

LOW-CARBON AMMONIA

AN NGO PERSPECTIVE

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Climate Solutions for Industry

We need to do much more to bring emissions to zero by 2050 and hence curb the damaging effects of climate change. It means that we must invest heavily in the solutions that will get us to that goal.

The aim of this project is to provide a comprehensive and modular database of ready-to-go solutions for the next investment cycle in energy intensive industries.



AN INDUSTRY GUIDE TO CLIMATE ACTION

Electrolysis Hydrogen Production in Europe

2021



Cannibalising the Energiewende? 27 Shades of Green Hydrogen

Impact Assessment of REDII Delegated Act on
Electrolytic Hydrogen CO₂ Intensity:
A clear call for additional renewables

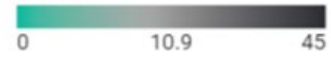
June 2021



Potential carbon intensity of grid-connected electrolytic hydrogen

Tonnes of CO₂ per tonne of hydrogen, compared to grey hydrogen (10.9 tCO₂/tH₂)

tCO₂/tH₂

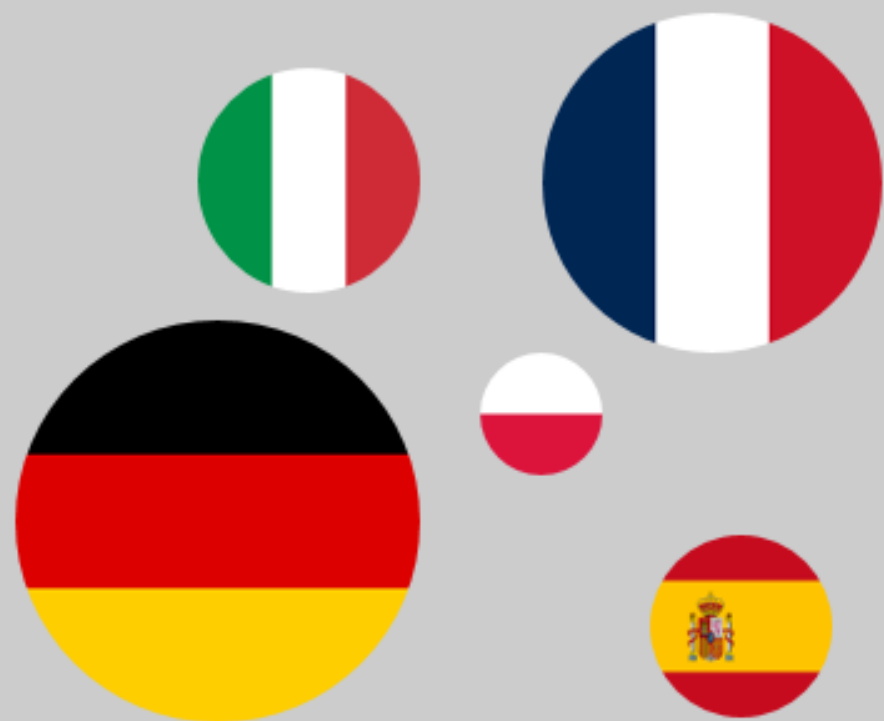


Grey hydrogen break-even



Hydrogen production will consume around 500 TWh of electricity in 2030

Member State demand in 2020

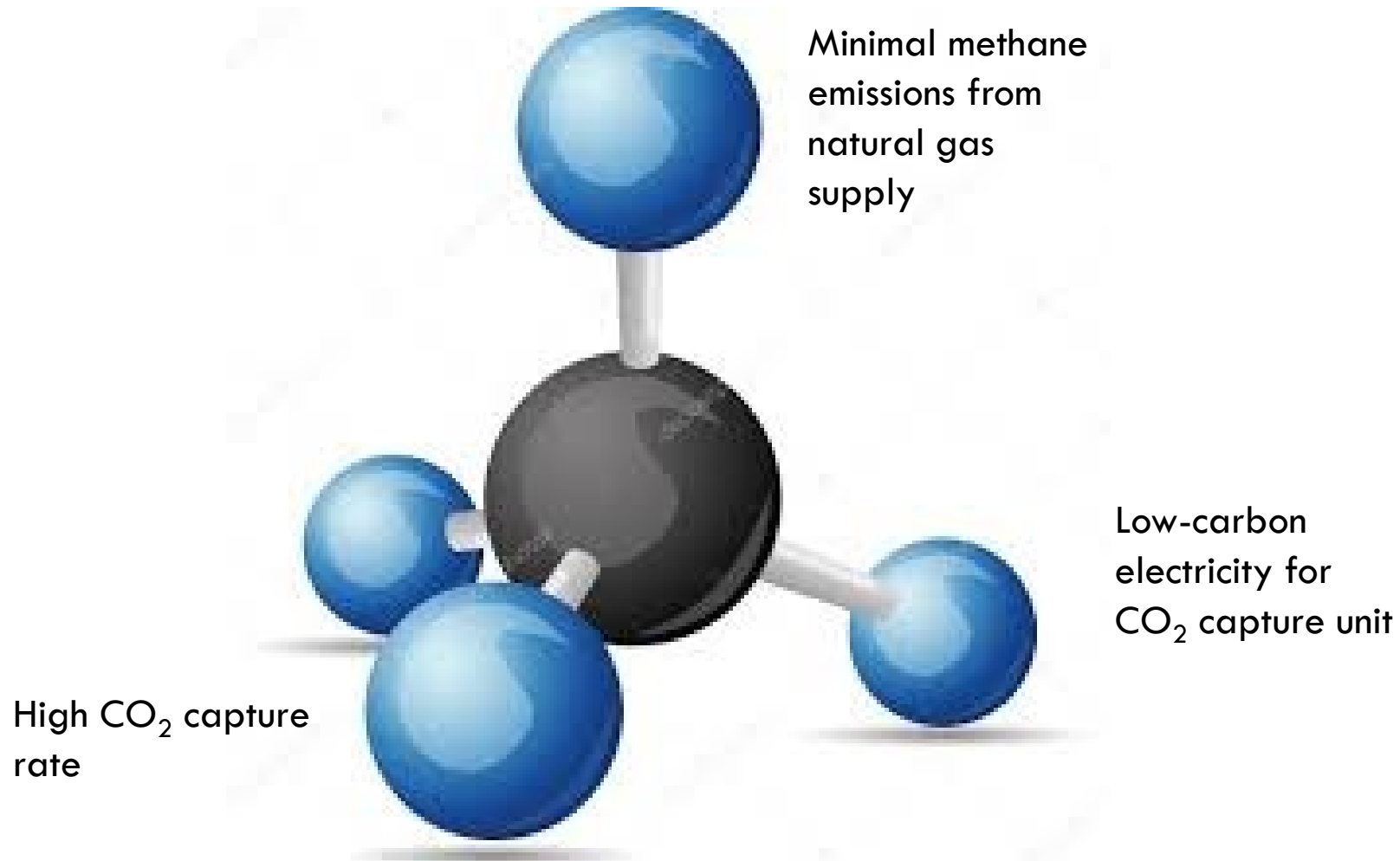


H₂
forecasted
demand
2030

Renewables EU-27 production in 2020



BLUE HYDROGEN, WHEN DONE RIGHT, IS A CLIMATE CHANGE MITIGATION TOOL



CO2 TRANSPORT AND STORAGE INFRASTRUCTURE IS KEY

- Open-access
- Cross-border
- Multiple transport modalities
- Industrial clusters
- Role for states to coordinate and connect emitters with transport and storage operators

BELLONA
EUROPA

Joint call to action for a strategy on regional CO2 infrastructure in the Netherlands, Belgium and North Rhine-Westphalia

CCS4CEE – Building momentum for the long-term CCS deployment in the CEE region



1. WiseEuropa (Lead partner)
2. Bellona (Expertise partner)
3. CIVITTA
4. Energy Policy Group (EPG)
5. Institute for European Integration

The project is implemented by four stakeholders from the region of Central and Eastern Europe in cooperation with the expert partner, Bellona.

KEY MESSAGES

New additional renewables are key for renewable hydrogen/ammonia deployment

There is a role for taxonomy-compatible blue hydrogen/ammonia and CCS in a low-carbon economy

Infrastructure, infrastructure, infrastructure (RES, H₂, CO₂, ammonia)