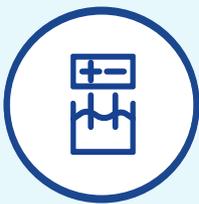


# Hydrogen 101 Factsheets

## Policy and legislative landscape

## THE ROLE OF POLICY AND LEGISLATION IN BOOSTING CLEAN HYDROGEN

Policy and legislative initiatives will play a key role in the future development and deployment of clean hydrogen. Two of the most important aims that regulation can address are:



### BOOSTING SECURITY OF SUPPLY OF CLEAN HYDROGEN

Supply-side measures aim to support the development and deployment of clean hydrogen production. Examples include:

- **Subsidies and tax credits** for production technologies
- **Dedicated financial institutions**, such as the European Hydrogen bank
- **Trade policies** and initiatives that facilitate import corridors



### BOOSTING END-USER DEMAND FOR CLEAN HYDROGEN

Demand-side measures aim to make clean hydrogen competitive with fossil-based alternatives. Examples includes:

- **Mandating future demand through setting targets**. These can be technology-based targets or broader decarbonisation targets that will require hydrogen deployment to be achieved
- **Subsidies and tax credits focused on end uses** such as for refuelling stations or motor vehicles
- **Carbon taxes and carbon levies** that ensure fossil-based alternatives have the price of carbon incorporated into their cost.

## UNDERSTANDING THE EU REGULATORY LANDSCAPE

The EU has developed a comprehensive framework to support the uptake of clean hydrogen through its Hydrogen Strategy and the RePowerEU plan.

This framework sets two key targets that the EU must achieve by 2030:

- **10 million tonnes** of renewable hydrogen **produced**
- **10 million tonnes** of renewable hydrogen **imported**

This framework is supported by a number of regulatory and policy measures that aim to boost supply and demand, and develop the required infrastructure and assets. Some of the key measures are described below.

## Supply-focused measures

### European Hydrogen Bank

The European Hydrogen bank aims to create investment security and business opportunities for European and global renewable hydrogen production by:

- **Boosting domestic renewable hydrogen production** through auctions – starting with the first auction in Autumn 2023 which has been allocated €800 million.
- **Supporting international renewable hydrogen production** through measures such as offering a green premium for renewable hydrogen imports. These measures will be supported by clean hydrogen partnerships.

### Other investment measures

- **Important Projects of Common European Interest (IPCEI) on hydrogen** provide investment support for innovative projects across the supply chain
- **EU funds have been mobilised** to support investment measures, including from the following programmes, measures and institutions: Horizon Europe, ETS Innovation Fund, Connecting Europe Facility for Energy (CEF-E), Connecting Europe Facility for Transport (CEF-T), InvestEU, Life Programme, European Global Hydrogen Facility, Recovery and Resilience Facility (RRF), State Aid and the European Investment Bank (EIB), as well as the European Hydrogen Bank and IPCEI.

### Import corridors

The RePowerEU plan commits to developing import corridors via the Mediterranean, North Sea and ultimately Ukraine.

### Further supply measures

- **Net Zero Industry Act**, which includes measures aimed at promoting investments in the production capacity of products that are key for meeting net zero, including electrolysers and fuel cells;
- **The Offshore Renewable Energy Strategy**, which will support indirect electrification through renewable hydrogen and other decarbonised gases.

## Demand-focused measures

### Technology targets

- **Renewable Energy Directive:** The revised directive (RED III) aims to boost demand through technology-based targets, including the following proposals:
  - **42% industry target** for hydrogen from renewable fuels of non-biological origin (RFNBO) target by 2030 (with a reduced target of 20% for countries that can achieve a fossil-free hydrogen mix of at least 77% by 2030);
  - **5.5% transport target** for fuel composed of advanced biofuels and RFNBOs.
- **Alternative Fuel Infrastructure Regulation:** This sets several mandatory infrastructure targets, including a requirement for there to be **one refuelling station every 200km** along the TEN-T network and every urban node.

### Carbon pricing and levies

- **EU Emission Trading System (ETS)**, which makes renewable hydrogen facilities eligible for free allowances, and ensures carbon is fairly priced for fossil-based production
- Recast **Energy Taxation Directive**, granting minimum tax rates to renewable hydrogen and e-fuels
- **EU Carbon Border Adjustment Mechanism (CBAM)**, which will ensure the cost of imported hydrogen includes a carbon price equivalent to the ETS

### Further demand measures

These include:

- **Delegated regulations** setting requirements for RFNBOs to be considered fully renewable and establishing a methodology to assess GHG emission savings;
- **ReFuel Aviation and ReFuel Maritime initiatives** setting minimum obligations and standards that will increase the use of alternative fuels;
- Recast Regulation and Directive on the **internal markets for renewable and natural gases and for hydrogen**, creating an EU legislative framework for hydrogen networks and setting common rules;
- Recast **Regulation on CO2 emission standards for heavy-duty vehicles**, setting targets on emissions reductions