

# Ukrainian hydrogen strategy

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# Hydrogen production, storage, transport, and use



# National Hydrogen Strategies

Publication dates of national hydrogen strategies across the world per country



### **Recommendations for developing hydrogen strategies for European countries:**

- 1. Define an EU wide terminology for renewable and low carbon hydrogen together with a methodology to calculate life cycle greenhouse gas emissions in order to enable a functioning clean hydrogen economy
- 2. Establish the principle of CO2 as the new "currency" of the energy system
- 3. Promote and support hydrogen market stimulation programs including quotas/targets, dedicated programs and support schemes
- 4. Enable a competitive hydrogen economy by clarifying the market design and supporting sector integration
- 5. Revise the Trans-European Networks Regulation for Energy (TEN-E) Regulation to support the development and roll out of hydrogen networks
- 6. Revise the directive for the Deployment of Alternative Fuels Infrastructure (DAFI) to boost the use of hydrogen in the mobility sector
- 7. Support for a strong, effective and all- encompassing Clean Hydrogen for Europe Partnership
- 8. Remove undue barriers to hydrogen production and hydrogen infrastructure
- 9. Unlock hydrogen's potential by leveraging innovative financial instruments
- 10. Launch the Clean Hydrogen Alliance and establish hydrogen as a key element in global EU climate diplomacy and neighbourhood policy

### **Topical focus areas**

#### Low carbon fuels

- Hydrogen, Synfuels, Biofuels
- Production technologies, cost, and environmental impact analyses
- Infrastructure

#### System analysis

- Sector coupling
- Renewable energy system integration
- Renewable energy generation potential

#### Low carbon technologies

- Renewable energy generation
- Power-to-Gas (PtG), Power-to- Liquids (PtL),
  Power-to-Chemicals etc.
- Energy storage

#### Policy support

- Renewable energy and renewable fuels policies
- Hydrogen-related regulations, codes, and standards

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#### **Objectives of the Strategy**



Development of the Hydrogen Strategy

**Step 1:** Identify the most relevant strategy elements

a. Identify relevant stakeholders in industry and government

b. Map relevant infrastructure elementsc. Run stakeholder workshops to align goals,identify any issues, and rank target sectors

**Step 2:** Suggest initial strategy approach and refine in targeted stakeholder discussions

## Potential of renewable energy sources



#### Distribution of "green" hydrogen potential average annual production

