

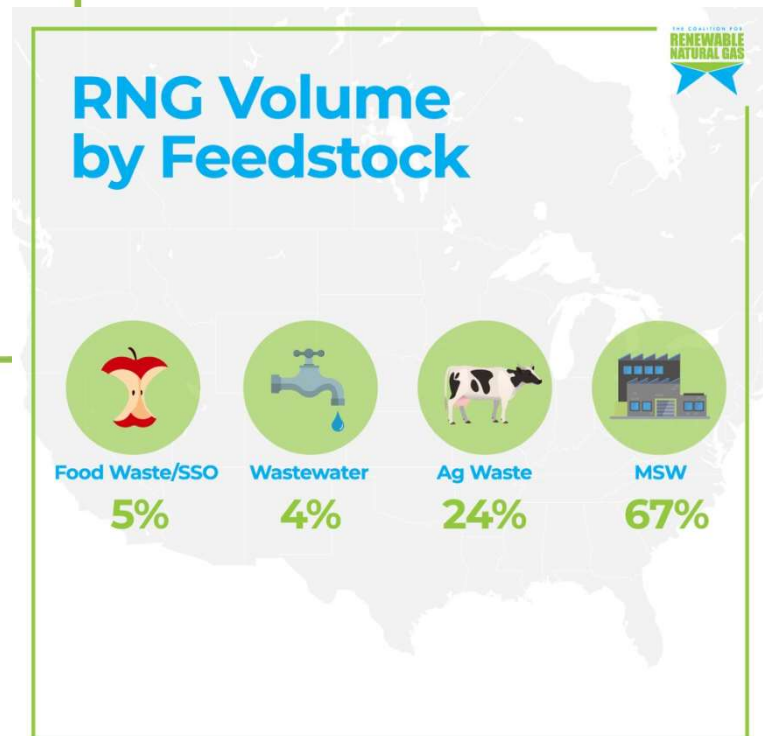
RNG for H2 Production

Alyse Bordelon, Originator of RNG



What is RNG?

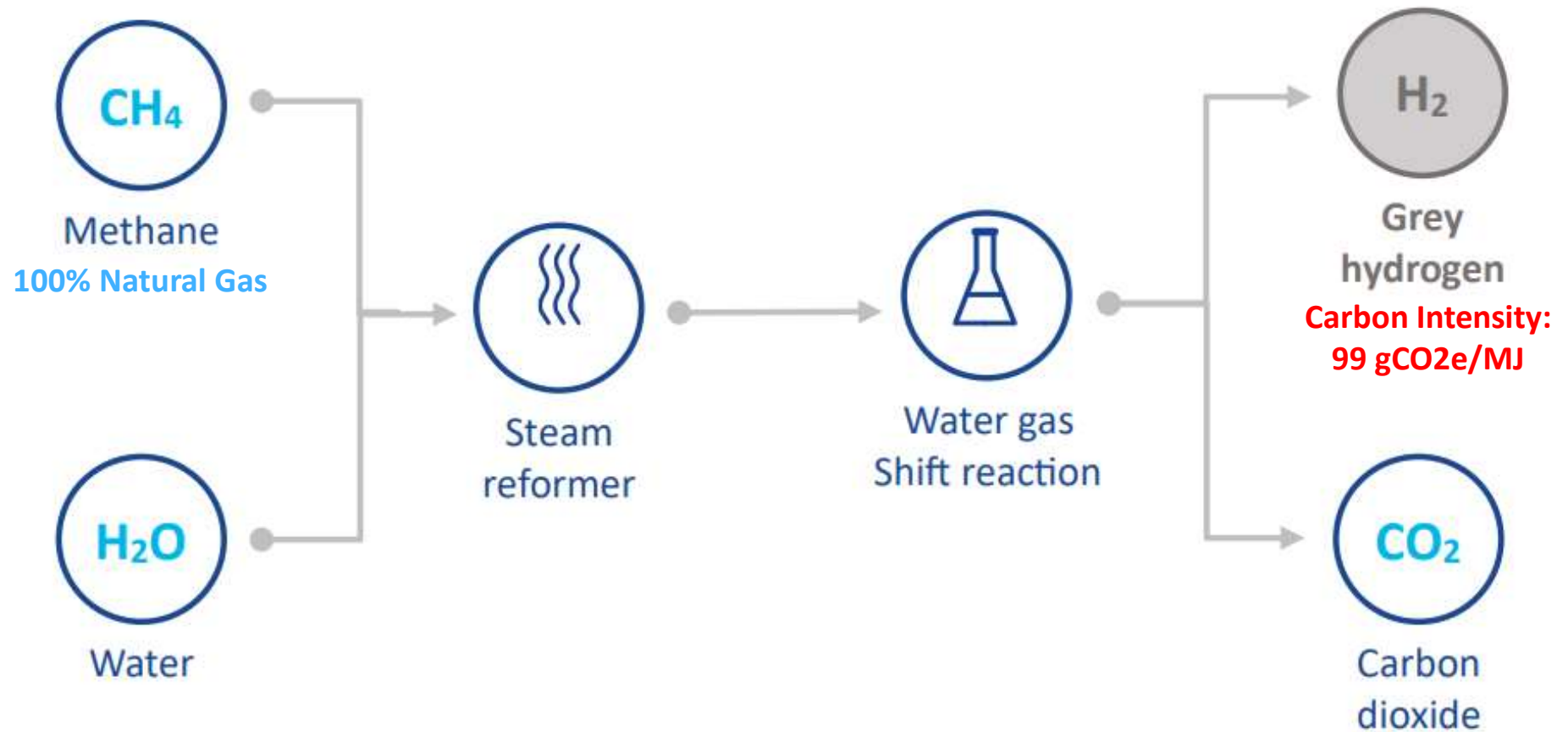
Renewable Natural Gas is pipeline-quality natural gas derived from the decomposition of organic matter. It is originally produced as raw biogas and processed to removed impurities before being injected onto the pipeline like standard natural gas.



Source: RNGCoalition.com (Sept 2024)



Typical Steam Methane Reformer (SMR)



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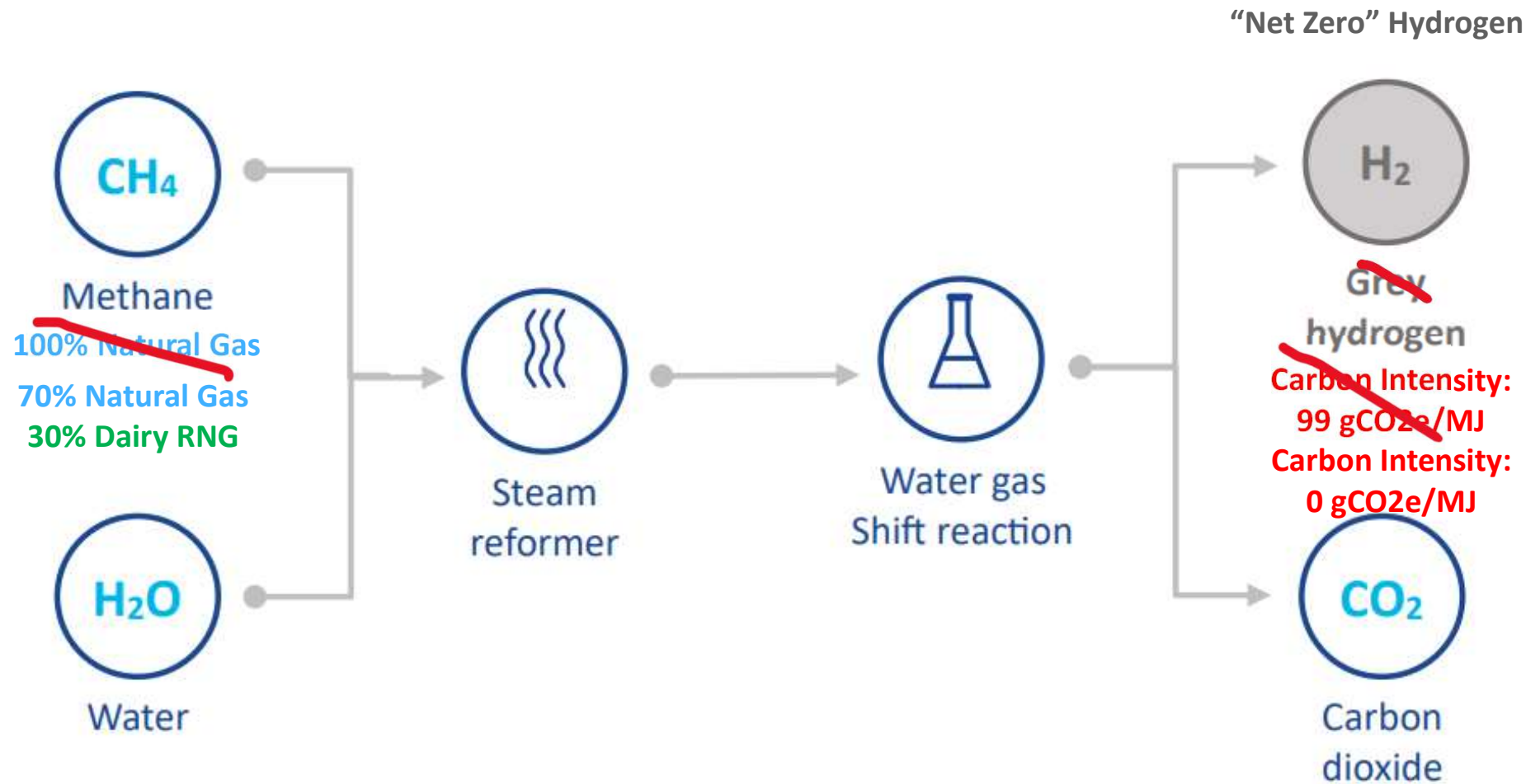






Image Source: www.observatory.clean-hydrogen.europa.eu

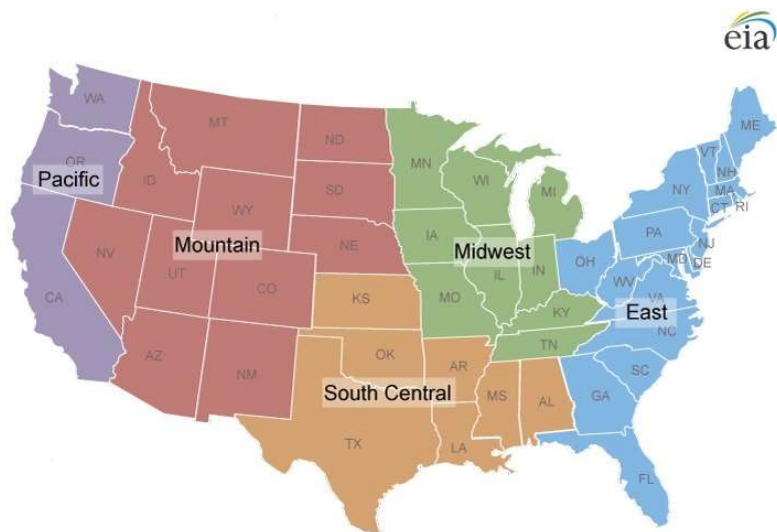
Hydrogen Production “Sample” Products

 LOW CARBON HYDROGEN	 HYDROGEN FROM RNG	 ZERO CARBON HYDROGEN	 HYDROGEN + CCUS
Low carbon hydrogen produced by BayoTech's SMR system from pipeline natural gas.	Low carbon hydrogen produced by fueling BayoTech's SMR system with a blend of renewable natural gas (RNG).	Carbon neutral or carbon negative hydrogen produced by fueling BayoTech's SMR system with a RNG blend > 30%.	Low carbon hydrogen produced by teaming BayoTech SMR with carbon capture utilization and storage equipment (CCUS).
Produced at cost parity with diesel, with a 42% reduction in emissions when consumed at point of production.	RNG is sourced from dairy, food waste & landfills.		

Source: www.bayotech.us

45v Eligibility Draft Guidance: RNG to SMR

3 Pillars	Natural Gas Application	Less Favorable ☹️	More Favorable 😊
Incrementality	Tax credit should influence development of RNG projects	First Productive Use	3-year lookback
Deliverability	Geographic boundary of RNG Eligible Feedstocks	NG Storage Regions (or state specific) Landfill only	Book-and-Claim allowed All Feedstocks
Time Matching	H2 time matching with RNG production	Daily Injection matching	Annual true-up



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