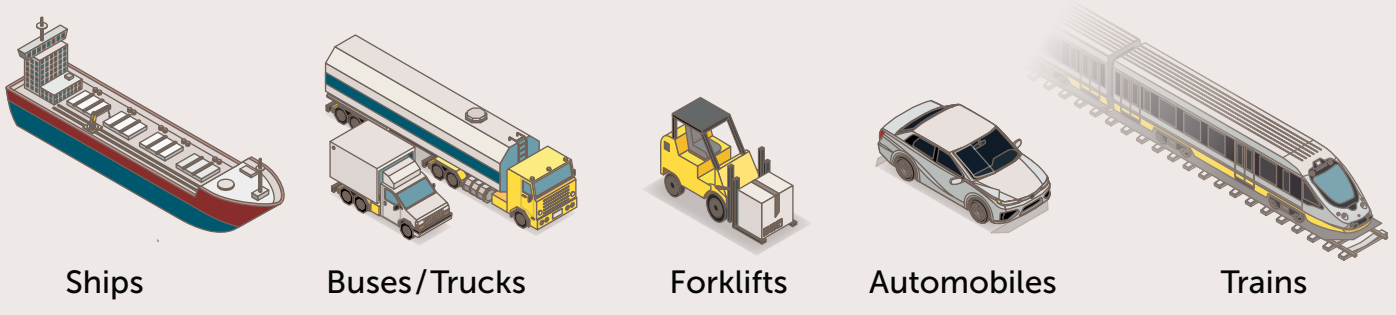
Fuel cells have vast potential to power tomorrow's technology. Carbon-free hydrogen based fuel cells are primed to replace diesel engines for both propulsion and electricity generation use cases. However, to truly be a climate-neutral power source, hydrogen must be produced from renewables. This is where 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 extracted from renewable energy sources and stored in fuel cells. These can be deployed in large scale vehicles, power data centers, or provide energy back to the grid.

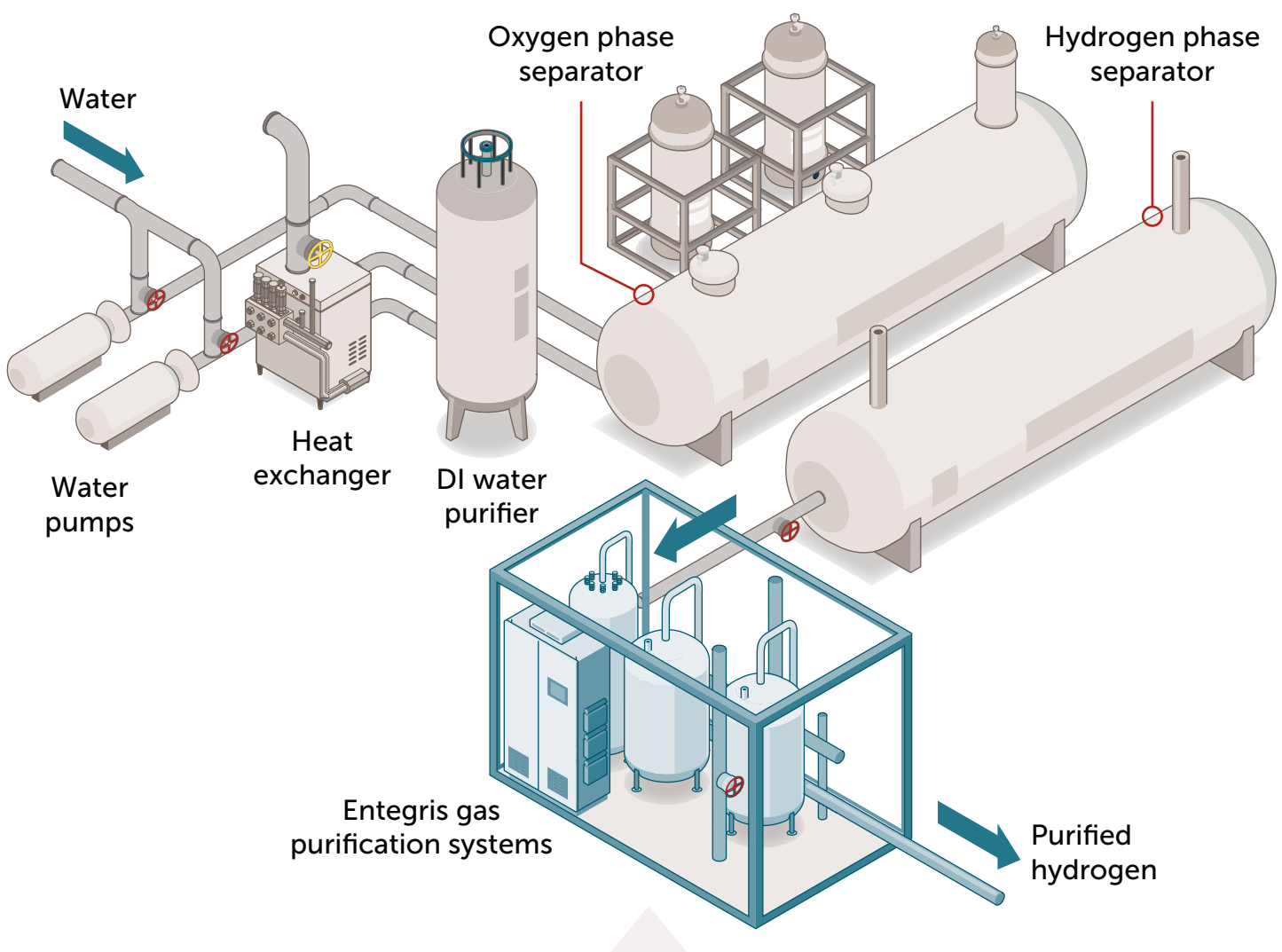


FUEL CELL USAGE IN TRANSPORTATION

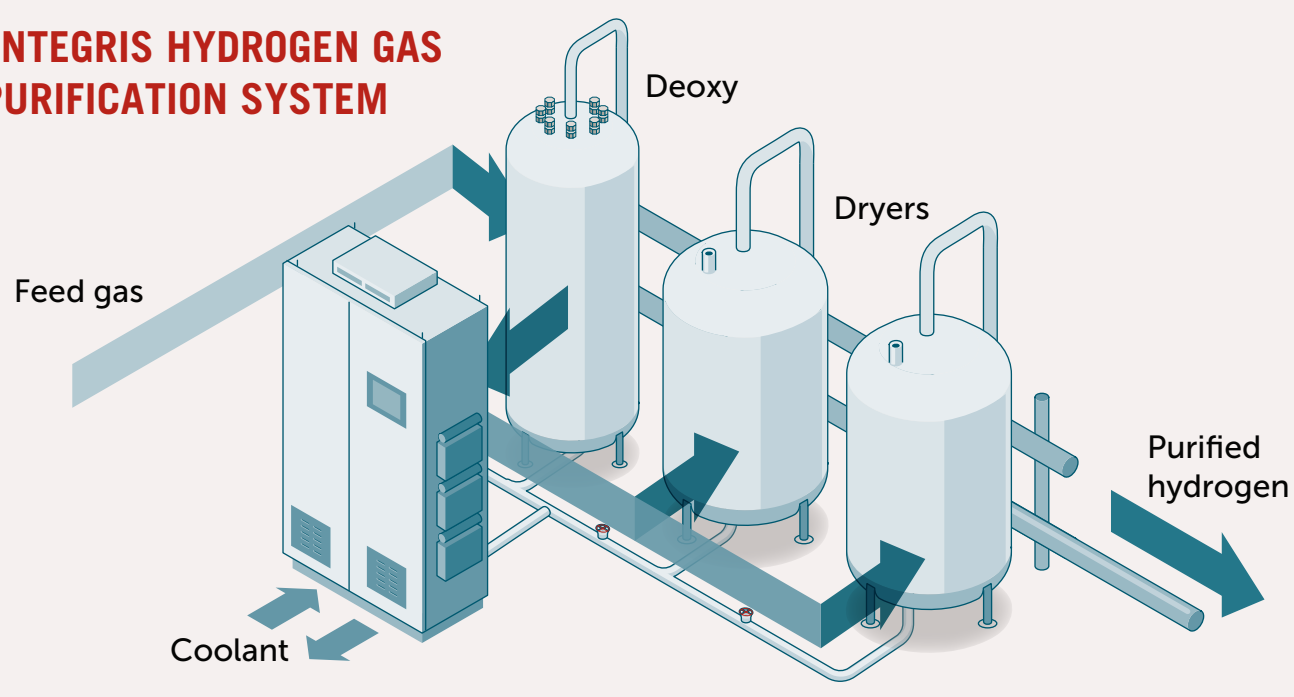


HYDROGEN PRODUCTION VIA ELECTROLYSIS

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



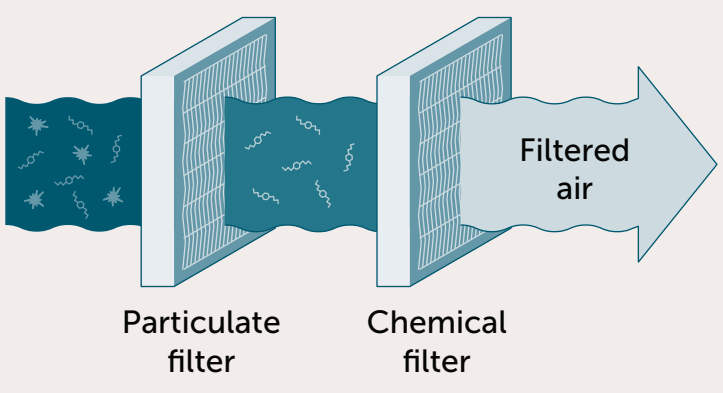
ENTEGRIS HYDROGEN GAS PURIFICATION SYSTEM

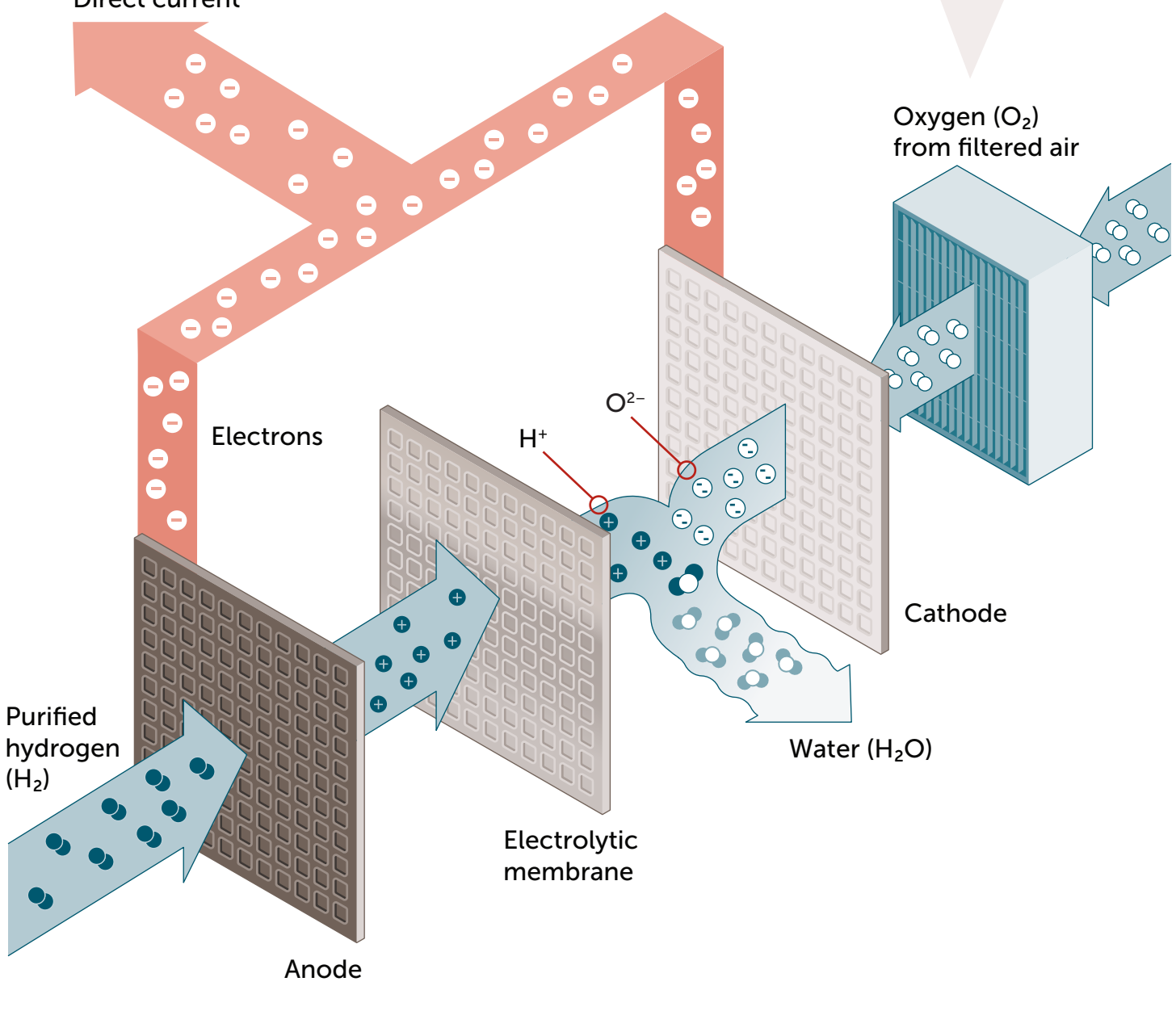


HYDROGEN FUEL CELL OPERATIONS

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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