

Steam Methane Reforming Decarbonisation

Notes:

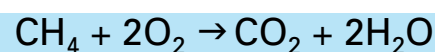
- CO₂ is released from the reforming process chemistry
- CO₂ emissions are also associated with heat energy required to drive the reforming reactions
- The heating process can potentially be decarbonised with renewable power and electrical heating or microwaves
- CCS to capture CO₂ from the process and / or the associated heat energy production is possible



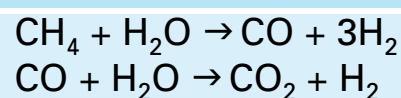
Steam Methane Reformer

Steam Methane Reformer SMR

Combustion reaction forming post-combustion CO₂



Chemical reaction producing CO₂ in process



Decarbonisation approach for CO₂ generated by the process

Feed the reformer with biomethane instead of natural gas or CO₂ capture

Industries with SMR applications

Ammonia, Methanol, Gas-to-Liquids, Refining