

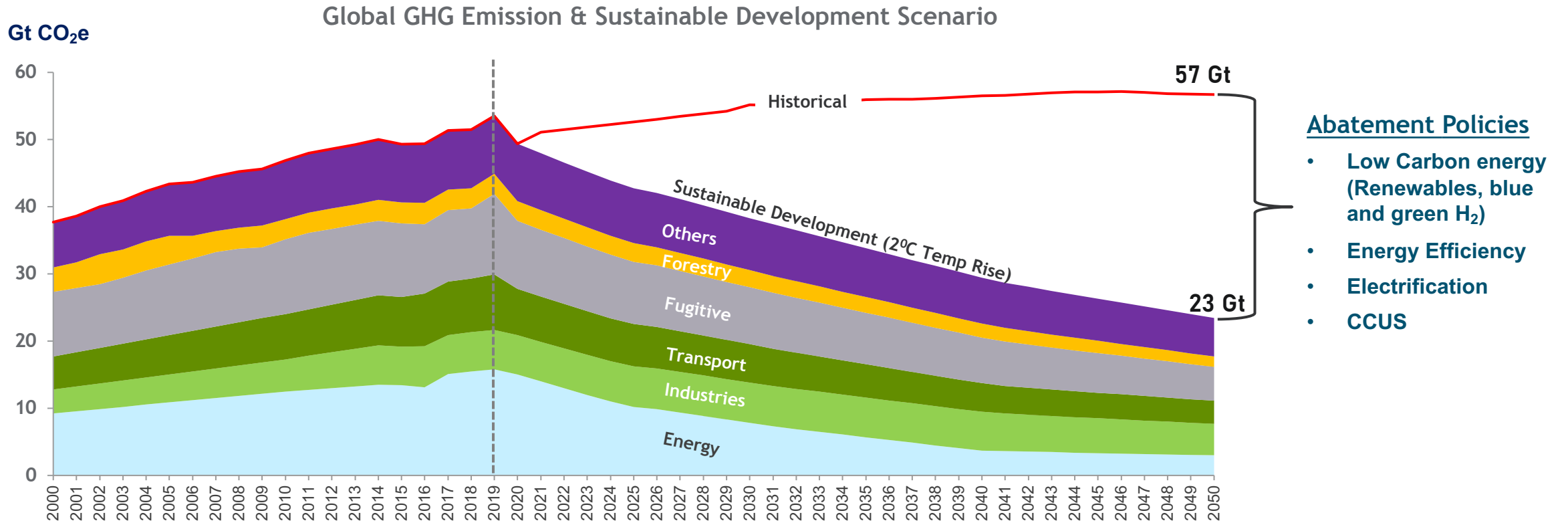
Energy Transition Pathway

GPA-GCC Chapter Virtual Roundtable 2021



By Dinesh Singh

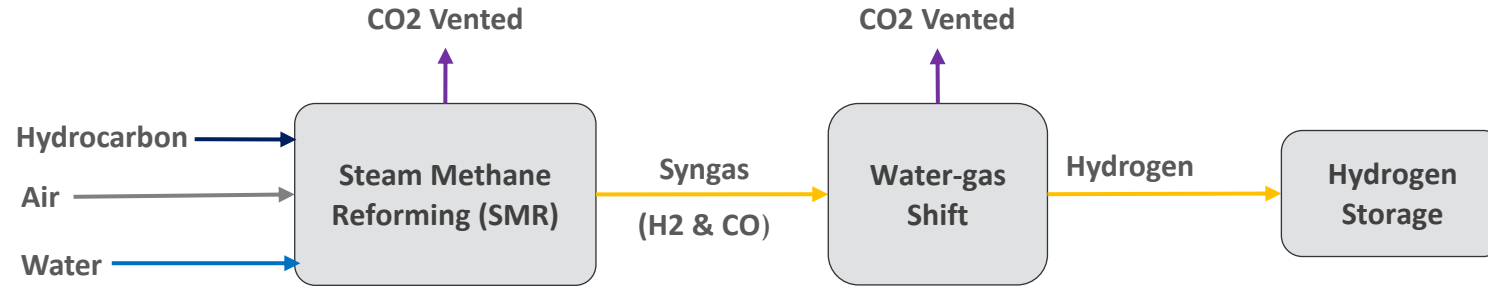
Why Energy Transition?



- Energy Transition is key to switch the world GHG emission projection from historical to sustainable development path

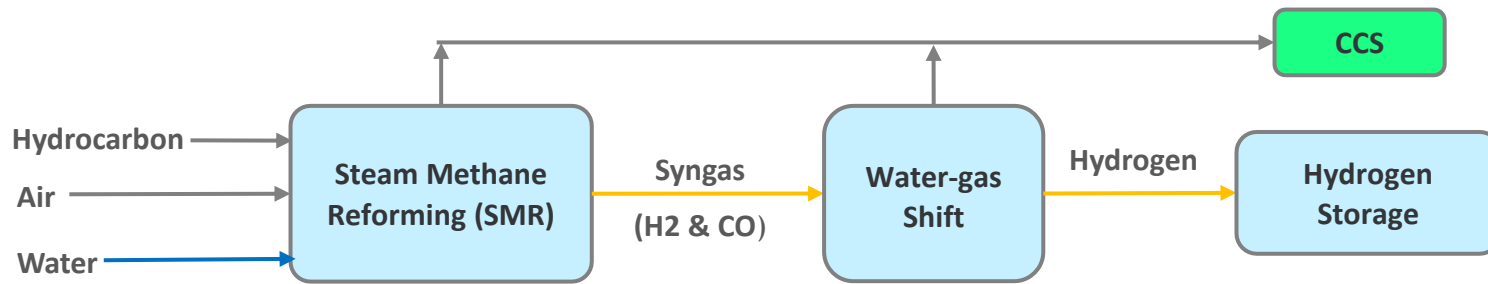
Shades of Hydrogen

Grey Hydrogen



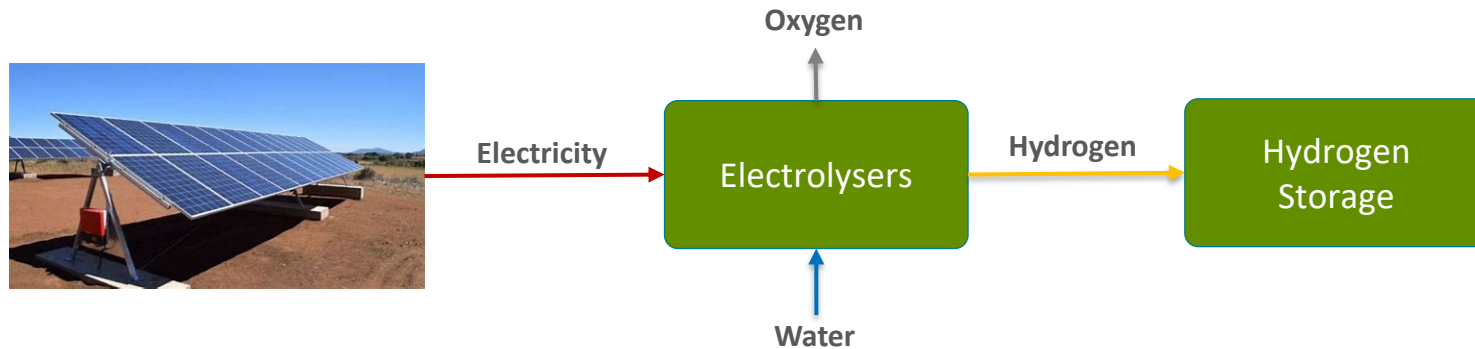
- No Management of CO₂ emission

Blue Hydrogen



- CCS to abate CO₂ emission
- Life long monitoring of underground stored CO₂

Green Hydrogen

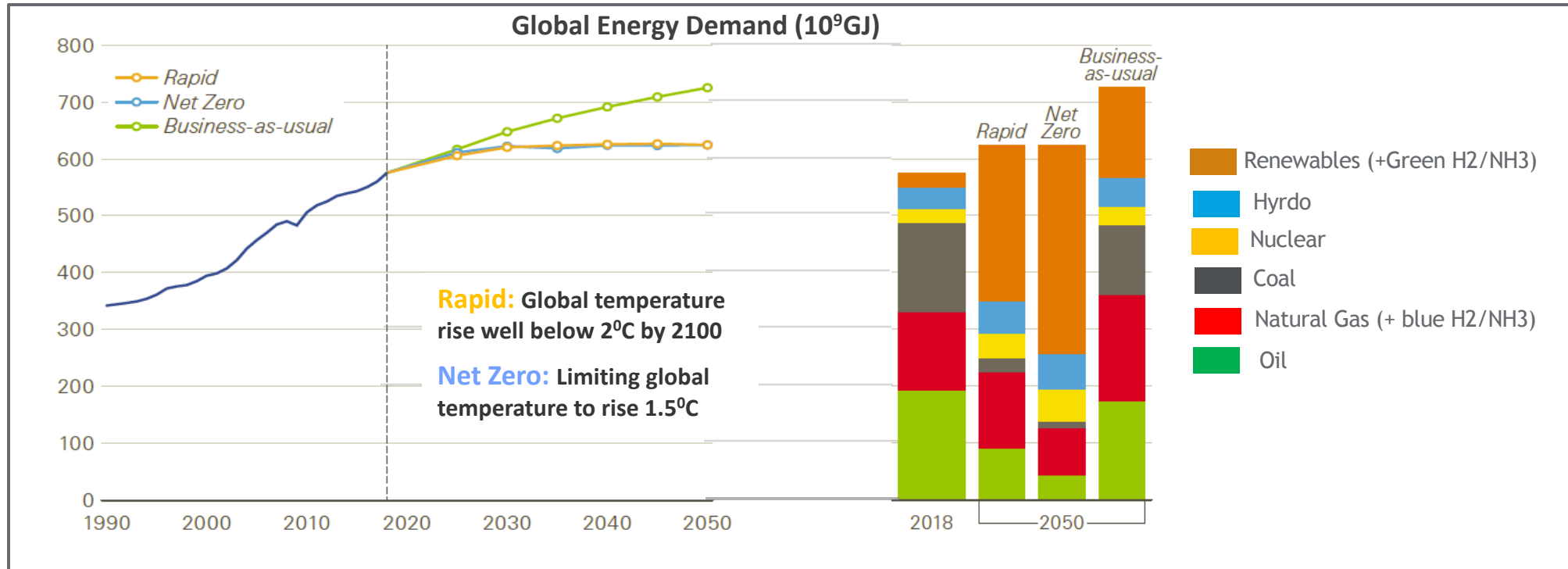


- CO₂ free operation
- Risk free CO₂ abatement

Energy Transition Pathway

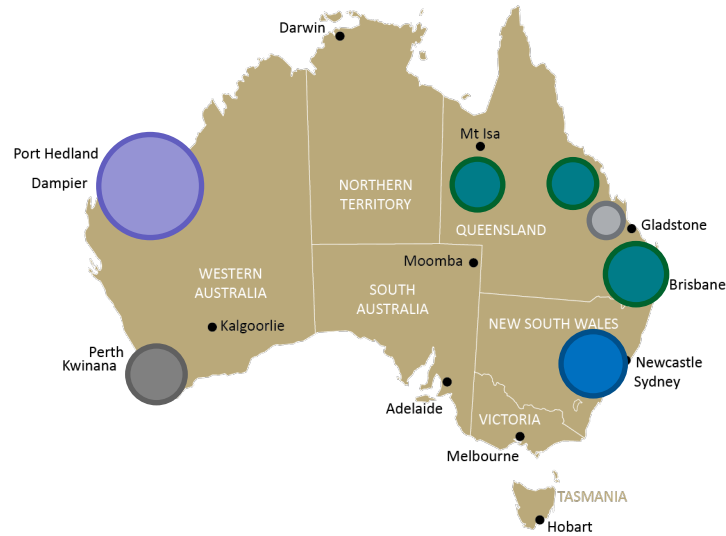


Energy Transition Outlook



- Clean H2 demand is projected to grow from 110 bscfd in 2022 to 530MMtpa by 2050 and would avoid approximately 6Gt/y CO2 emissions.

Energy Transition: Viable Opportunities in Australia



- WA and a few pockets in Australia have a good mix of solar and winds to support over 45% renewables' Capacity Factor to produce green hydrogen at competitive price.
- Low cost green hydrogen coupled with utilization of the existing ammonia facilities (5 east coast, 2 west coast) would potentially realize a viable carbon neutral Ammonium Nitrate manufacturing .

Thank You