



# The revision of the TEN-E Regulation and the role of hydrogen

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*28 May 2021*

# The Hydrogen Strategy – a roadmap to 2050

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**2024**

- 6 **GW** of renewable hydrogen electrolyzers
- Replace **existing hydrogen production**
- Regulation for liquid hydrogen markets
- Planning of hydrogen infrastructure

**2030**

- **40 GW** of renewable hydrogen electrolyzers
- New applications in **steel and transport**
- Hydrogen for electricity balancing purposes
- Creation of “Hydrogen Valleys”
- Cross-border logistical infrastructure

**2050**

- Scale-up to **all hard-to-decarbonise sectors**
- Expansion of hydrogen-derived **synthetic fuels**
- EU-wide infrastructure network
- An open international market with € as benchmark

# Making it happen – an action plan for the Hydrogen Strategy

Full value chain approach	Actions oriented towards
An investment agenda	<ul style="list-style-type: none"><li>• Create project pipeline through the <b>Clean Hydrogen Alliance</b></li><li>• €220-340bln renewable power, €24-42bln electrolysers, €65bln infrastructure</li></ul>
Boosting demand and scale up production	<ul style="list-style-type: none"><li>• Comprehensive terminology and EU-wide certification of hydrogen</li><li>• Support schemes and CCfD for renewable and low-carbon hydrogen</li><li>• Demand-side policies in end-use sectors</li></ul>
Develop hydrogen infrastructure and markets	<ul style="list-style-type: none"><li>• Planning of hydrogen transport and storage infrastructure</li><li>• Rules ensuring competitive markets, enabling infrastructure development (incl. repurposing) whilst retaining integrity of internal gas market</li></ul>
Research and Innovation	<ul style="list-style-type: none"><li>• <b>Clean Hydrogen Partnership</b> established</li><li>• Scale up electrolysers and develop hydrogen value chain</li><li>• Continue to support innovative hydrogen technologies</li></ul>
The international dimension	<ul style="list-style-type: none"><li>• International standards, regulation and definitions for hydrogen</li><li>• Promote cooperation</li></ul>

# TEN-E revision – policy context

- Energy infrastructure as a key pillar of EU energy policy to deliver the European Green Deal
- TEN-E Regulation to be fully aligned with the 2050 climate neutrality objective
- Important progress made in the implementation of trans-European energy infrastructure
- New policy challenges such as the accelerated take-up of renewable energy sources and system integration
- Strong stakeholder support for the revision to align the TEN-E policy framework with the new policy context

# Trans-European energy networks at the heart of European energy policy

Market integration

Security of supply

Sustainability

Competitiveness



CO2 transport  
E-highways  
Smart grids

Regional cooperation &  
High Level Groups

*Criteria / CBA*

Union List of PCIs

Accelerated  
permit  
granting

Regulatory  
measures

EU financial  
assistance

# Full alignment of infrastructure with the EGD



- Increased focus on **offshore grids** in four new priority corridors reflecting Europe's sea basins and building on **regional cooperation**
- The TEN-E operationalizes the ambitions in the EU Strategy for Offshore RES by including **integrated offshore development plans, one-stop shop permitting** and regulatory **incentives** to facilitate reaching 300 GW in 2050
- Scale-up of **smart electricity grids**

# Full alignment of infrastructure with the EGD

- **Exclusion of natural gas infrastructure from PCI eligibility** due to achieving an integrated and shock-resilient gas grid in Europe
- **Exclusion of oil pipelines from PCI eligibility**



# Full alignment of infrastructure with the EGD

Instead of natural gas, focus on infrastructure needed for renewable and low carbon gases:

- New and repurposed **dedicated hydrogen networks**
- **Electrolysers** with a cross-border impact (above 100 MW)
- **Smart gas grid solutions** to integrate renewable and low-carbon gases (biogas, biomethane, and hydrogen) into existing gas grid



# Full alignment of infrastructure with the EGD

- Through inclusion of **mandatory sustainability criterion** for all infrastructure categories:
  - Criteria and indicators detailed in Article 4 and Annex IV for each category to be developed and applied in CBA methodologies by Regional Groups;
  - By and large, sustainability to be assessed in terms of the integration of renewable energy sources into the grid or the reduction of greenhouse gas emissions.
  - The more a candidate project contributes to sustainability – meaning renewable energy integration or CO2 reduction, the higher it ranks in the list.

# Strengthened EU planning governance

- Creates an **optimal and efficient integrated infrastructure planning** on the basis of **scenarios** that are fully in line with the latest Union decarbonisation targets and Commission scenarios; identifies **infrastructure needs** based on the energy efficiency first principle.
- Introduces **oversight from the Commission** on the main inputs to the TYNDPs and **strengthens role of ACER**
- Introduces **hydrogen networks** into the TYNDP on gas

# Projects of Mutual Interest (PMIs)

- Scope extended to projects connecting the EU with third countries (including possible hydrogen projects) given their expected increasing role in achieving the climate objectives.
- Conditions:
  - **Regulatory alignment** of the neighbouring country with the EU
  - Impact on at least **two Member States**
  - Mutual benefit, including through contribution to **EU decarbonisation goals**

# Access to funding from the Connecting Europe Facility (CEF)

- Chapter VII updates the eligibility of projects for Union financial assistance for the new infrastructure categories.
- In principle, PCIs have access to CEF funding for both studies and works
- But the following are not eligible for grants for works: electrolysers, hydro-pumped storage
- While PMIs will be eligible for Union financial assistance, only the investments located on the territory of the Union will be eligible for CEF assistance in the form of grants for works under specific conditions.



Thank you

[https://ec.europa.eu/energy/topics/  
infrastructure\\_en](https://ec.europa.eu/energy/topics/infrastructure_en)