

Hydrogen Production by Coal Gasification

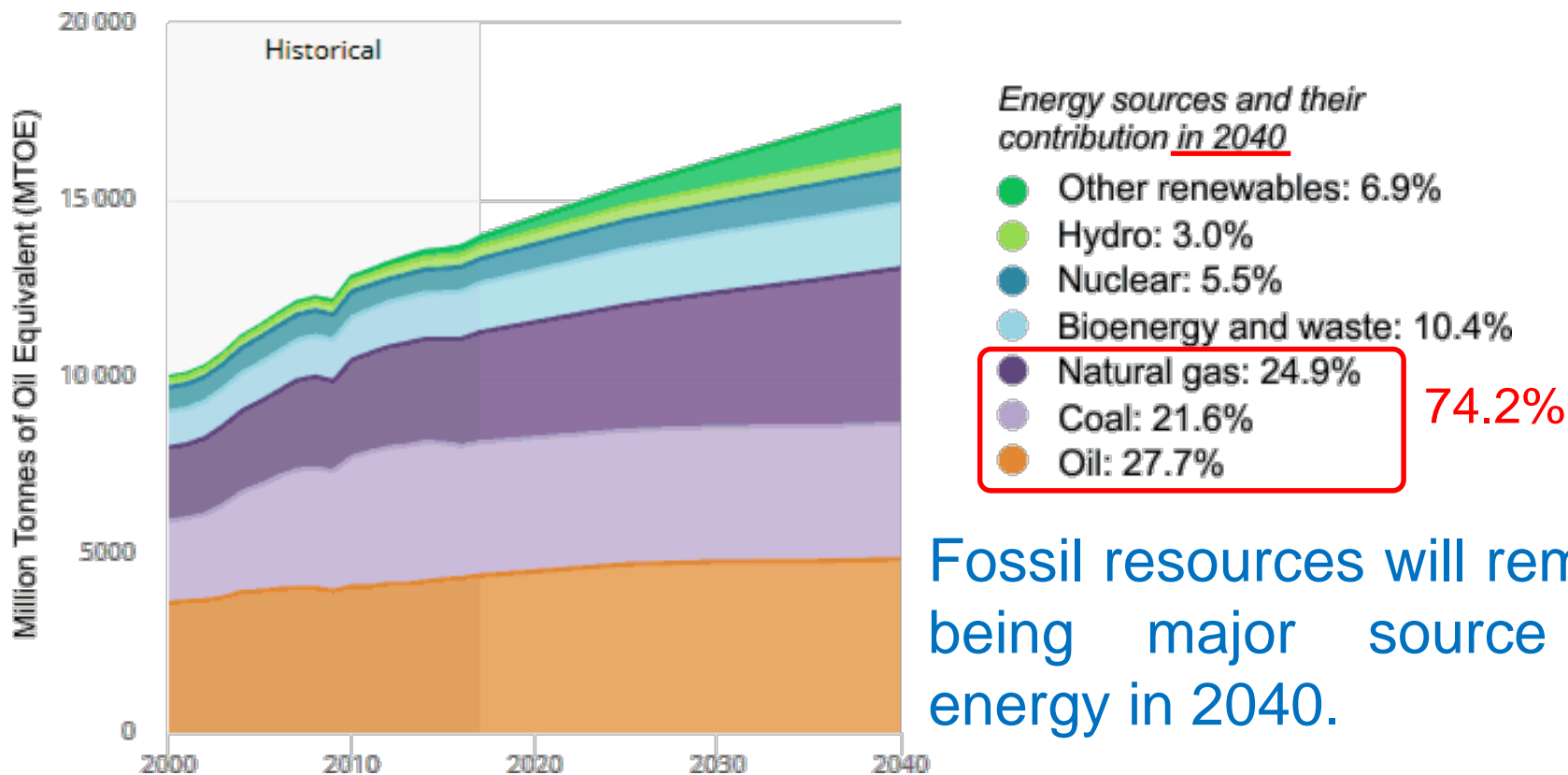
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Global Energy Context



Need for clearer view of using fossil resources with **low to near-zero emitting manner**



Fossil resources will remain being major source of energy in 2040.

Global Primary Energy Demand by Source

Global Final Energy Consumption

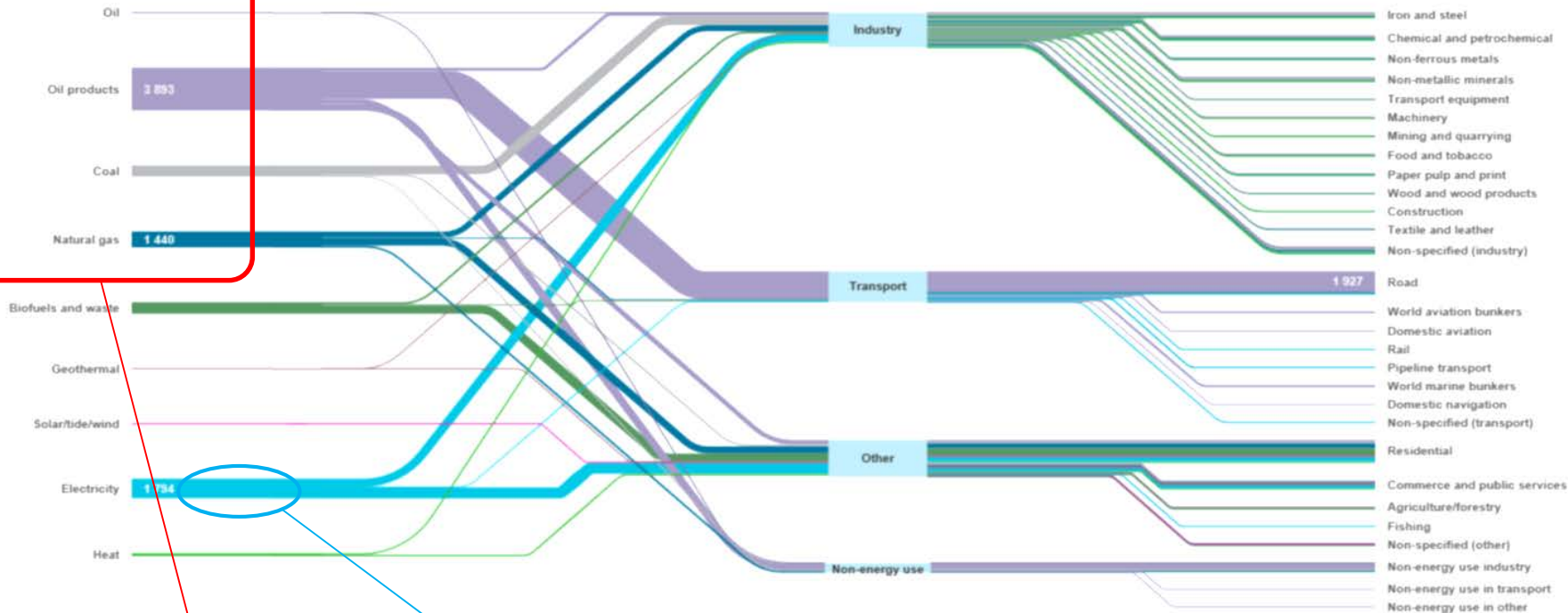


Fossil resources dominate in final energy consumption globally

World
FINAL CONSUMPTION (2016)

Total final consumption
(9 555 Mtoe)

Millions of tonnes of oil equivalent



Electricity 19%

Fossil resources 67%

Source: IEA Statistics on the WEB

*1) Final energy consumption

Global Energy Flow*1) in 2016

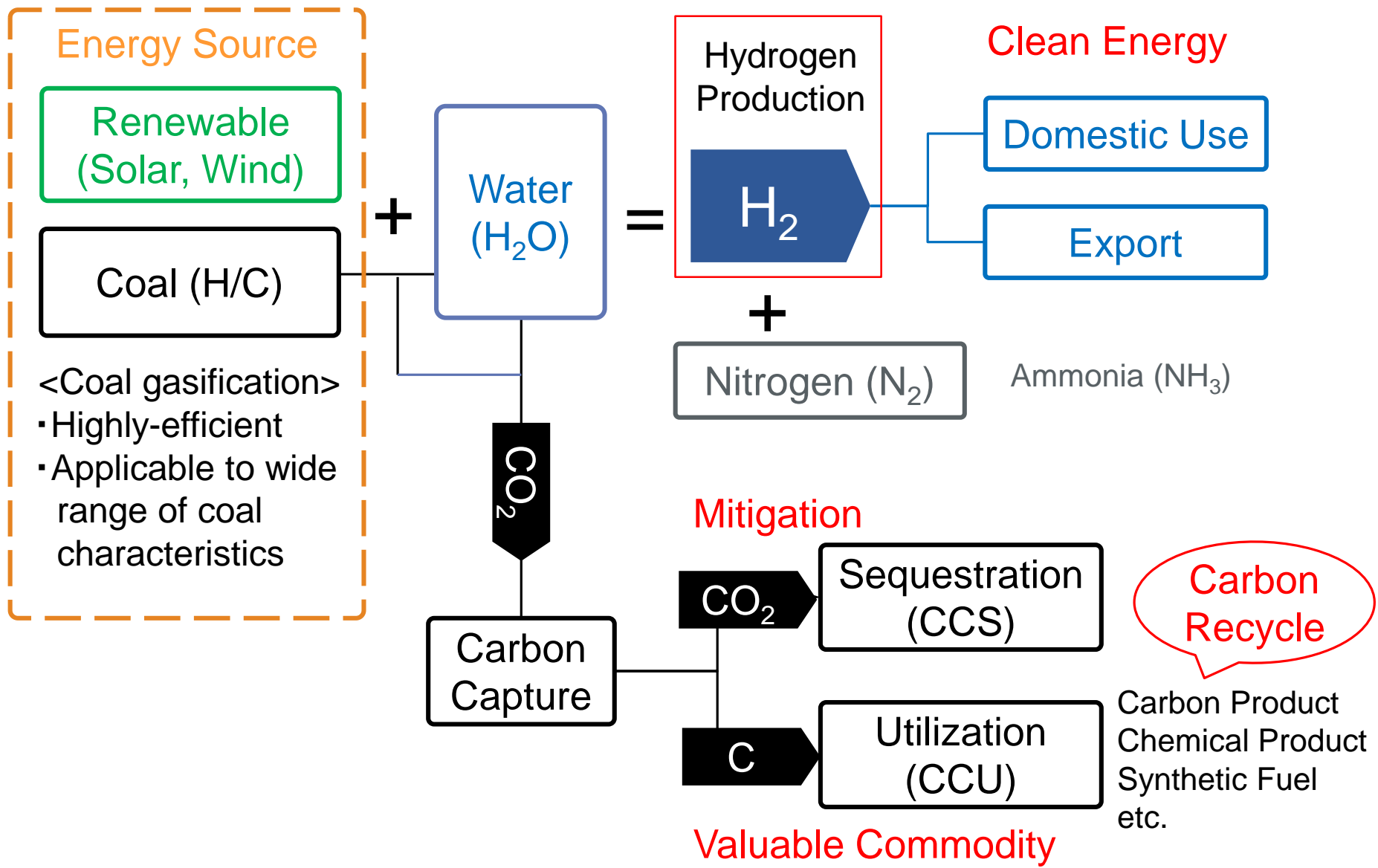
Hydrogen will become a solution

“The time is right to tap into hydrogen’s potential to play a key role in a clean, secure and affordable energy future.”

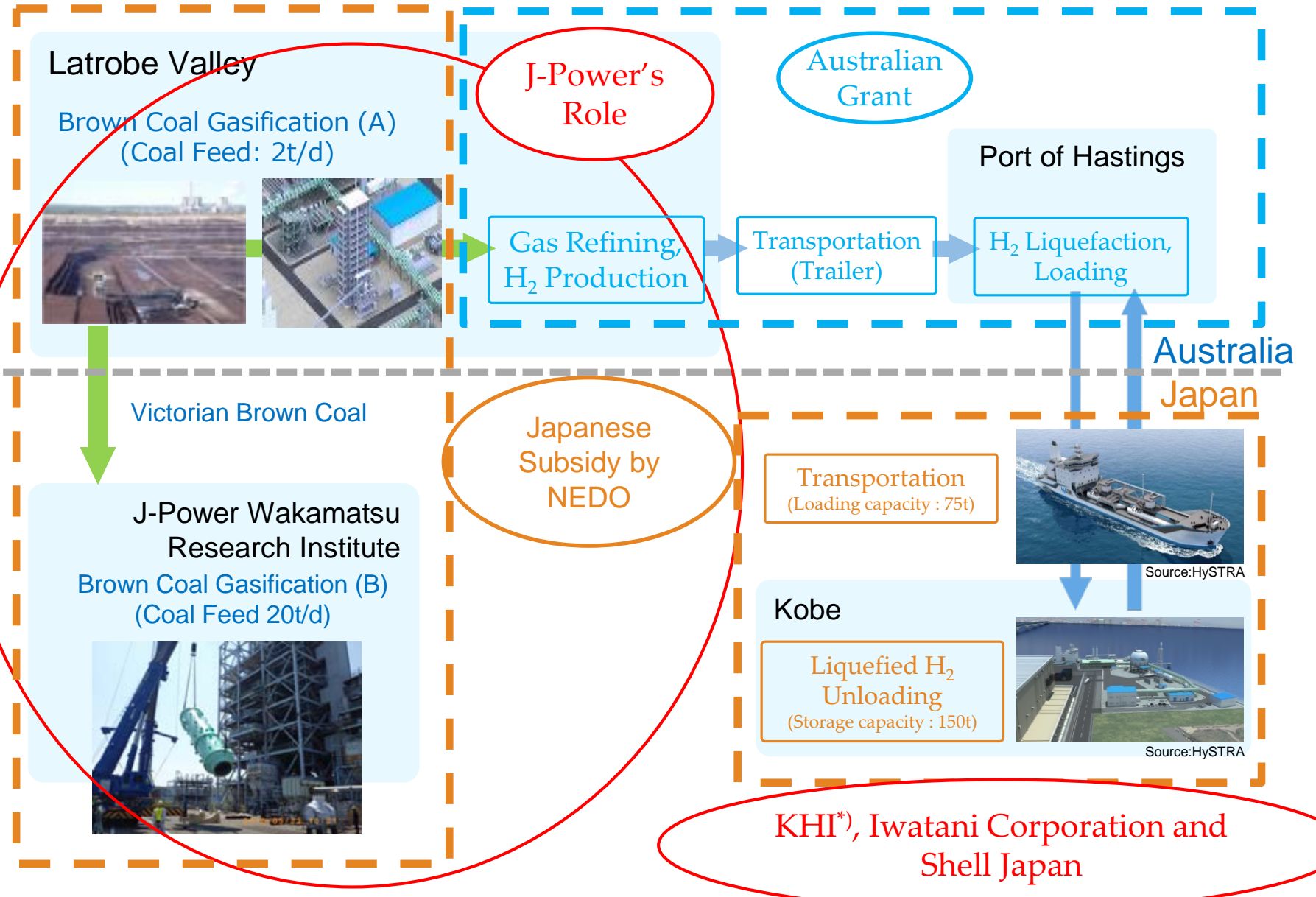
Source: IEA (2019) The Future of Hydrogen



Hydrogen Production



Hydrogen Energy Supply Chain Project



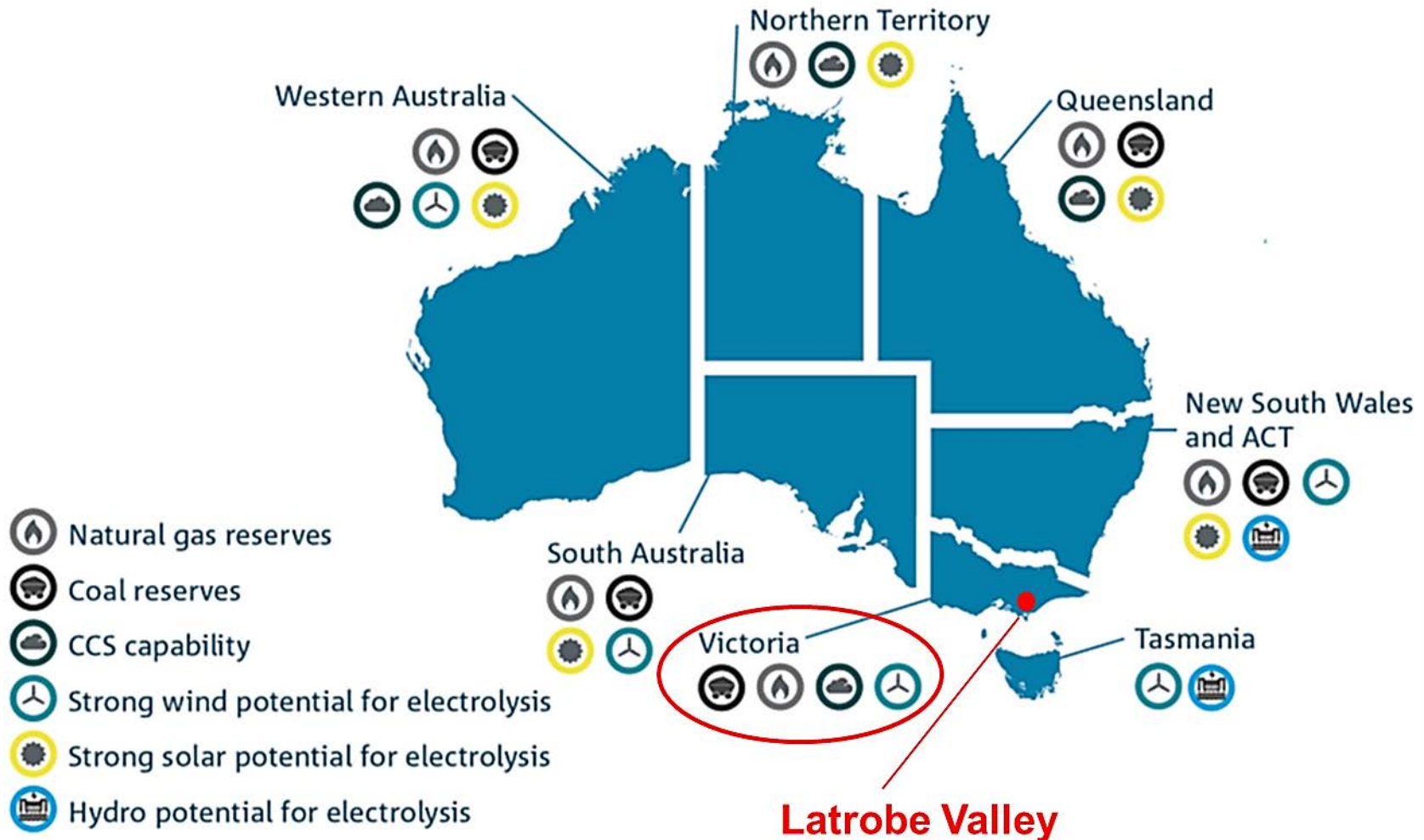
*) KHI: Kawasaki Heavy Industry

HESC Pilot Plant



Source:HySTRA

Energy Resource Options for Hydrogen (example)



Source: Adapted from Energy Networks Australia 'Gas Vision 2050' (Deloitte Access Economics)

Source) Hydrogen for Australia's Future