



International Partnership  
for Hydrogen and Fuel Cells  
in the Economy

## *European Commission* Update

39<sup>th</sup> IPHE Steering Committee Meeting

26 – 27 April 2023

Pretoria, South Africa

# State of Play – Regulatory Framework

## RED conclusion and Hydrogen Targets

The Council and the European Parliament negotiators on 30 March 2023, reached a provisional political agreement to raise the **share of renewable energy in the EU’s overall energy consumption to 42.5% by 2030** with an additional 2.5% indicative top up that would allow to reach 45%. Each member state will contribute to this common target.

### Transport

- a binding target of 14.5% reduction of greenhouse gas intensity in transport from the use of renewables by 2030
- or a binding share of at least 29% of renewables within the final consumption of energy in the transport sector by 2030

The provisional agreement sets a binding combined sub-target of 5.5% for **advanced biofuels** (generally derived from non-food-based feedstocks) and **renewable fuels of non-biological origin** (mostly renewable hydrogen and hydrogen-based synthetic fuels) in the share of renewable energies supplied to the transport sector.

Within this target, there is a minimum requirement of 1% of **renewable fuels of non-biological origin (RFNBOs)** in the share of renewable energies supplied to the transport sector in 2030.

### Industry

Industry would increase their use of renewable energy annually by 1.6%. They agreed that **42% of the hydrogen used in industry** should come from **renewable fuels of non-biological origin (RFNBOs) by 2030** and **60% by 2035**.

The agreement introduces the possibility for member states to discount the contribution of RFNBOs in industry use by 20% under two conditions:

- if the member states’ national contribution to the binding overall EU target meets their expected contribution
- the share of hydrogen from fossil fuels consumed in the member state is not more 23% in 2030 and 20% in 2035

# State of Play – Regulatory Framework

Adoption on 13 February 2023 of Delegated Act on Additionality.

## What are the key principles?

### Additionality

- Hydrogen production should add to the deployment of renewable energy

### Temporal correlation

- Renewable hydrogen should be produced when renewable electricity is available

### Geographic correlation

- There should be no grid congestion between the place where the renewable electricity is produced and where the renewable hydrogen is produced

## How is the matter addressed in the DA?

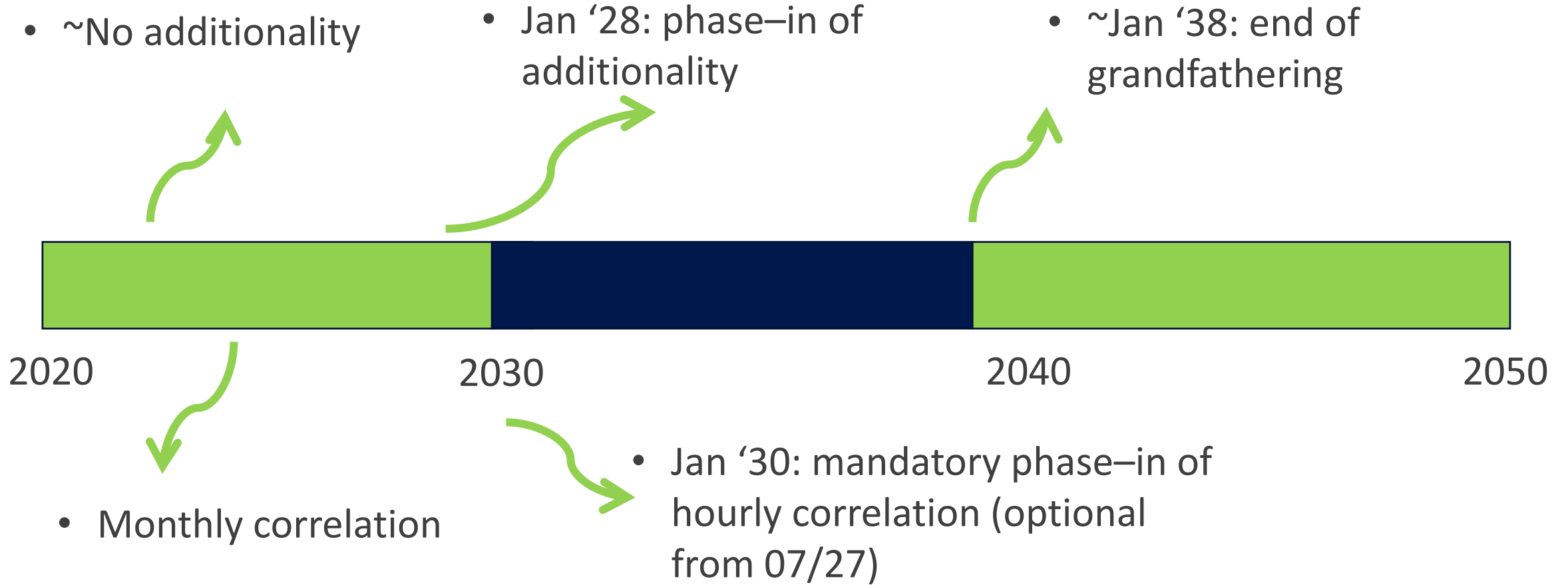
### Direct connection:

- Renewable power asset should **be less than 36 months old**
- Electricity is consumed **at the hours** that the renewable power asset is producing
- Renewable power asset is located **at the site** of the hydrogen production

### Sourcing via the grid:

- **Power purchase agreement** with **unsubsidised** renewable power asset
- Renewable power asset should **be less than 36 months old**
- **Hourly correlation** between hydrogen production and renewable power generation
- Located in the same **bidding zone**

# How is industrial uptake ensured?



# State of Play – Regulatory Framework

## Alternative Fuel Infrastructure Regulation

On 27 March 2023, EU institutions reached a deal on the Alternative Fuels Infrastructure Regulation (AFIR).

- Article 6 of the regulation will mandate the construction of one gaseous **hydrogen refuelling station (HRS)** in every urban node and **every 200 km on the TEN-T core network** by the end of 2030.
- The stations will have a daily **supply capacity of one ton/day** of hydrogen at a pressure of **700 bars** for all modes of road transport.
- Member States must prepare an **HRS deployment plan** outlining a clear indicative target for 2027 that delivers a sufficient coverage of the network with a view of meeting developing market demands.
- *A revision of the regulation is foreseen for 2026 that will among others analyse the need for additional targets on the TEN-T comprehensive network and for liquid hydrogen refuelling stations.*

## Fuel EU Maritime

On 23 March 2023, the EU institutions reached a deal on FuelEU Maritime.

- Ships should be required to gradually **reduce their greenhouse gas emissions by 2% from 2025, 6% from 2030, 14.5% from 2035, 31 % from 2040, 62% from 2045 and 80% from 2050.**
- This will apply to **ships above 5000 gross tonnage**, and to all energy used on board in ports of the European Union, for intra-European cabotage, as well as 50% of the energy used during journeys from or to ports located outside the EU or in the outermost regions.
- **Ships will be required from 2030 to use shore power in major EU ports.** This obligation will also apply to all European ports from 2035, if they have an onshore power supply. Some exemptions if ships stay in port for less than two hours, use their own zero-emission technology....
- Finally, a **2% target for the use of renewable fuels from 2034 by ships** was decided.

# State of Play – Regulatory Framework

## ReFuelEU Aviation

The legislative proposal aims to ensure a level playing field for sustainable air transport by periodically increasing the share of sustainable aviation fuel (SAF) to supply at Union airports starting in 2025. The Commission proposal fully relies on the Renewable Energy Directive (RED) to define and certify SAF.

## The Hydrogen and gas markets decarbonisation package

The legislative proposals aim **to create dedicated hydrogen infrastructure and a hydrogen market**. The proposals introduce **a definition of low-carbon hydrogen (greenhouse gas savings of at least 70%)** and a certification system for low-carbon hydrogen including **a methodology for determining emission savings** to be spelled out in a Delegated Act by the end of 2024.

## The European Hydrogen Bank

The Domestic side of the bank will be implemented through **auctions** under the Innovation Fund. The Commission will launch in autumn 2023 a first auction (EUR 800 million) – or competitive bid – for supporting the production of renewable hydrogen. Winners of this auction will receive **a fixed premium for each kg of renewable hydrogen produced over a period of 10 years**.

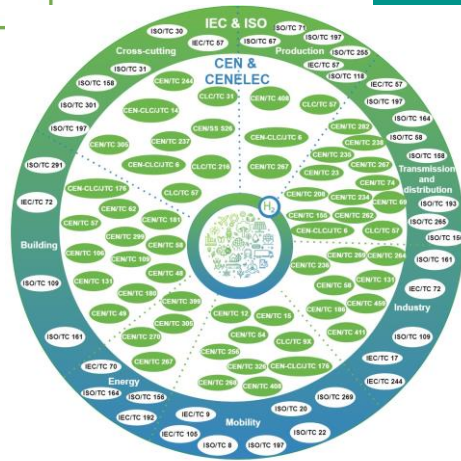


# The European standardization roadmap along the whole hydrogen value chain



- A comprehensive overview on standardization gaps/priorities/ needs along the whole value chain
- streamline of the standardization ideas from different initiatives
- increase of information exchange and a better awareness of future and ongoing standardization activities
- set topics in a timeline

## ROADMAP ON HYDROGEN STANDARDISATION



March 2023

European and international standardisation landscape for hydrogen topics



# Thank you



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