



Renewable Hydrogen Coalition

**Renewable electricity
is the best hydrogen strategy**

New framework for renewables - will it be enough to meet the targets?

November 9th 2021

The Renewable Hydrogen Coalition

Promotes the critical role of **renewable hydrogen** to deliver the EU's long-term decarbonisation goals



Give a voice to the renewable hydrogen industry in Europe



Build a high-level & interdisciplinary network of innovators, investors, entrepreneurs, industrial off-takers and corporate



Inform the policy debate with concrete proposals for the scaling up & market uptake of renewable hydrogen



Position Europe as the global leader in renewable hydrogen



A Coalition with a growing number of supporters



In collaboration with

EGHAC
European Green Hydrogen
Acceleration Center



EU Market shares

Fossil-based hydrogen

96%

Renewable-based hydrogen

Less than 4%



830

Million tons of CO₂ emitted per year
for fossil fuel hydrogen production
equivalent to the combined
emissions of the UK and Indonesia



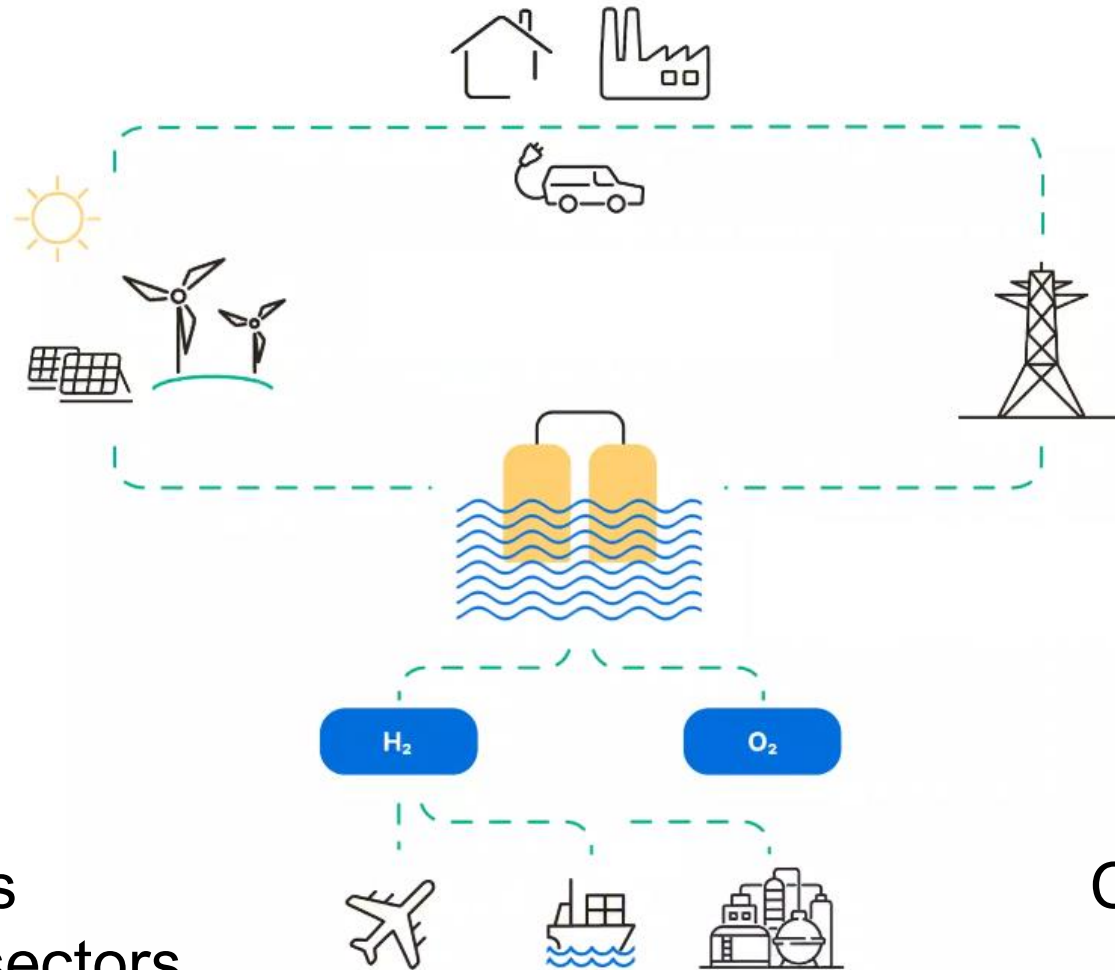
€60bn

Europe's yearly spending in
imported natural gas, also used for
fossil-based hydrogen production



Renewable hydrogen – The missing link

Brings Europe's **vast** wind and solar potential everywhere



Produces **carbon-free** energy with technology 'made in Europe'

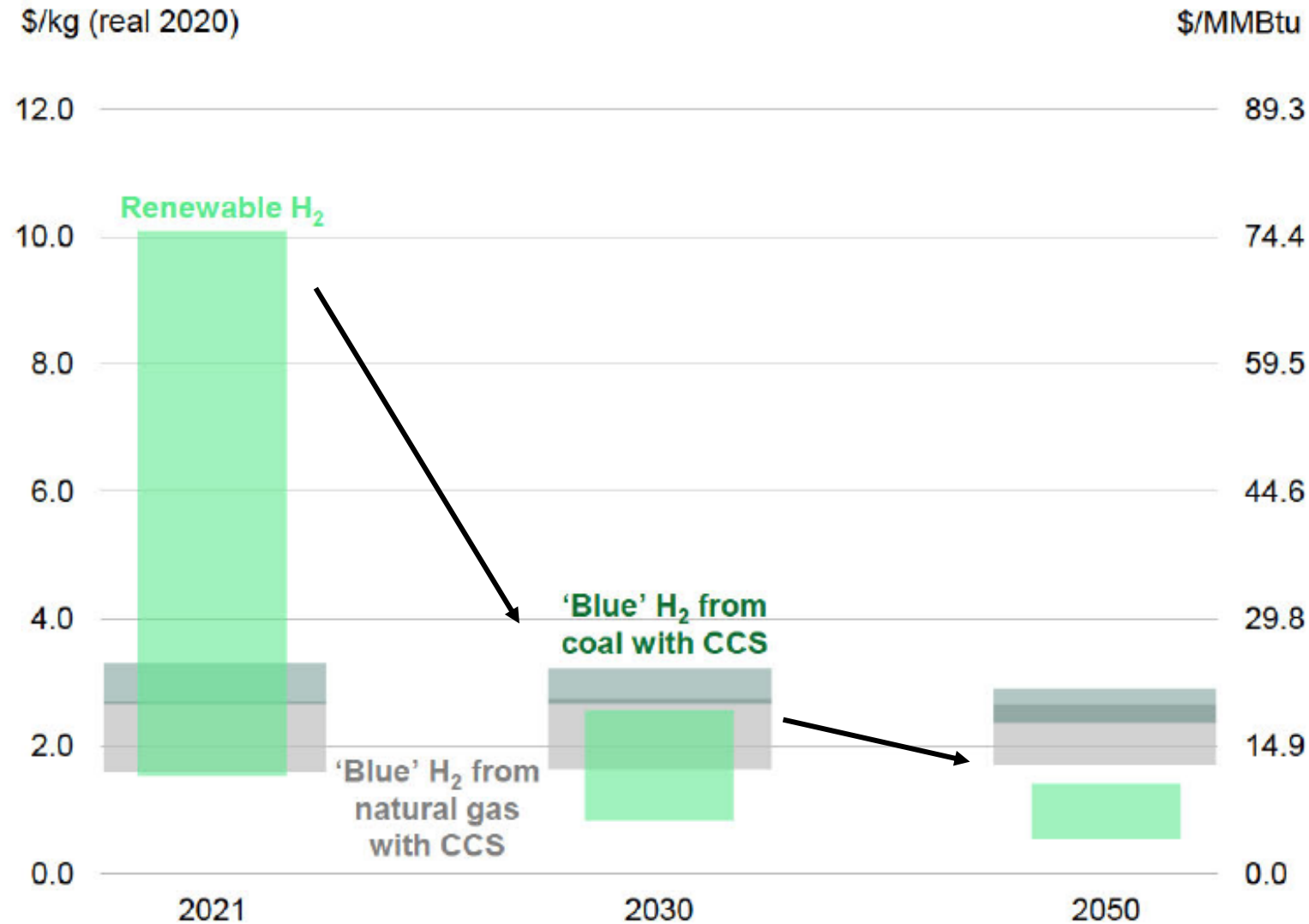
Decarbonises **hard-to-electrify** sectors

Creates **sustainable** jobs and products

Increases Europe's **resilience**



Renewable hydrogen cheaper than 'blue' by 2030



Driven by cheaper

- electrolysers
- renewable electricity



Clear targets for renewable hydrogen in Fit For 55 Package

RENEWABLE ENERGY DIRECTIVE

50% of hydrogen used by industry to be renewable by 2030

2,6% renewable share in fuels for transport by 2030

ALTERNATIVE FUELS INFRASTRUCTURE REGULATION

By 2030, public hydrogen refueling stations with a minimum capacity of 2 tons/day deployed every 150 km along the Trans-European Transport Network

REFUEL EU AVIATION

From 2030, 5% sustainable aviation fuel target with a minimum 0.7% share of synthetic aviation fuels, increasing to 28% by 2050



Ambitious targets call for equally ambitious support

- De-risking projects and bridging the “green premium” cost remain key challenges
- Streamline financial support until renewable hydrogen reaches cost parity with fossil-based hydrogen
 - **State Aid revision must deliver to unlock and accelerate private investment**
- Multiple instruments needed e.g:
 - Carbon Contracts for Difference
 - Government-supported Contract for Difference (CfD) reducing levies imposed on renewable electricity to reduce electrolyser OPEX (mainly electricity)
 - Preferential tax rate for renewable hydrogen over low-carbon hydrogen



The challenge of additionality

- Additionality, temporal and geographical correlation requirements should:
 - Avoid adding burden and complexity on RFNBOs producers only
 - Ensure flexibility to account for technical and economic realities of RFNBOs producers
 - Help make business case for electrolyzers to scale deployment
- Unleash electrolyzers' potential in providing system benefits: count curtailed electricity as additional and accommodate for stored electricity
- Even a balanced approach to additionality will not solve the fundamental problem i.e. **tackle the permitting bottleneck**

Portugal : its unique potential to become a European champion in renewable hydrogen

- Access to very competitive renewable electricity production prices with vast wind and solar potential
- Access to strategic infrastructures (ports, grids)
- Strategic geographical location facilitating exports
- Dedicated funding for renewable hydrogen needed
- Unique opportunity to:
 - Modernise and reduce emissions of hard-to-electrify sectors
 - Reduce natural gas imports





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Hydrogen Coalition

Thank you

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