

HYDROGEN ENERGY IN WYOMING

WHAT IS HYDROGEN?



The development of hydrogen would diversify Wyoming's energy economy.



ELEMENT

Hydrogen is the lightest and most abundant element in the universe.



ENERGY CARRIER

Because hydrogen does not exist freely in the quantity and concentration of other fuels and generally must be produced using other forms of energy, it is known as an energy carrier.



FUEL

Once produced, hydrogen can be burned with oxygen to create a zero carbon fuel. It can be used in fuel cells or internal combustion engines and produces clean power or heat at the point of use.

WHY USE HYDROGEN?



Early progression hydrogen would position Wyoming as a leader and first to market.



INFINITE SOURCE

Hydrogen can be produced from existing Wyoming sources of energy including coal, gas, wind, solar, and nuclear.



MINIMAL CARBON FOOTPRINT

Hydrogen extraction is possible from multiple Wyoming energy sources with a minimal carbon footprint and a by-product of only water vapor.



TRANSPORTATION

Hydrogen can be transported and exported in large volumes as hydrogen or ammonia through existing Wyoming rail and pipeline infrastructure.

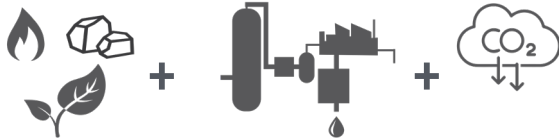


STORAGE

Hydrogen can be stored in large quantities for long periods of time.

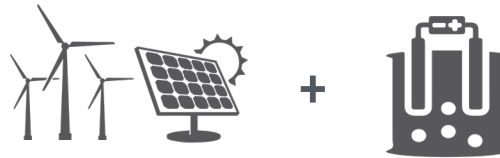
HOW DOES HYDROGEN WORK?

BLUE HYDROGEN



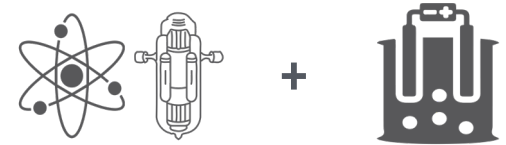
Produced from fuels such as coal, natural gas, or biomass using steam methane reforming or gasification with carbon, capture & storage (CCS).

GREEN HYDROGEN



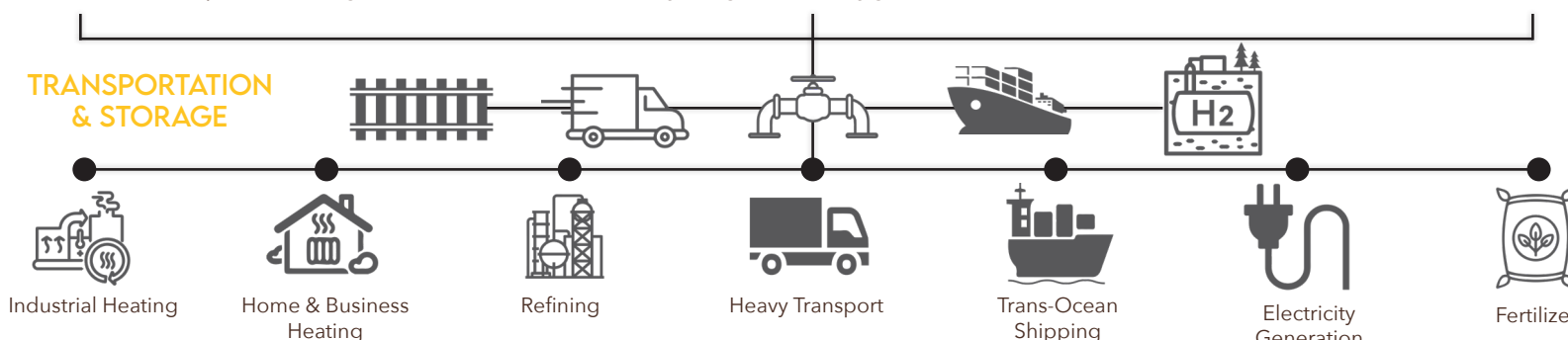
Produced from renewable energy sources such as wind or solar using electrolysis to separate water into hydrogen and oxygen.

PINK HYDROGEN



Produced from clean nuclear sources using electrolysis to separate water into hydrogen and oxygen.

TRANSPORTATION & STORAGE



APPLICATIONS & USES