

It is critical to position natural gas as a transition fuel for reduction in Green House Gas emission & enable the entry of hydrogen fuel in the country
Analyse.

Government of India set a vision to make India gas based economy by 2030, by increase share of gas in energy mix from current 6% to 15%, thus reducing Green house gases.

Natural gas is cleanest fossil fuel as it produces 40% smaller emission foot print than coal, hydrogen fuel can be a future energy source however it will be economically viable only by 2040

As natural gas can be used to convert water into green hydrogen, it can act as transition fuel & enable hydrogen entry in future, Done in (3 steps)

Deploying technologies - use natural gas & hydrogen ready

Adopting natural gas infrastructure to hydrogen

Utilizing natural gas to produce hydrogen

Opportunities

1. steel manufacturing which currently uses 14% of energy with huge coal can be switch to natural gas with hydrogen energy compatible
2. Hydrogen produce high grade of heat Boilers, furnaces, heaters in Industries can be converted to Natural gas & 20% hydrogen fuel blend
3. compressed natural gas blended with Hydrogen (H-CNG) piloted in transport sectors
4. current Natural gas transmission pipeline (17,000 km) need to be upgraded as hydrogen non corrosive & planning future hydrogen ready pipeline, thus reducing cost
5. Cost of hydrogen fuel (3-7 times higher than coal) can be reduced by using natural gas to produce hydrogen thus creating artificial Demand

As India moves towards carbon neutral, less GHG emitting natural gas used as transition fuel for gradual adopting hydrogen fuel. In this regard GoI National Hydrogen Mission a clear & roadmap.